

# Knowledge, Attitude And Practice Of Antenatal Care Among Pregnant Women Of Angu Wan Rogo Sokoto State, Nigeria

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## Abstract

**Background:** Antenatal care is a medical and general care that is provided to pregnant women during pregnancy. In Nigeria as well as in the world maternal mortality is high. The aim of this study is to access the level of knowledge, attitude and practice toward antenatal care service among women of Unguwar Rogo Sokoto.

**Materials and Method:** The study design was cross sectional descriptive design and study population among married women of reproductive age group of Unguwar Rogo area Sokoto. A total of 250 women were selected based on systematic random sampling technique after estimating number of women (650). Interviewed administered questionnaire was the instrument used and data collected was entered into SPSS version 20 and analysed using frequency, percentage, mean, standard deviation and chi-square

**Result:** Majority 232 (92.8%) of women knew about antenatal care and the rest 18 (7.2%) did not know about antenatal care. About ( 94%) of the respondents wanted to follow antenatal care while (6.0% ) women do not want to follow antenatal care if they get pregnant due to negative attitude. Home delivery was found to be 42.5%. Also, about 94% of women practiced antenatal care follow up during their pregnancy time. The chi-square of mother knowledge and mother practice  $X^2 = 160.462^2$  and  $p\text{-value} = 0.000$  show that there is statistically significant association between mother knowledge and practice of ANC.

## Conclusion and Recommendation:

Both knowledge and practice of antenatal care service were found to be good among the study respondent but hospital delivery is low. The study further recommend the need to educate both women and husband to know the important of hospital delivery.

**Keywords:** Knowledge, attitude, practice, antenatal care, Unguwar Rogo, Sokoto State.

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## Introduction

### Background Information

Antenatal care is a medical and general care that is provided to pregnant women during pregnancy. It is goal oriented provided with the aim of meeting both psychological and medical needs of pregnant women within the context of health care delivery system, culture and religion in which the women live. It is based on local situation and addresses risk assessment, health promotion and care provision. It has been found to be effective in the treatment of anemia, hypertension and sexually transmitted diseases<sup>1</sup>. Pregnancy and child birth is a natural process which in most cases comes to good end even without any intervention; however in a relatively high proportion of pregnancies there are complications. Some of which are very serious and of a life threatening nature. Some of these complications may be anticipated, because risk factors are present<sup>2</sup>

### Objectives of the study

To Assess the knowledge of the study subject about the causes of maternal mortality.

To Assess the attitude of study subjects about ANC

Determine the practice of the study subject about prevention of maternal mortality by ANC services.

### Material And Method

**Study Area:** This study was carried out in Sokoto, Sokoto state, in North western Nigeria. A total of 250 ( Two hundred and Fifty ) participants were enrolled into the study.

**Study Design:** A descriptive cross-sectional survey

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**Study Population:** Married Women of Unguwar Rogo Area, Sokoto South Sokoto.

**Sampling Method:** Three hundred houses were selected by simple random sampling using ballot option, proportionate allocation was used in determining the number of study subject to be selected from each house. Selection of eligible study subject in the selected houses was done by simple random sampling using the ballot option.

**Inclusion Criteria:** Only married women of Unguwar Rogo area

**Exclusion Criteria:** Those who had never been pregnant.

**Instrument of Data Collection:** A set of pre-tested, standardized semi-structured questionnaire with an observation checklist (attached) was used for data collection. (Containing both open and closed ended questions) (Appendix I)

**Method of Data Collection:** The designed questionnaire with the observation checklist was used in data collection

**Data Analysis:** Data collation and sorting were done manually. Computer data processing was done using the SPSS version 20 computer statistical software package. Frequency runs were done for further editing and cleansing of the e-data. Frequency distribution tables were constructed; and cross tabulations were done to examine relationship between categorical variables. The Chi-square test was used to compare differences between proportions. Other bivariate or multivariate analyses were done accordingly. All statistical analysis were set at 5% level of significance,  $p=0.05$  (i.e. 95% confidence)

**Ethical Consideration:** Ethical approval (Appendix II) was obtained from the Sokoto State Ministry of Health, Sokoto. Informed written consent (Appendix III) was also obtained from study responded before the administration of the questionnaire.

