



## Investigation into Factors Causing Pregnant Women in Ede South Local Government Area, Osun State, To Underutilize Antenatal Care Services

TAWOSE Oluwatomisin Victoria<sup>1</sup>, AYINDE Abayomi Oluwasegun<sup>2</sup>, FOLAHANMI Tomiwa Akinsolu<sup>3</sup>, AKINOYE John Iyanu<sup>4</sup>, MICHEAL Okechukwu Okafor<sup>4</sup>, FALANA Femi Paul<sup>5</sup>

<sup>1</sup>University of Ibadan (Public Health, Health Policy and Management)

<sup>2</sup>University of Ibadan (Public Health, Epidemiology)

<sup>3</sup>Lead City University, Ibadan Nigeria Institute of Medical Research, Lagos

<sup>4</sup>Babcock University, Ilishan-Remo, Ogun State

<sup>5</sup>University of Ibadan (Public Health, Epidemiology)

<sup>6</sup>Ladoke Akintola University of Technology (Public Health)

**Abstract:** In order to manage and prevent complications related to pregnancy and delivery, antenatal care offers an estimate of key health issues, such as health promotion, illness prevention, screening, diagnosis, and management of disease conditions. Consequently, the study's goal was to determine what variables may be causing pregnant women in Ede South Local Government Area, Osun State, Nigeria, to underuse antenatal care services.

Descriptive cross-sectional survey design was utilized and data collected using pre-tested self-developed structured questionnaire, using the sample size of 422. Leslie Kish formula is used with a prevalence of 49% at a significant level of 5%. Chi square testing was done with the p-value of <0.05.

Primary healthcare facilities were chosen using a multi-stage sample procedure, and respondents were chosen using straightforward random sampling methods. With the assistance of 4 trained assistant data collectors, a total of 422 questionnaires were distributed. 400 of the total recovered questionnaires might be used for analysis. Software SPSS version 21 was used for data analysis. At a significance level of 0.05, two hypotheses were investigated using descriptive and inferential statistics (chi-square and regression).

Findings revealed 92% had a good attitude towards the ANC services, while 96% of the respondents had a good practice on the ANC services while 97% of the respondents report that health workers had good attitude towards the patients. This study shows that Age range (P-value =0.014, df=7, X<sup>2</sup> = 17.661) educational status (P-value =0.045, df=4, X<sup>2</sup> = 9.726), husband educational status (P-value =0.000, df=4, X<sup>2</sup> = 29.677), number of children (P-value =0.004, df=5, X<sup>2</sup> = 17.123), residence (P-value =0.044, df=2, X<sup>2</sup> = 6.229), types of family setting (P-value =0.000, df=4, X<sup>2</sup> = 123.814) and distance of health facility (P-value =0.000, df=3, X<sup>2</sup> = 160.619) are factors that influence the underutilization of ANC services.

According to the study's findings, pregnant women use antenatal care services well, and health care professionals adopt an excellent approach. In order to identify and address any potential issues that could lower the level of infant morbidity and death, it is important to encourage women

to take advantage of the free maternal care services that are offered in all government health facilities.

**Key words:** pregnant women, antenatal care, health, birth

## Introduction

In order to get the optimum outcome for both mother and child, antenatal care involves a clinical evaluation of the mother and fetus during the pregnancy. Over 6 million women become pregnant yearly; 5 million of these pregnancies result in a child being born. Improved maternal and newborn health status is linked to optimal prenatal health service usage (Akhtar. et al;2019).

An important public health initiative to ensure safe pregnancy outcomes is antenatal care (ANC) (Adewuyi. et al; 2018). The opportunity presented by prenatal care allows for the promotion of the advantages of expert delivery attendance and the prodding of mothers to seek postpartum treatment for both themselves and their child. Also, this is a good opportunity to inform women about the advantages of child spacing (Reynolds, Wong et al. 2014). The ANC gives an assessment of important health issues, such as illness prevention, screening, and diagnosis as well as health promotion.

All struggles commenced to preserve the physical and mental well-being of the mothers, to prevent premature labor, to predict difficulties and complications at birth and it ensures decrease number of maternal mortality and morbidity (Organization, 2016)

ANC, also known as ‘health care during pregnancy’, entails periodic visits by pregnant women to designated Primary Health Care Centers (PHC) staffed and equipped for maternity services (RCOG Press. 2008., WHO. 2011). The World Health Organization (WHO) promotes a ‘focussed’ ANC package which requires a minimum of four antenatal attendance affording pregnant women the opportunity of appropriate counselling, micronutrient supplementation (folic acid and iron), medical screening, vaccination and preventive treatment for malaria, all aimed at ensuring safe pregnancy outcomes (WHO. 2011). Conditions such as hepatitis, human immunodeficiency virus, high blood pressure and gestational diabetes are usually screened for, during ANC visit (Menendez. *et al*;2007).

Every minute, at least one-woman dies from the pregnancy related complication or childbirth, or 529,000 women a year. Moreover, about 20 more people suffer from injuries, infections or illnesses that affect about 10 million women every year, for every woman who dies at birth. Studies show that the cause of maternal mortality in developing countries is mainly due to poor access to maternal health care. Because of poor antenatal and maternity ward, as well as inadequacies in available care (Igbokwe, 2012). Expectant mothers indicated that 49% received no antenatal care, even in the presence of no cost and low cost public health sector ANC services(Majrooh *et al*; 2014)

In Nigeria, the recommended minimum of four times ANC attendance is underutilized (Adewuyi *et al*; 2018). ANC attendance of the recommended minimum of four times (focused ANC) (WHO, 2011) remains low in Nigeria (Health Survey 2013, Dahiru, 2015)

Nigeria shares a disproportionately high burden of the global maternal and neonatal mortalities, ranking as the first and the second country in the world for the highest number of deaths among mothers and neonates, respectively (Health Survey 2013, Adewuyi *et al*; 2018). These poor indices may be linked with the low utilization of maternal healthcare services in the country (Health Survey 2013, Adewuyi *et al*; 2017).

## Objective

**General objective:** To determine the factors contributing to underutilization of Antenatal Care Services by the Pregnant women in Ede South Local Government Area (LGA), Osun State, Nigeria. The specific objectives are to:

1. Determine the level of knowledge of pregnant women on ANC Services in Ede South L.G.A
2. Determine the attitude of pregnant women towards ANC Services in Ede South L.G.A
3. Assess the practice of pregnant women with regards to ANC Services in Ede South L.G.A
4. Assess the attitude of health care workers towards the pregnant women who attend PHC for ANC Services in Ede South L.G.A.
5. Identify the factors contributing to underutilization of Antenatal Care Services in Ede South L.G.A

## Research Questions

1. What is the level of knowledge of pregnant women on ANC Services in Ede South L.G.A?
2. What Is the attitude of pregnant women towards ANC Services in Ede South L.G.A?
3. What is the level of practice of pregnant women with regards to ANC Services in Ede South L.G.A
4. What is the attitude of health workers to patients who attend PHC for ANC Services?
5. What are the contributing factors to underutilization of Antenatal Care Services in Ede South L.G.A?

## Hypotheses

**Ho1:** There is no significant relationship between knowledge of pregnant women on antenatal care services and attitude of pregnant women towards ANC services and

**Ho2:** There is no significant relationship between knowledge of pregnant women on antenatal care services and practice of pregnant women towards ANC services and

## Materials and Methods

### Study area

This study adopted a descriptive cross-sectional design. In Ede, this study was carried out. Osun state's Ede is a town. One of Yoruba land's ancient towns is Ede. 2 Local Governments are present (Ede north and Ede South).. There are 20 medical facilities and 10 wards in Ede South. According to the 2006 census, there were 76,035 people living in Ede North. 16,728 people live in WCBA, or 22% of the total population. It has a market, pre-primary, primary, and secondary educational facilities, as well as primary health care facilities. Farmers, traders, and government employees make up the majority of the population.

### Study Population

The population of this study comprises pregnant women attending Antenatal Care Services in Ede South Local Government Area (LGA), Osun State, Nigeria.