**Limitations**

- i. Inability to include resident pregnant women who were absent during the study.
- ii. In ability to include resident women whose husband refused consent.

**Results**

**Table 1**

A total of 250 married women in the reproductive age were successfully interviewed, giving response rate of 100%. The majority of the respondent 110(44%) were in age group of 26 – 35years, followed by 75 (30%) 15 – 25years with mean age of 25.5years. Most were Muslims 234 (93.6%). The predominant ethnic group in this study area were Hausa Fulani 208 (83.2%) followed by Yoruba 19(7.6%), then Igbo 16 (6.4%). Regarding educational background 114 (45.6%) attended Islamic school 49(19.6%) were SSCE holders and 84 (33.6%) are Diploma/Degree respectively. Majority of the respondents are housewife 178(71%), 38 (15.2%) are employed and 34 (13.6%) are petty traders. Majority of mothers 146(58.4%) had 1 – 3 numbers of children and 104 (41.6%) had greater than 3 No. of children.

**TABLE 1: Socio Demographic characteristic of respondent**

Variable	Frequency (%) = 250
<b>Age (yrs)</b>	
15 – 25	75 (30%)
26 – 35	110 (44%)
> 36	65 (26%)
Mean	25.5
<b>Religion</b>	
Islam	234 (93.6%)
Christianity	14 (5.6%)
Missing	2 (0.8%)
<b>Tribe</b>	
Hausa / Fulani	208 (83.2%)
Yoruba	19 (7.6%)
Igbo	16 (6.4%)
Others	2 (0.8%)
Missing	5
<b>Education Status</b>	
Islamic School	114 (45.6%)
SSCE	49 (19.6%)

Diploma / Degree	84 (33.6%)
<b>Occupation</b>	
Housewife	178 (71.2%)
Petty Trader	34 (13.6%)
Employed	38 (15.2%)
<b>No. of Children</b>	
1 – 3	146 (58.4%)
> 4	104 (41.6%)

Table 2 result showed pregnant women knowledge about ANC. Majority of mothers 232 (92.8%) ever had about ANC service. Majority 201 (80.4%) said ANC service should be given at health institution. Among the respondents who ever heard about ANC service 193 (77.2%) reported that the mother should get ANC service 4 times and above during the pregnancy.