### Method of data analysis

The data collected were coded, entered, clean and analyzed using Statistical Package for Social Scientists (IBM, SPSS) version 21. A descriptive analysis was done and presented with tables and frequencies and simple percentage. Also an inferential statistic was done to determine the level of association between some selected independents and dependents variables at p-value less than 0.05

## Result

### Socio-Demographic Characteristics

**Age range:** Out of 400 respondents, 104 (26%) were within the age range of 25-29 years, 104(25.5%) were within the age range of 30-34 year, 70 (17.5%) were within the age range of 35-

39 years, 41 (10.3%) were within the age range of 20-24 years, 38 (9.5%) were within the age range of 40-44 years, 25 (6.3%) were within the age range of 45-49 years, 12 (3%) do not respond while 8 (2%) were within the age range of 15-19 years. (Mean Age = 30.72 years, median = 30 years, mode = 30 years. Minimum age = 15 years, Maximum Age = 48 years.) 376 respondents (94%) were married, 20 (5%) were single and 4 (1%) were separated. 262 (65.5%) were Christian, 115 (28.8%) were Muslim while 23 (5.8%) were traditional worshippers. Findings also revealed that 199 (49.8%) had tertiary level of education, 123 (30.8%) had secondary level of education, 40 (10%) had no formal education, 19 (4.8%) had primary level of education while 19 (4.8%) do not respond. Also 126 (31.5%) were traders, 88 (22%) were civil servants, 72 (18%) had handiwork, 52 (13%) were students while 50 (12.5%) were house wife. This research also shows that 253 (63.3%) had tertiary level of education, 98 (24.5%) had secondary level of education, 32 (8%) had no formal education, 14 (3.5%) had primary level of education while 3 (0.8%) do not respond. Also the finding shows that out of 400 respondents, 92 (23%) were traders, 108 (27%) were civil servants, 92 (23%) had handiwork, 18 (4.5%) were students while 18 (4.5%) had no job. Out of 400 respondents, 331 (82.8%) of the respondents were Yoruba, 37 (9.3%) were igbo, 23 (5.8%) were Huasa, 3 (0.8%) were Efik, 3 (0.8%) were Ibibio while 3 (0.8%) do not respond. Out of 400 respondents, 228 (57%) earned less than #50,000, 107 (26.8%) earned #51,000- #100,000, 26 (6.5%) earned #101,000- #150,000, 18 (4.5%) earned above #151,000 while 21 (5.3%) do not respond. Out of 400 respondents, 230 (57.5%) lives in urban area, 136 (34%) lives in rural area while 34 (8.5%) do not respond. 261 respondents (65.3%) keeps a nuclear family, 69 (17.3%) keeps an extended family, 34 (8.5%) keeps a monogamous family, 22 (5.5%) keeps a polygamous family while 14 (3.5%) do not respond. Out of 400 respondents, 151 (37.8%) lives 1-2 Km away from the health facility, 125 (31.3%) lives <1 Km away from the health facility, 113 (28.3%) lives 3-5 Km away from the health facility, while 11 (2.8%) do not respond. Also 89 respondents (22.3%) have had 2 pregnancies, 81 (20.3%) have had 3 pregnancies, 72 (18%) have had a pregnancy, 42 (10.5%) have had 4 pregnancies, 26 (6.5%) have had 5 pregnancies, 8 (2%) have had 6 pregnancies, while 82 (20.5%) do not respond. Out of 400 respondents, 111 (27.8%) had 2 children, 84 (21%) had a child, 70 (17.5%) had 3 children, 38 (9.5%) had 4 children, 32 (8%) had 5 children while 65 (16.3%) do not respond.

TABLE 4.1: Sociodemographic Characteristics

S/N	VARIABLES	RESPONSE	FREQUENCY	PERCENTAGE (%)
1.	AGE RANGE	No Response	12	3.0
		15-19	8	2.0
		20-24	41	10.3
		25-29	104	26.0
		30-34	102	25.5
		35-39	70	17.5
		40-44	38	9.5
		45-49	25	6.3
		TOTAL	400	100
2.	MARITAL STATUS	Single	20	5.0
		Married	376	94.0
		Separated	4	1.0
		Total	400	100.0
3.	RELIGION	Christianity	262	65.5
		Islam	115	28.8

		Traditional	23	5.8
		Total	400	100.0
4.	EDUCATIONAL STATUS	No Response	19	4.8
		No Formal education	40	10.0
		Primary	19	4.8
		Secondary	123	30.8
		Tertiary	199	49.8
		Total	400	100.0
5.	Occupation	No response	12	3.0
		House Wife	50	12.5
		Student	52	13.0
		Trader	126	31.5
		Civil Servant	88	22.0
		Handiwork	72	18.0
		Total	400	100.0
6.	HUSBAND EDUCATIONAL STATUS	No Response	3	0.8
		No Formal education	32	8.0
		Primary	14	3.5
		Secondary	98	24.5
		Tertiary	253	63.3
		Total	400	100.0
7.	HUSBAND OCCUPATION	No response	12	3.0
		No Job	18	4.5
		Student	18	4.5
		Trader	92	23.0
		Civil Servant	108	27.0
		Handwork	92	23.0
		Farmer	60	15.0
		Total	400	100.0
8.	ETHNICITY	No Response	3	0.8
		Yoruba	331	82.8
		Igbo	37	9.3
		Hausa	23	5.8
		Efik	3	0.8
		Ibibio	3	0.8
		Total	400	100
9.	MONTHLY FAMILY INCOME	No Response	21	5.3
		<50,000	228	57.0
		51,000- 100,000	107	26.8
		101,000- 150,000	26	6.5
		>151,000	18	4.5
		Total	400	100.0
10.	RESIDENCE	No Response	34	8.5
		Rural	136	34.0
		Urban	230	57.5

		Total	400	100.0
11.	TYPE OF FAMILY SETTINGS	No Response	14	3.5
		Nuclear	261	65.3
		Extended	69	17.3
		Monogamous	34	8.5
		Polygamous	22	5.5
		Total	400	100.0
12.	DISTANCE OF HEALTH FACILITY FROM HOME	No Response	11	2.8
		<1 Km	125	31.3
		1-2 Km	151	37.8
		3-5 Km	113	28.3
		Total	400	100.0
13.	PARITY	No Response	82	20.5
		1	72	18
		2	89	22.3
		3	81	20.3
		4	42	10.5
		5	26	6.5
		6	8	2.0
Total	400	100.0		
14.	NUMBER OF CHILDREN	No Response	65	16.3
		1	84	21
		2	111	27.8
		3	70	17.5
		4	38	9.5
		5	32	8.0
		Total	400	100

#### 4.2 Knowledge Of Pregnant Women On ANC Services

TABLE 4.2: KNOWLEDGE OF PREGNANT WOMEN ON ANC SERVICES

S/N	VARIABLES	YES (%)	NO (%)	NO RESPONSE (%)	TOTAL (%)
1.	Do pregnant women need to go for antenatal check-up?	360 (90.0)	34 (8.5)	6 (1.5)	400 (100.0)
2.	Attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications	384 (96.0)	5 (1.3)	11 (2.8)	400 (100.0)
3.	Antenatal care clinic can prevent newborn deformity	376 (94.0)	16 (4.0)	8 (2.0)	400 (100.0)
4.	Antenatal care clinic can correct or improve the nutrients deficiency	366 (91.5)	11 (2.8)	23 (5.8)	400 (100.0)
5.	Adequate antenatal care clinic visits should not be more than four visits or less	248 (62.0)	137 (34.3)	15 (3.8)	400 (100.0)
6.	Pregnant women need to take extra food as compared with non-pregnant women	333 (83.3)	52 (13)	15 (3.8)	400 (100.0)

7.	Regular and strenuous exercise is dangerous and may be unsafe for the health of the foetus	264 (66.0)	112 (28)	24 (6.0)	400 (100.0)
8.	Increase in nutrients-rich diet is necessary for good birth outcome	373 (93.3)	9 (2.3)	18 (4.5)	400 (100.0)
9.	Is it necessary to give Tetanus injection during pregnancy?	374 (93.5)	9 (2.3)	17 (4.3)	400 (100.0)
10.	Does pregnant woman need vitamin supplement and iron folic acid tablet during pregnancy?	372 (93.0)	12 (3.0)	16 (4.0)	400 (100.0)
11.	Regular Blood pressure examination is necessary during pregnancy.	367 (91.8)	15 (3.8)	18 (4.5)	400 (100.0)
12.	Can high blood pressure affect the foetus growth?	362 (90.5)	20 (5.0)	18 (4.5)	400 (100.0)

This findings revealed that out of 400 respondents, 360 (90%) knows that pregnant women need to go for antenatal check-up, 34 (8.5%) do not know that pregnant women need to go for antenatal check-up while 6 (1.5%) do not respond.

Out of 400 respondents, 384 (96%) knows that attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications, 5 (1.3%) do not know that attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications while 11 (2.8) do not respond. Out of 400 respondents, 376 (94%) knows that Antenatal care clinic can prevent newborn deformity, 16 (4%) do not know that Antenatal care clinic can prevent newborn deformity while 8 (2%) do not respond. Out of 400 respondents, 366 (94%) knows that Antenatal care clinic can correct or improve the nutrients deficiency, 11 (2.8%) do not know that Antenatal care clinic can correct or improve the nutrients deficiency, while 23 (5.8%) do not respond. Out of 400 respondents, 248 (62%) knows that Adequate antenatal care clinic visits should not be more than four visits or less, 137 (34.3%) do not know that Adequate antenatal care clinic visits should not be more than four visits or less while 15 (3.8%) do not respond. From 400 respondents, 333 (83.3%) knows that Pregnant women need to take extra food as compared with non-pregnant women, 52 (13%) do not know that Pregnant women need to take extra food as compared with non-pregnant women while 15 (3.8%) do not respond. Out of 400 respondents, 264 (66%) knows that Regular and strenuous exercise is dangerous and may be unsafe for the health of the foetus, 112 (28%) do not know that Regular and strenuous exercise is dangerous and may be unsafe for the health of the foetus, while 24 (6%) do not respond

Out of 400 respondents, 373 (93.3%) knows that Increase in nutrients-rich diet is necessary for good birth outcome, 9 (2.3%) do not know that Increase in nutrients-rich diet is necessary for good birth outcome while, 17 (4.3%) do not respond. From 400 respondents, 374 (93.5%) knows that it is necessary to give Tetanus injection during pregnancy, 9 (2.3%) do not know that it is necessary to give Tetanus injection during pregnancy while 17 (4.3%) do not respond. This study also revealed that from 400 respondents, 372 (93%) knows that pregnant woman need vitamin supplement and iron folic acid tablet during pregnancy, 12 (1.3%) do not know that pregnant woman need vitamin supplement and iron folic acid tablet during pregnancy while 16 (4%) do not respond. Out of 400 respondents, 367 (91.8%) knows that Regular Blood pressure examination is necessary during pregnancy, 15 (3.8%) do not know that Regular Blood pressure examination is necessary during pregnancy while 18 (4.5%) do not respond. Out of 400 respondents, 362 (90.5%) knows that high blood pressure affect the foetus growth, 20 (5%) do not know that high blood pressure affect the foetus growth while 18 (4.5%) do not respond.

TABLE 4.3: APPROPRIATE TIME FOR ANC CHECK-UP

ANC checkup should start during pregnancy from:	RESPONSE (%)
1st trimester	250 (62.5)
2 <sup>nd</sup> trimester	98 (24.5)
3 <sup>rd</sup> trimester	40 (10)
No response	12 (3.0)

TABLE 4.4: SAFETY MEASURES FOR PREGNANT WOMEN.

Safety measures for pregnant women include	RESPONSE (%)
complete rest	280 (70.0)
eat good and balanced diet	329 (82.3)
don't pick heavy load	240 (60.0)
regular check up	253 ( 63.3)

In table 4.3, Out of 400 respondents, 250 (62.5%) reported that ANC checkup should start at 1<sup>st</sup> trimester, 98 (24.5%) reported that ANC checkup should start at 2<sup>nd</sup> trimester, 40 (10%) reported that ANC checkup should start at 3<sup>rd</sup> trimester while 12 (3%) do not respond.

In table 4.4, 280 (70%) of the respondents reported that complete rest is a safety measures for pregnant women, 329 (82.3%) reported that eating good and balanced diet is a safety measures for pregnant women, 240 (60%) reported that not carrying heavy load is a safety measures for pregnant women, while 253 (63.3%) reported that regular checkup is a safety measures for pregnant women.

FIGURE 4.1: KNOWLEDGE OF RESPONDENTS ON ANC SERVICES



Figure 4.1: above was derived from scoring the questions on knowledge in the questionnaire. The questions include: Do pregnant women need to go for antenatal check-up? , Attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications, Antenatal care clinic can prevent newborn deformity, Antenatal care clinic can correct or improve the nutrients deficiency, Adequate antenatal care clinic visits should not be more than four visits or less, Pregnant women need to take extra food as compared with non-pregnant women, Regular and strenuous exercise is dangerous and may be unsafe for the health of the foetus, Increase in nutrients-rich diet is necessary for good birth outcome, Is it necessary to give Tetanus injection during pregnancy?, Does pregnant woman need vitamin supplement and iron folic acid



tablet during pregnancy?, Regular Blood pressure examination is necessary during pregnancy, and Can high blood pressure affect the foetus growth?

Out of 400 respondents, 392 (98%) are knowledgeable on antenatal care services while 8 (2%) are not knowledgeable.

### 4.3 ATTITUDE OF PREGNANT WOMEN TOWARDS ANC SERVICES

TABLE 4.5: ATTITUDE OF PREGNANT WOMEN TOWARDS ANC SERVICES

S/N	VARIABLES	Strongly Agree (%)	Agree. (%)	Disagree (%)	Strongly Disagree (%)	N. R (%)	TOTAL (%)
1.	Early antenatal booking is good for my pregnancy	306 (76.5)	64 (16.0)	8 (2.0)	6 (1.5)	16 (4.0)	400 (100.0)
2.	Limit the frequency of my visit to antenatal care clinic because of the cost of each session	154 (38.5)	45 (11.3)	100 (25.0)	82 (20.5)	19 (4.8)	400 (100.0)
3.	Dislike attending antenatal care clinic because it's boring	118 (29.5)	36 (9.0)	72 (18.0)	162 (40.5)	12 (3.0)	400 (100.0)
4.	Dislike antenatal care clinic because it is time consuming	124 (31)	35 (8.8)	100 (25.0)	126 (31.5)	15 (3.8)	400 (100.0)
5.	Attend antenatal care sessions because its counsels are about the women's health alone	152 (38)	106 (26.5)	99 (24.8)	30 (7.5)	13 (3.3)	400 (100.0)
6.	Advice regarding proper health during pregnancy can be gotten outside the hospital	142 (35.5)	76 (19.0)	111 (27.8)	65 (16.3)	6 (1.5)	400 (100.0)
7.	Antenatal follow up is good to monitor mother's and foetus' health	294 (73.5)	56 (14.0)	41 (10.3)	3 (0.8)	6 (1.5)	400 (100.0)
8.	Prefer going for antenatal care because all other pregnant women go too	120 (30)	108 (27.0)	151 (37.8)	15 (3.8)	6 (1.5)	400 (100.0)
9.	Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center	45 (11.3)	49 (12.3)	168 (42.0)	132 (33.0)	6 (1.5)	400 (100.0)
10.	Nature of care/ services during pregnancy is from family	83 (20.8)	103 (25.8)	153 (38.3)	48 (12.0)	13 (3.3)	400 (100.0)

This study revealed that out of 400 respondents, 306 (76.5%) Strongly Agree that Early antenatal booking is good for their pregnancy, 64 (16%) agree that early antenatal booking is good for their pregnancy, 8 (2%) disagree that early antenatal booking is good for their pregnancy, 6 (1.5%) strongly disagree that early antenatal booking is good for their pregnancy, while 16 (4%) do not respond. This study also stated that out of 400 respondents, 154 (38.5%) Strongly Agree that they limit the frequency of their visit to antenatal care clinic because of the cost of each session, 45 (11.3%) agree that they limit the frequency of their visit to antenatal care clinic because of the cost of each session, 100 (25%) disagree that they limit the frequency of their visit to antenatal care clinic because of the cost of each session, 82 (20.5%) strongly disagree that Limit the frequency of their visit to antenatal care clinic because of the cost of each session, while 19 (4.8%) do not respond. Out of 400 respondents, 118 (29.5%) Strongly Agree that they dislike attending antenatal care clinic because it's boring 36 (9%) agree that they dislike attending antenatal care clinic because it's boring, 72 (18%) disagree that they dislike attending antenatal care clinic because it's boring, 162 (40.5%) strongly disagree that they dislike attending antenatal care clinic because it's boring, while 12 (3%) do not respond. From this study, out of 400 respondents, 124 (31%) Strongly agree that they dislike antenatal care clinic because it is time consuming 35 (8.8%) agree that they dislike antenatal

care clinic because it is time consuming, 100 (25%) disagree that they Dislike antenatal care clinic because it is time consuming, 126 (31.5%) strongly disagree that they dislike antenatal care clinic because it is time consuming, while 15 (3.8%) do not respond. Out of 400 respondents, 152 (38%) Strongly Agree that they attend antenatal care sessions because its counsels are about the women's health alone 106 (26.5%) agree that they attend antenatal care sessions because its counsels are about the women's health alone, 99 (24.8%) disagree that they attend antenatal care sessions because its counsels are about the women's health alone, 30 (7.5%) strongly disagree that they attend antenatal care sessions because its counsels are about the women's health alone, while 13 (3.3%) do not respond. Out of 400 respondents, 142 (35.5%) Strongly Agree that Advice regarding proper health during pregnancy can be gotten outside the hospital 76 (19%) agree that Advice regarding proper health during pregnancy can be gotten outside the hospital, 111 (27.8%) disagree that Advice regarding proper health during pregnancy can be gotten outside the hospital, 65 (16.3%) strongly disagree that Advice regarding proper health during pregnancy can be gotten outside the hospital, while 6 (1.5%) do not respond. It was revealed from this study that out of 400 respondents, 294 (73.5%) Strongly Agree that Antenatal follow up is good to monitor mother's and foetus' health 56 (14%) agree that Antenatal follow up is good to monitor mother's and foetus' health, 41 (10.3%) disagree that Antenatal follow up is good to monitor mother's and foetus' health, 3 (0.8%) strongly disagree that Antenatal follow up is good to monitor mother's and foetus' health, while 6 (1.5%) do not respond. Out of 400 respondents, 120 (30%) Strongly Agree that they Prefer going for antenatal care because all other pregnant women go too 108 (27%) agree that they Prefer going for antenatal care because all other pregnant women go too, 151 (37.8%) disagree that they Prefer going for antenatal care because all other pregnant women go too, 15 (3.8%) strongly disagree that they Prefer going for antenatal care because all other pregnant women go too, while 6 (1.5%) do not respond. Out of 400 respondents, 45 (11.3%) Strongly Agree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center 49 (12.3%) agree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, 168 (42.5%) disagree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, 132 (33%) strongly disagree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, while 6 (1.5%) do not respond.

Out of 400 respondents, 83 (20.8%) Strongly Agree that Nature of care/ services during pregnancy is from family 103 (20.8%) agree that Nature of care/ services during pregnancy is from family, 153 (38.3%) disagree that Nature of care/ services during pregnancy is from family, 48 (12%) strongly disagree that Nature of care/ services during pregnancy is from family while 13 (3.3%) do not respond.

**FIGURE 4.2: ATTITUDE OF RESPONDENTS TOWARDS ANC SERVICES**

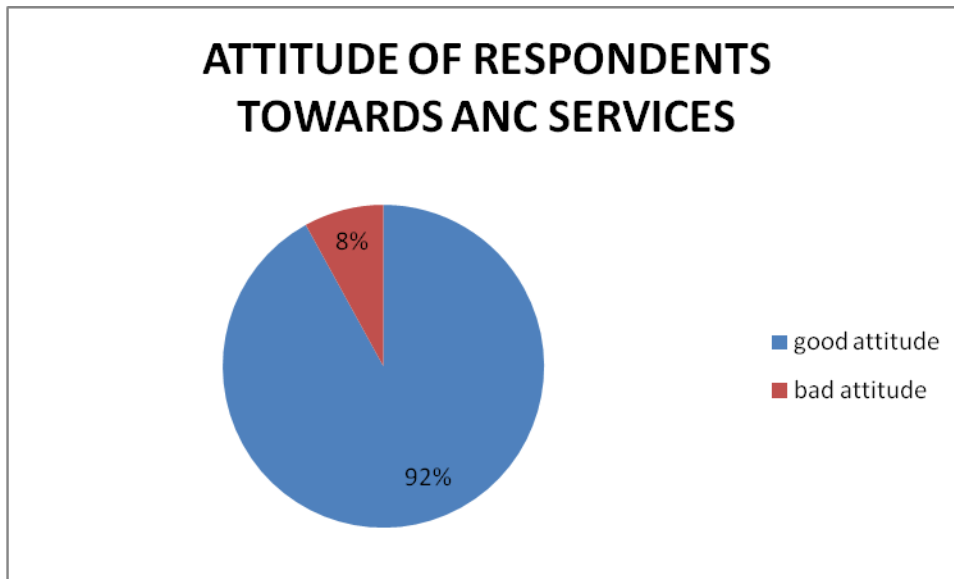


Figure 4.2 above was derived from scoring the statements on attitude of respondents towards ANC in the questionnaire. The statements include: Early antenatal booking is good for my pregnancy, Limit the frequency of my visit to antenatal care clinic because of the cost of each session, Dislike attending antenatal care clinic because it's boring, Dislike antenatal care clinic because it is time consuming, Attend antenatal care sessions because its counsels are about the women's health alone, Advice regarding proper health during pregnancy can be gotten outside the hospital, Antenatal follow up is good to monitor mother's and foetus' health, Prefer going for antenatal care because all other pregnant women go too, Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center and Nature of care/ services during pregnancy is from family.

Out of 400 respondents, 368 (92%) of the respondents had a good attitudes towards ANC Services while 32 (8%) had a poor attitude towards ANC Services.

**4.4 PRACTICE OF PREGNANT WOMEN ON ANC SERVICES**

**TABLE 4.6: PRACTICE OF PREGNANT WOMEN ON ANC SERVICES**

S/N	VARIABLES	YES (%)	NO (%)	NO RESPONSE (%)	TOTAL (%)
1.	I have being attending antenatal care regularly based on the schedule given to me	365 (91.3)	18 (4.5)	17 (4.3)	400 (100.0)
2.	I am waiting for the foetus (baby) to move before going for antenatal care.	169 (42.3%)	212 (53)	19 (4.8)	400 (100.0)
3.	I am unable to meet the transport costs to the healthcare facility.	190 (47.5)	190 (47.5)	20 (5.0)	400 (100.0)
4.	I am feeling well and not having any serious problems, which need the nurse or doctor's attention	214 (53.5)	163 (40.8)	23 (5.8)	400 (100.0)
5.	No power to make decisions on your own. Husband/partner or family members have to make the decision for you to go for antenatal care	106 (26.5)	277 (69.3)	17 (4.3)	400 (100.0)

This study revealed that ,out of 400 respondents, 365 (91.3%) have being attending antenatal care regularly based on the schedule given to them, 18 (4.5%) have not being attending antenatal care regularly based on the schedule given to them, while 17 (4.3%) do not respond Out of 400 respondents, 169 (42.3%) reported that they are waiting for their foetus to move before going for antenatal care, 212 (53%) reported that they do not wait for their foetus to move before going for antenatal care while, 19 (4.8) do not respond. This study showed that out of 400 respondents, 190 (47.5%) were unable to meet the transport costs to the healthcare facility, 190 (47.5%) were able to meet the transport costs to the healthcare facility, while 20(5%) do not respond. Out of 400 respondents, 214 (53.5%) said they are feeling well and not having any serious problems, which need the nurse or doctor’s attention, 163 (40.8%) % said they are feeling well and not having any serious problems, yet they need the nurse or doctor’s attention while 23 (5.8%) do not respond. Out of 400 respondents, 106 (26.5%) reported No power to make decisions on your own. Husband/partner or family members have to make the decision for you to go for antenatal care, 277 (69.3%) reported that they have power to make decisions on your own. Husband/partner or family members have to make the decision for you to go for antenatal care while 17 (4.3%) do not respond.

**FIGURE 4.3: PRACTICE OF PREGNANT WOMEN ON ANC SERVICES**

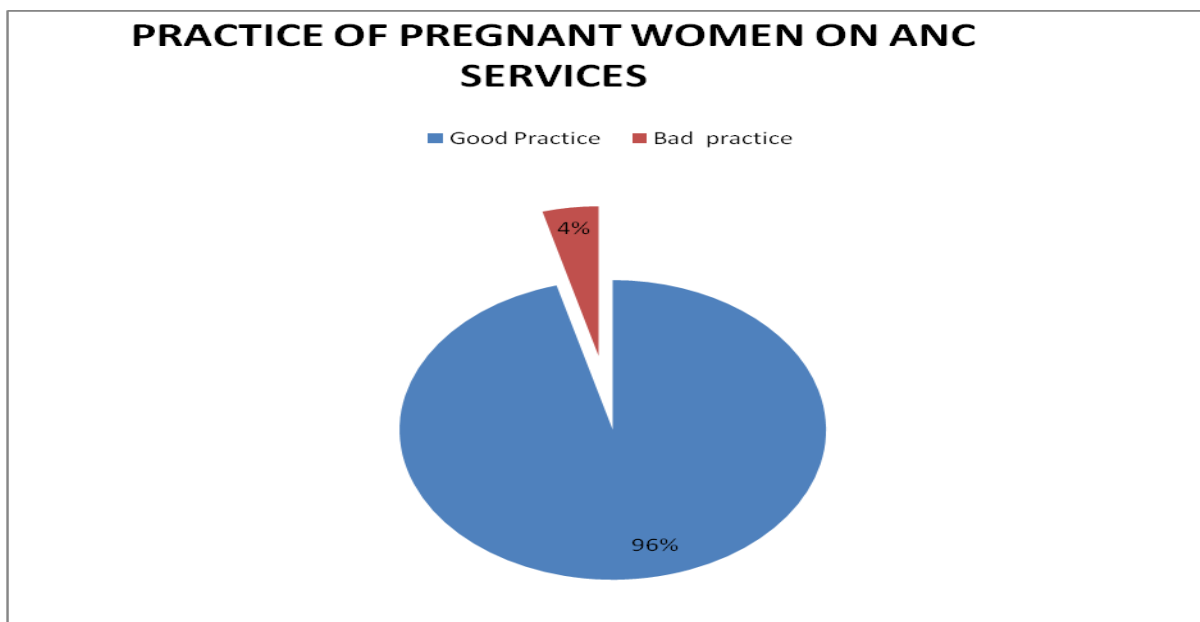


Figure above was derived from scoring the statements on practice of pregnant women on ANC services in the questionnaire. The statements include I have being attending antenatal care regularly based on the schedule given to me, I am waiting for the foetus (baby) to move before going for antenatal care, I am unable to meet the transport costs to the healthcare facility, I am feeling well and not having any serious problems, which need the nurse or doctor’s attention, and No power to make decisions on your own. Husband/partner or family members have to make the decision for you to go for antenatal care.

Out of 400 respondents, 383 (95.8%) had a good practice on the utilization of ANC services while 17 (4.3%) a bad practice on the utilization of ANC services.

**4.5 ATTITUDE OF HEALTH CARE WORKERS TOWARDS THE PREGNANT WOMEN**

**TABLE 4.7: ATTITUDE OF HEALTH CARE WORKERS TOWARDS THE PREGNANT WOMEN**

S/N	VARIABLES	YES (%)	NO (%)	I DON'T KNOW (%)	NO RESPONSE (%)	TOTAL (%)

1.	The health staff are courteous and respectful	368 (92.0)	16 (4.0)	8 (2.0)	8 (2.0)	400 (100.0)
2.	The health workers in this facility are extremely thorough and careful.	358 (89.5)	26 (6.5)	8 (2.0)	8 (2.0)	400 (100.0)
3.	You trust the skills and abilities of the health workers of this facility.	351 (87.8)	24 (6.0)	15 (3.8)	10 (2.5)	400 (100.0)
4.	I completely trust the health worker's decisions about medical treatments in this facility.	357 (89.3)	26 (6.5)	9 (2.3)	8 (2.0)	400 (100.0)
5.	The health workers in this facility are very friendly and approachable	355 (88.8)	23 (5.8)	14 (3.5)	8 (2.0)	400 (100.0)
6.	The health workers in this facility are easy to make contact with.	354 (88.5)	29 (7.3)	6 (1.5)	11 (2.8)	400 (100.0)
7.	The amount of time spent waiting to be seen by a health care provider was reasonable	324 (81.0)	48 (12.0)	20(5.0)	8 (2.0)	400 (100.0)
8.	I have enough privacy during my visit	311 (77.8)	75 (18.8)	6 (1.5)	8 (2.0)	400 (100.0)
9.	The hours the facility is open are adequate to meet my needs	357 (89.3)	14 (3.5)	21 (5.3)	8 (2.0)	400 (100.0)

From this study, it was find that out of 400 respondents, 368 (92%) reported that the health staff are courteous and respectful, 16 (4%) reported that the health staff are not courteous and respectful, 8 (2%) do not know if the health staff are courteous and respectful while 8 (2%) do not respond to the question. Out of 400 respondents, 358 (89.5%) reported that The health workers in their facility are extremely thorough and careful, 26 (6.5%) reported that The health workers in their facility are not extremely thorough and careful, 8 (2%) do not know if The health workers in this facility are extremely thorough and careful, 8 (2%) do not respond to the question. Out of 400 respondents, 351 (87.8%) reported that they trust the skills and abilities of the health workers of this facility, 24 (6%) do not trust the skills and abilities of the health workers of this facility, 15 (3.8) do not know if they trust the skills and abilities of the health workers of this facility, while 10 (2.5%) do not respond to the question. It was revealed that 357 (89.3%) reported that they completely trust the health worker's decisions about medical treatments in this facility, 26 (6.5%) do not completely trust the health worker's decisions about medical treatments in this facility, 9 (2.3%) do not know if they completely trust the health worker's decisions about medical treatments in this facility while 8 (2%) do not respond to the question. Out of 400 respondents, 355 (88.8%) reported that health workers in this facility are very friendly and approachable, 23 (5.8%) reported that health workers in this facility are not friendly and approachable, 14 (3.5%) do not know if health workers in this facility are very friendly and approachable while 8 (2%) do not respond to the question.

Out of 400 respondents, 354 (88.5%) reported that health workers in this facility are easy to make contact with, 29(7.3%) reported that health workers in this facility are difficult to make contact with, 6 (1.5%) do not know if health workers in this facility are easy to make contact with, while 11 (2.8%) do not respond to the question. Out of 400 respondents, 324 (81%) reported that The amount of time spent waiting to be seen by a health care provider was reasonable, 48 (12%) reported that The amount of time spent waiting to be seen by a health care provider was not reasonable, 20 (5%) do not know if The amount of time spent waiting to be seen by a health care provider was reasonable while 8 (2%) do not respond to the question. This study revealed that 311 (77.8%) of respondents reported that they have enough privacy during my visit, 75 (18.8%) reported that they do not have

enough privacy during my visit, 6 (1.5%) do not know if they have enough privacy during my visit while 8 (2%) do not respond to the question. Out of 400 respondents, 357 (89.3%) reported that The hours the facility is open are adequate to meet their needs, 14 (3.5%) reported that The hours the facility is open are not adequate to meet their needs, 21 (5.3%) do not know if reported that The hours the facility is open are adequate to meet their needs while 8 (2%) do not respond to the question.

FIGURE 4.4: ATTITUDE OF HEALTH WORKERS TOWARDS PREGNANT WOMEN

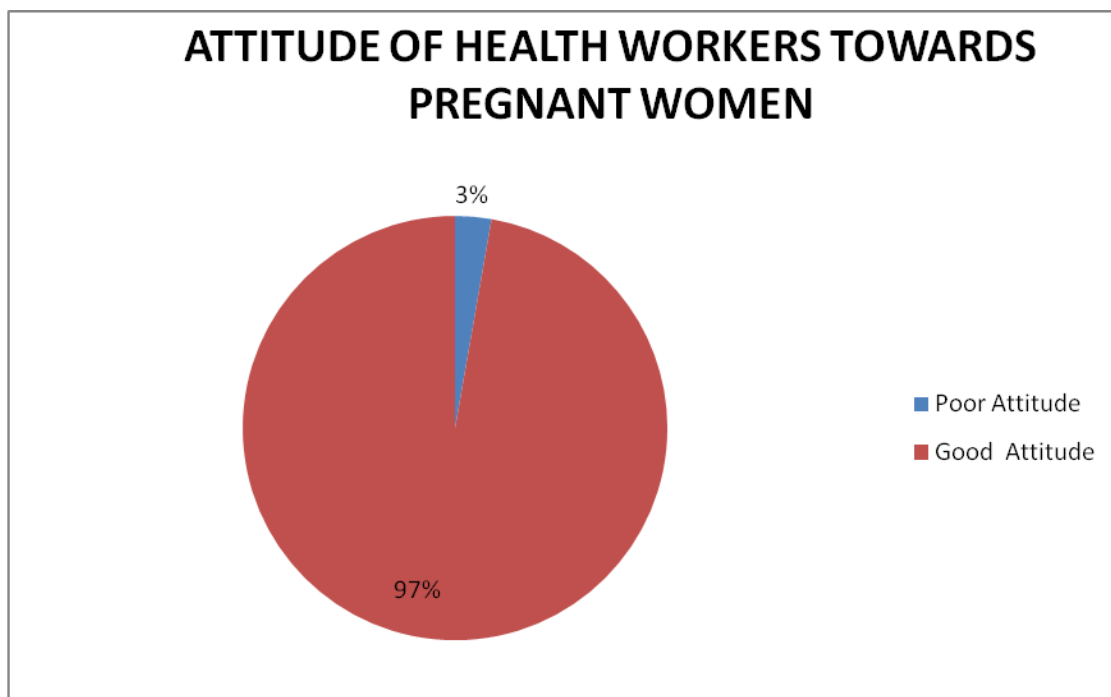


Figure above was derived from scoring the statements on attitude of health care workers towards pregnant women in the questionnaire. The statements include: The health staff are courteous and respectful, The health workers in this facility are extremely thorough and careful, You trust the skills and abilities of the health workers of this facility, I completely trust the health worker's decisions about medical treatments in this facility, The health workers in this facility are very friendly and approachable, The health workers in this facility are easy to make contact with, The amount of time spent waiting to be seen by a health care provider was reasonable, I have enough privacy during my visit and The hours the facility is open are adequate to meet my needs

Out of 400 respondents, 389 (97.3%) had a good attitude towards pregnant women while 11 (2.8%) a poor attitude towards the pregnant women during ANC services.

#### 4.6: FACTORS CONTRIBUTING TO UNDERUTILIZATION OF ANTENATAL CARE SERVICES BY THE PREGNANT WOMEN

##### 4.6.1 RELATIONSHIP BETWEEN SOCIODEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE OF PREGNANT WOMEN ON ANTENATAL CARE SERVICES

Table 4.8: RELATIONSHIP BETWEEN SOCIODEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE OF PREGNANT WOMEN ON ANTENATAL CARE SERVICES

Sociodemographic characteristics	VARIABLES	KNOWLEDGE			P-value	Df	X <sup>2</sup>
		GOOD (%)	BAD (%)	TOTAL (%)			
Age Range	No response	12 (3.0)	0 (0)	12 (3.0)	0.014	7	17.661
	15-19	8 (2.0)	0 (0)	8 (2.0)			
	20-24	41 (10.3)	0 (0)	41 (10.3)			

	25-29	98 (24.5)	6 (1.5)	104 (26.0)			
	30-34	102 (25.5%)	0 (0)	102 (25.5)			
	35-39	70 (17.5)	0 (0)	70 (17.5)			
	40-44	38 (9.5)	0 (0)	38 (9.5)			
	45-49	23 (5.8)	2 (0.5)	25 (6.3)			
	Total	392 (98)	8 (2.0)	400 (100)			
Educational status	No response	19 (4.8)	0 (0)	19 (4.8)	0.045	4	9.726
	No formal education	37 (9.3)	3 (0.8)	40 (10.0)			
	Primary	19 (4.8)	0 (0)	19 (4.8)			
	Secondary	123 (30.8)	0 (0)	123 (30.8)			
	Tertiary	194 (48.5)	5 (1.3)	199 (49.8)			
	Total	392 (98)	8 (2.0)	400 (100)			
Husband Educational status	No response	3 (0.8)	0 (0)	3 (0.8)	0.000	4	29.677
	No formal education	32 (8.0)	0 (0)	32 (8.0)			
	Primary	11 (2.8)	3 (0.8)	14 (3.5)			
	Secondary	98 (24.5)	0 (0)	98 (24.5)			
	Tertiary	248 (62.0)	5 (1.3)	253 (63.3)			
	Total	392 (98)	8 (2.0)	400 (100)			
Number of Children	No response	62 (15.5)	3 (0.8)	65 (16.3)	0.004	5	17.123
	1	84 (21.0)	0 (0)	84 (21.0)			
	2	111 (27.8)	0 (0)	111 (27.8)			
	3	65 (16.3)	5 (1.3)	70(17.5)			
	4	38 (9.5)	0 (0)	38 (9.5)			
	5	32 (8.0)	0 (0)	32 (8.0)			
	Total	392 (98)	8 (2.0)	400 (100)			
Residence	No response	34 (8.5)	0 (0)	34 (8.5)	0.044	2	6.229
	Rural	130 (32.5)	6 (1.5)	136 (34.0)			
	Urban	228 (57.0)	2 (0.5)	230 (57.5)			
	Total	392 (98)	8 (2.0)	400 (100)			
Types of family setting	No response	8 (2.0)	6 (1.5)	14 (3.5)	0.000	4	123.84
	Nuclear	259 (64.8)	2 (0.5)	261 (65.3)			
	Extended	69 (17.3)	0 (0)	69 (17.3)			
	Monogamous	34 (8.5)	0 (0)	34 (8.5)			
	Polygamous	22 (5.5)	0 (0)	22 (5.5)			
	Total	392 (98)	8 (2.0)	400 (100)			
Distance of health facility	No response	5 (1.3)	6 (1.5)	11 (2.8)	0.000	3	160.619
	<1km	125 (31.3)	0 (0)	125 (31.3)			
	1-2 km	151 (37.8)	0 (0)	151 (37.8)			
	3-5 km	111 (27.8)	2 (0.5)	113 (28.3)			
	Total	392 (98)	8 (2.0)	400 (100)			

Table 4.8 above shows the relationship between socio-demographic characteristics and knowledge of pregnant women on antenatal care services. socio-demographic characteristics compared include age range, educational status, husband educational status, number of children,

residence, types of family setting, distance of health facility. The Chi-Square testing was used to find the relationship between the socio-demographic characteristics and knowledge of pregnant women on antenatal care services.

The result of the cross tabulations shows Age range (P-value =0.014, df=7, X<sup>2</sup> = 17.661) educational status (P-value =0.045, df=4, X<sup>2</sup> = 9.726), husband educational status (P-value =0.000, df=4, X<sup>2</sup> = 29.677), number of children (P-value =0.004, df=5, X<sup>2</sup> = 17.123), residence (P-value =0.044, df=2, X<sup>2</sup> = 6.229), types of family setting (P-value =0.000, df=4, X<sup>2</sup> = 123.814) and distance of health facility (P-value =0.000, df=3, X<sup>2</sup> = 160.619).

### 1.6.2 RELATIONSHIP BETWEEN ATTITUDE OF PREGNANT WOMEN TOWARDS ANC SERVICES AND KNOWLEDGE OF PREGNANT WOMEN ON ANTENATAL CARE SERVICES

Table 4.9: RELATIONSHIP BETWEEN ATTITUDE OF PREGNANT WOMEN TOWARDS ANC SERVICES AND KNOWLEDGE OF PREGNANT WOMEN ON ANTENATAL CARE SERVICES

	Good attitude	Poor attitude	P-value	Df	X <sup>2</sup>
Good knowledge	361 (90.3)	31 (7.8)	0.686	1	0.521
Poor knowledge	8 (2.0)	0 (0)			

### 1.6.3 RELATIONSHIP BETWEEN PRACTICE OF PREGNANT WOMEN TOWARDS ANC SERVICES AND KNOWLEDGE OF PREGNANT WOMEN ON ANTENATAL CARE SERVICES

Table 4.10 RELATIONSHIP BETWEEN PRACTICE OF PREGNANT WOMEN TOWARDS ANC SERVICES AND KNOWLEDGE OF PREGNANT WOMEN ON ANTENATAL CARE SERVICES

	Good practice	Poor practice	P-value	df	X <sup>2</sup>
Good knowledge	375 (93.8)	17 (4.3)	0.362	1	0.704
Poor knowledge	8 (2.0)	0 (0)			

Table 4.9 above shows the relationship between attitude of pregnant women towards ANC services and knowledge of pregnant women on antenatal care services. The Chi-Square testing was used to find the relationship between the attitude of pregnant women towards ANC services and knowledge of pregnant women on antenatal care services. The result of the cross tabulations shows (P-value =0.686, df=1, X<sup>2</sup> = 0.521)

Table 4.10 above shows the relationship between practice of pregnant women towards ANC services and knowledge of pregnant women on antenatal care services. The Chi-Square testing was used to find the relationship between the practice of pregnant women towards ANC services and knowledge of pregnant women on antenatal care services. The result of the cross tabulations shows (P-value =0.362, df=1, X<sup>2</sup> = 0.704)

## Discussion, Conclusion and Recommendations

### Discussion

This study was a cross sectional study designed, participant selection was done using multi stage sampling method among women who came for Antenatal Care in Ede South LGA. Leslie KIESH formula was used to calculate the sample size with prevalence of 49%. 422 questionnaire forms were administered but only 400 was retrieved and analyzed.



### **Sociodemographic characteristics**

This study found that the biggest age range was 25–29 years, with 26%, and that this age range decreased as people aged. Ogunba and Abiodun (2017) found that the highest age range for respondents was 26–30 years, with 40.8%, and that this age range likewise decreased as people aged. In this study, the majority of respondents (94%) were married, which is the same as the study conducted by Ogunba and Abiodun in 2017, in which 85.2% of the respondents were married. In our study, 65.6% of the respondents identified as Christians, which is consistent with Ogunba and Abiodun's 2017 estimate of 67.6% of the respondents as Christians.

In this study, 49.8% of the respondents had a tertiary education, which is similar to the study of Ogunba and Abiodun (2017), which indicates that 65.2% of respondents had a tertiary education. Our study found that 31.5% of respondents were traders, 22% were civil servants, and 18% were artisans. This is in contrast to a 2017 survey by Ogunba and Abiodun, which found that 32.4% of respondents were civil servants and 37.6% were businesswomen. Our study reports that 63.3% of the respondents husband's to have a tertiary education which is contrasting the study carried out by Adewuyi et al;2018, that reported 41.7% of their husband to have education higher than secondary education. Ogunba and Abiodun;2017,reported 74.8% of the respondents to be Yoruba which aligns to our study that reports 82.8% to be Yoruba. According to our study, most (57%) of our respondents earn <#50000 monthly and 4.5% earn > #151000. This is contrary to Ogunba and Abiodun;2017, study that reports 20% of the respondents to earn in average of 71-105 USD. And 30% earn above 176 USD. According to our study, 57.5% of the respondents resides in urban area. This is contrary to the study by Adewuyi et al; 2018, which reports 35.1% to reside in urban area. according to Ali et al; 2020, it was reported that 37.8% of the respondents had a nuclear family which was contrary to our study that reported 65.3% to have a nuclear family. According to Ogunba and Abiodun;2017,67.6% had more than a child, which is similar to this study that reports 62.8% to have more than one child.

### **Knowledge of Pregnant Women On ANC Services**

In accordance with this study, 90% of respondents agreed that pregnant women must go for an antenatal checkup, while 8.5% disagreed. This is a tad higher than the poll conducted by Akhtar in 2018, which found that 69.1% of respondents agreed that pregnant women should get a prenatal checkup while 28.7% said they shouldn't. According to the previous research conducted by ogunba and Abiodun; 2017,it was reported that 87.2% of the respondents agrees that Attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications. This is in accordance to this study that reported 96% to agree that Attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications. This study reveals that 94% of the respondents reported that Antenatal care clinic can prevent newborn deformity, which is similar to the study carried out by Ogunba and Abiodun;2017, which reported that 76.4% responded that Antenatal care clinic can prevent newborn deformity. In this study, over 90% of the respondents responded that Antenatal care clinic can correct or improve the nutrients deficiency. This is supported by the study carried out by ogunba and Abiodun;2017, which reported that 84% responded that Antenatal care clinic can correct or improve the nutrients deficiency. This study reported that 62% agrees that adequate antenatal care clinic visits should not be more than four visit or less. This is contrary to the reports of Ogunba and Abiodun;2017 that reports only 32.8% to agree that Adequate antenatal care clinic visits should not be more than four visits or less. Ogunba and Abiodun;2017, reported that 79.2% of the respondents agrees that Pregnant women need to take extra food as compared with non-pregnant women. This supports our study that reported 83.3% to agree that Pregnant women need to take extra food as compared with non-pregnant women. This study reported that 66% agrees that Regular and strenuous exercise is

dangerous and may be unsafe for the health of the foetus, which is similar to the study by Ogunba and Abiodun;2017, which reported that 54.8% of the respondents agreeing that Regular and strenuous exercise is dangerous and may be unsafe for the health of the foetus.

According to research conducted by Ogunba and Abiodun in 2017, 80.8% of the respondents concur that a diet rich in nutrients is essential for a healthy pregnancy and birth. This study found that 90.5% of respondents also concur that a diet rich in nutrients is essential for a healthy pregnancy. According to Akhtar, 2018, 51.1% of the respondents reported that tetanus toxoid injection is very necessary. This is lower compared to this study that reported 93.5% of the respondents agreeing that tetanus toxoid injection is very necessary.

This study revealed that 93% of the respondents responded that pregnant women needs vitamin supplement, iron and folic acid tablet which is similar to the study carried out by Akhtar;2018, which reported that 88.7% of the respondents responded that pregnant women needs vitamin supplement, iron and folic acid tablet. Akhtar;2018,reported that 82.4% of the respondent in his study agrees that Regular Blood pressure examination is necessary during pregnancy. This corroborates with our study that reported that 91.8% of the respondents agreeing that Regular Blood pressure examination is necessary during pregnancy. This study reveals that 90.5% of the respondents reported that high blood pressure can affect the foetus growth. This contradicts the study carried out by Akhtar;2018, which reported that 51.5% agreeing that high blood pressure can affect the growth of the foetus while 46.3% responded that high blood pressure cannot affect the growth of the foetus. In this study, 62.5% of the respondents reported that the appropriate time to start antenatal care check up is the 1<sup>st</sup> trimester, 24.5% reported 2<sup>nd</sup> trimester while 10% reported 3<sup>rd</sup> trimester. This correspond to the study by Ogunba and Abiodun; 2017, which reported that 65.6% agrees that the best time to start antenatal care check-up is 1<sup>st</sup> trimester, 26% reported 2<sup>nd</sup> trimester while 0% reported 3<sup>rd</sup> trimester.

#### **Attitude of Pregnant Women towards ANC Services**

According to this study, 16% of respondents highly believe that early prenatal booking is good for my pregnancy, while 2% disagree. Among those who strongly agree, 76.5% agree that it is. This is consistent with a study done in 2018 by Akhtar, which found that 91.5% of respondents agreed that early prenatal booking was beneficial for their pregnancies and 5.9% disagreed. According to Ogunba and Abiodun;2017, 7.2% strongly agree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session, 31.2% agree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session while 16% disagree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session. This is contrary to this study which reported that 38.5% strongly agree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session, 11.3% agree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session while 20.5% strongly disagree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session and 25% disagree that Limit the frequency of my visit to antenatal care clinic because of the cost of each session. In this study, 29.5% strongly Dislike attending antenatal care clinic because it's boring, 9% Dislike attending antenatal care clinic because it's boring while 40.5% strongly disagree that they Dislike attending antenatal care clinic because it's boring and 18% disagree that they Dislike attending antenatal care clinic because it's boring. This is similar to study carried out by Ogunba and Abiodun; 2017, that reported 4.4% to strongly Dislike attending antenatal care clinic because it's boring, 17.6% Dislike attending antenatal care clinic because it's boring and 42% disagree that they Dislike attending antenatal care clinic because it's boring. 31% strongly Dislike antenatal care clinic because it is time consuming, 8.8% Dislike antenatal care clinic because it is time consuming while 25% disagree that they Dislike antenatal care clinic because it is time consuming and 31.5% strongly disagree that they Dislike antenatal care clinic because it is time consuming. This is contrary to the

study carried out by Ogunba and Abiodun;2017, which reported that 27.4% Dislike antenatal care clinic because it is time consuming and 36.4% to disagree that they Dislike antenatal care clinic because it is time consuming. According to Ogunba and Abiodun;2017, 8.4% strongly agree that they Attend antenatal care sessions because its counsels are about the women's health alone, 19.2% agree that they Attend antenatal care sessions because its counsels are about the women's health alone, while 35.6% disagree that they Attend antenatal care sessions because its counsels are about the women's health alone. This is contrary to this study that reported that 38% to strongly agree that Attend antenatal care sessions because its counsels are about the women's health alone, 26.5% to agree that Attend antenatal care sessions because its counsels are about the women's health alone, while 24.8% disagree that they Attend antenatal care sessions because its counsels are about the women's health alone and 7.5% strongly disagree that they Attend antenatal care sessions because its counsels are about the women's health alone. Ogunba and Abiodun;2017, reported that 12.4% strongly agree that Advice regarding proper health during pregnancy can be gotten outside the hospital, 45.2% agree that Advice regarding proper health during pregnancy can be gotten outside the hospital, while 17.2% disagree that Advice regarding proper health during pregnancy can be gotten outside the hospital. This compliments our study that reported 35.5% to strongly agree that Advice regarding proper health during pregnancy can be gotten outside the hospital, 19% agree that Advice regarding proper health during pregnancy can be gotten outside the hospital, while 16.3% strongly disagree that Advice regarding proper health during pregnancy can be gotten outside the hospital and 1.5% disagree that Advice regarding proper health during pregnancy can be gotten outside the hospital. According to our study, 30% of the respondents strongly agree that they Prefer going for antenatal care because all other pregnant women go too, 27% agree that they Prefer going for antenatal care because all other pregnant women go too, 3.8% strongly disagree that they Prefer going for antenatal care because all other pregnant women go too while 1.5% disagree that they Prefer going for antenatal care because all other pregnant women go too. This is contrary to the study carried out by Ogunba and Abiodun;2017 which reported 6.8% strongly agree that they Prefer going for antenatal care because all other pregnant women go too, 18.4% agree that they Prefer going for antenatal care because all other pregnant women go too, while 36.8% disagree that they Prefer going for antenatal care because all other pregnant women go too. According to Ogunba and Abiodun; 2017, 4.8% of the respondents strongly agree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, 18% agree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, while 38% disagree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center. This is similar to our study which reported that 11.3% strongly agree that Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, 12.3% agree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center, while 33% strongly disagree that they Prefer reading my advice online because of the cost of transportation to the nearest antenatal care center.

### **Practice of pregnant women on ANC services**

This study reveals that 42.3% of the respondents awaits the movement of the foetus (baby) before going for antenatal care. This is contrary to the study carried out by Akhtar;2018, which reported that 81.6% of the respondents do not wait for the movement of the baby before going for antenatal care while 11% awaits the movement of the foetus (baby) before going for antenatal care. In this study, it was revealed that 47.5% of the respondents were unable to meet the transport cost to the health care facility which is contrary to the study carried out by Akhtar that reported 14.7% of the respondents not to be able to meet the transport cost to the health care.

According to Akhtar;2018, 93.4% of the respondents reported that they are feeling well and not having any serious problems which need the nurse or doctor's attention. This is higher than our study which reveals that 53.5% report that they are feeling well and not having any serious problems which need the nurse or doctor's attention.

According to Akhtar; 2018, 50% reported that they have No power to make decisions on your own. Husband/partner or family members have to make the decision for you to go for antenatal care, which is contrary to our study where 69.3% reported that they have power to make decisions on your own.

### **Attitude of Health Care Workers towards the Pregnant Women**

According to this study, health care workers have a good attitude such as being courteous and respectful (92%), extremely thorough and careful (89.5%), friendly and approachable (88.8%), having enough privacy with the patients (77.8%) towards pregnant women. Also, respondents so much trust the skills and abilities of health workers (87.8%), trust the health workers decisions about medical treatment (89.3%). Also, respondents reported time spent waiting to meet health care workers was reasonable. This is contrary to the study carried out by Mannava et al;2015 which reported that; less respectful treatment of women, verbal abuse, shouting at and scolding of women at childbirth which later affect patient emotional wellbeing and access to quality care and satisfaction.

### **Factors contributing to underutilization of antenatal care services by the pregnant women**

#### **Relationship between socio-demographic characteristics and knowledge of pregnant women on antenatal care services:**

This study reveals that Age range (0.014) educational status (0.045), husband educational status (0.000), number of children (0.004), residence (0.044), types of family setting (0.000) and distance of health facility (0.000) affect the knowledge of respondents towards antenatal care services when the p-value was set at <0.05.

**Relationship between attitude of pregnant women towards ANC services and knowledge of pregnant women on antenatal care services:** this study shows that there is no relationship between knowledge of pregnant women and attitude of pregnant women on antenatal care service. Therefore, the knowledge of respondents is not a factor influencing the use of Antenatal Care Services.

### **Conclusion and Recommendations**

We can infer from this study that pregnant women effectively use antenatal care services, and that health care professionals adopt a very good strategy through community campaigns and mass media like local television channels, radio stations, and local newspapers, information, education, and communication activities on ANC should be increased from the national level down to the grassroots, with an emphasis on the number of antenatal care visits that should be made before the child is born, which will be at least greater than 4 different visits. There is a need to motivate women to utilize maternal care services which are freely available in all the government health setups so as to detect and prevent any potential problems that would reduce the level of child morbidity and mortality

### **References**

1. Assegid M, Balew AG, Berhan Y, Davey B, Fesseha N, Gebrehiwot Y, Hailemariam M, Tadesse E (2017). Providing focused antenatal care, Antenatal Care module 13, Part 2,

- The HEAT Team, HEAT Programme, The Open University. Available at <http://www.open.edu/openlearncreate/mod/oucontent/view.php?id=44&printable=1>
2. C. I. F. Rooney, Antenatal Care and Maternal Health: How Effective Is It? Document WHO/MSM/92A, World Health Organization, Geneva, Switzerland, 1992.
  3. Carroli G, Villar J, Piaggio G, Khan-Neelofur D, Gülmezoglu M, Mugford M, Lumbiganon P, Farnot U, Bergsjø P (2001). WHO systematic review of randomised controlled trials of routine antenatal care. *Lancet* 357(9268):1565-1570. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/11377643>
  4. Chalmers B, Mangiaterra V, Porter R. WHO principles of perinatal care: the essential 1. antenatal, perinatal, and postpartum care course. *Birth*, 2001; 28: 202–207.
  5. Dahiru T, Oche OM. Determinants of antenatal care, institutional delivery and postnatal care services utilization in Nigeria. *Pan African Medical Journal*. 2015; 22(1).
  6. Di Mario S et al. What is the effectiveness of antenatal care? .2005. (Supplement) Copenhagen, WHO Regional Office for Europe (Health Evidence Network report; <http://www.euro.who.int/Document/E87997.pdf>, accessed 28 December 2013).
  7. R. Merkatz, J. E. Tharpson, and L. V. Walsh, “History of prenatal care,” in *New Perspectives on Prenatal Care*, I. R. Merkatz and J. E. Tharpson, Eds., pp. 9–30, Elsevier, New York, NY, USA, 1990
  8. Igbokwe C (2012) Knowledge and attitude of pregnant women towards antenatal services in Nsukka Local Government Area of Enugu State, Nigeria. *Journal of Research in Education and Society* 3(1).
  9. Kearns A, Hurst T, Caglia J, Langer A (2014). Focused antenatal care in Tanzania: Delivering individualized, targeted, high-quality care. Country level Programme. Women and Health Initiative, Maternal Health Task Force. Available at: <http://www.mhtf.org/wpcontent/uploads/sites/32/2014/09/HSPH-Tanzania5.pdf>
  10. Khan KS, Wojdyla D, Say L, et al. WHO analysis of causes of maternal death: a systematic review. *Lancet*. 2006;367(9516):1066–74.
  11. Majrooh MA, Hasnain S, Akram J, Siddiqui A, Memon ZA (2014) Coverage and quality of antenatal care provided at primary health care facilities in the ‘Punjab’ province of ‘Pakistan’. *Plos one* 9(11): e113390.
  12. Menendez C, D’Alessandro U, ter Kuile FO. Reducing the burden of malaria in pregnancy by preventive strategies. *Lancet Infectious Diseases*. 2007; 7(2):126–35. Epub 2007/01/26. [https://doi.org/10.1016/S1473-3099\(07\)70024-5](https://doi.org/10.1016/S1473-3099(07)70024-5) PMID: 17251083.
  13. National Collaborating Centre for Women’s Children’s Health. Antenatal care: Routine Care for the Healthy Pregnant Woman. London, UK: RCOG Press. 2008.
  14. National Collaborating Centre for Women’s Children’s Health. Antenatal care: Routine Care for the Healthy Pregnant Woman. London, UK: RCOG Press. 2008.
  15. National Population Commission (NPC) [Nigeria] and ICF International. Nigeria Demographic and Health Survey 2013. Abuja, Nigeria and Rockville, Maryland, USA: NPC and ICF International. 2014.
  16. Organization WH (2016) Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach: World Health Organization.
  17. Reynolds HW, Wong EL, Tucker H(2006) Adolescents' use of maternal and child health services in developing countries. *International family planning perspectives* 6-16.
  18. Shahnaz Akhtar, Muhammad Hussain , Iram Majeed , Muhammad Afzal (2019), Knowledge Attitude and Practice Regarding Antenatal Care among Pregnant Women in

- Rural Area of Lahore. International Journal of social sciences and management. DOI: 10.3126/ijssm.v5i3.20604
19. UNICEF. Committing to Child Survival: A Promise Renewed, Progress Report 2014. 2014. New York, USA: UNICEF. 2015
  20. United States Agency for International Development (USAID) (2007). Focused antenatal care: Providing integrated, individualized care during pregnancy. Access Program. Available at: <https://cdn2.sph.harvard.edu/wp-content/uploads/sites/32/.../HSPHTanzania5.pdf>
  21. Villar J, Ba'aqeel H, Piaggio G, Lumbiganon P, Miguel Belizan J, Farnot U, et al. WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care. *Lancet*. 2001; 357 (9268):1551–64. Epub 2001/05/30. PMID: 11377642.
  22. Villar J, Ba'aqeel H, Piaggio G, Lumbiganon P, Miguel Belizan J, Farnot U, et al. WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care. *Lancet*. 2001; 357 (9268):1551–64. Epub 2001/05/30. PMID: 11377642
  23. World Health Organization (1994). Mother-Baby Package: Implementing safe motherhood in countries. Practical Guide. Maternal Health and Safe Motherhood Programme. Available at: [http://www.who.int/maternal\\_child\\_adolescent/documents/who\\_dhe\\_msm\\_9411/en/](http://www.who.int/maternal_child_adolescent/documents/who_dhe_msm_9411/en/)
  24. World Health Organization (2002). Antenatal Care Randomized Trial: Manual for the Implementation of the New Model. Geneva. <http://apps.who.int/iris/handle/10665/42513>
  25. World Health Organization (2006). Antenatal care coverage. <http://www.who.int/whosis/whostat2006AntenatalCareCoverage.pdf>
  26. World Health Organization. (WHO) (2016)WHO Guideline on Antenatal Care
  27. World Health Organization. The World Health Report 2005: Make every mother and child count. Geneva: WHO. 2005.