**Table 2:** Pregnant mother knowledge about ante natal care service

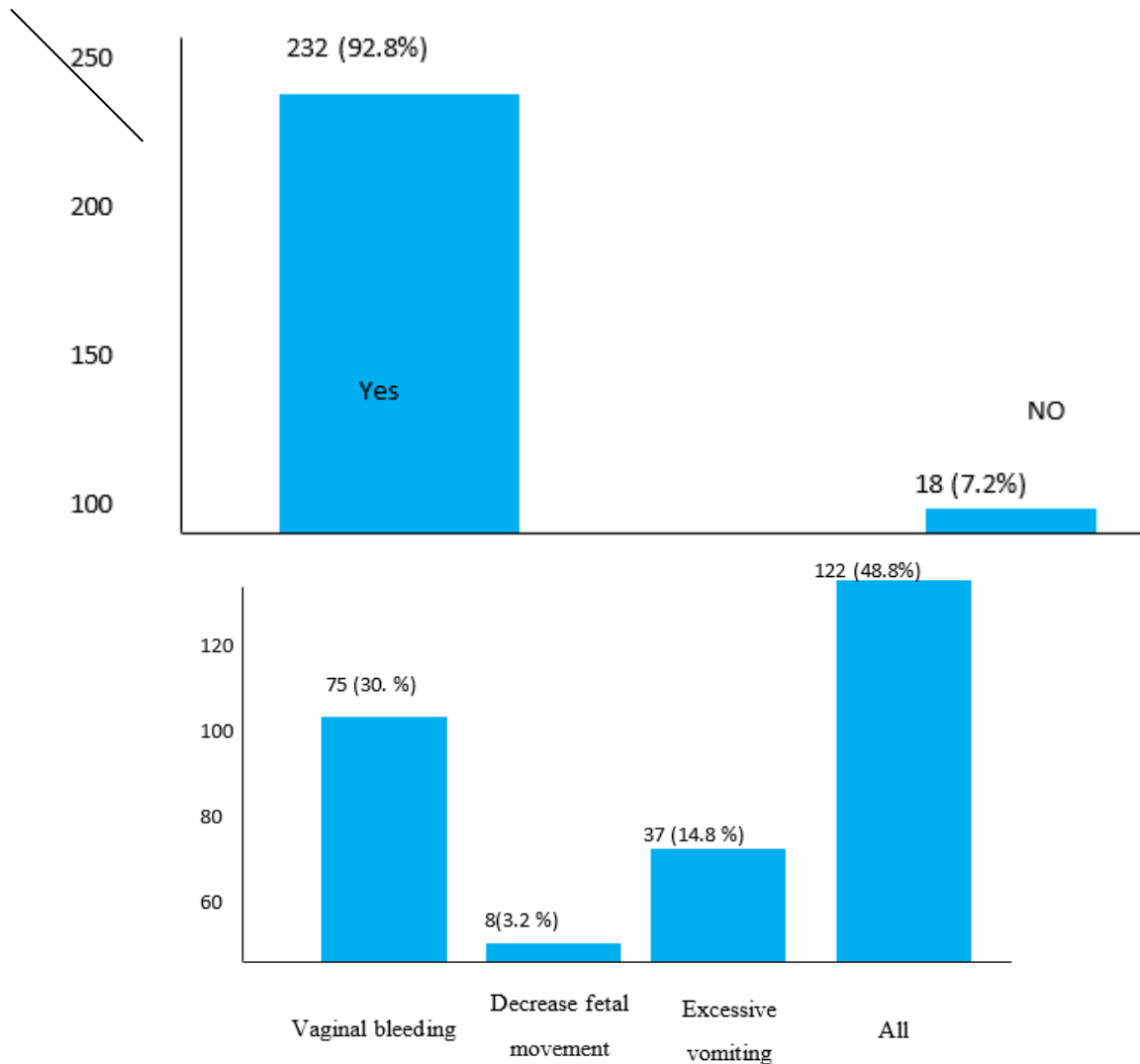
Variable	Frequency (%) = 250
<b>Mother Knowledge on ANC</b>	
Yes	232 (92.8)
No	18 (7.2)
<b>Where is the Service given</b>	
Health Institution	201 (80.4)
Private Clinic	25 (10)
Traditional Attendant	24 (9.6)
<b>No. of Visit</b>	
Twice	3 (1.2)
Three	37 (14.8)
Four & above	193 (77.2)
Missing	13 (5.2)

The result of table 3 on women knowledge of danger signs of pregnancy showed 235 (94%) of women who had about ANC service knew the danger sign of pregnancy. Among these, minority 8 (3.2%) listed Decrease fetal movement, 37 (14.8%) excessive vomiting, 75 (30%) vaginal bleeding and majority 122 (48%) said all the aforementioned as danger sign of pregnancy.

**Table 3:** Pregnant mother knowledge about danger signs of pregnancy

Variable	Frequency (%) = 250
<b>Do you know Danger sign of pregnancy</b>	
Yes	235 (94.0)
No	9 (3.6)
Missing	6 (2.4)
<b>What are the Danger sign of pregnancy</b>	
Vaginal bleeding	75 (30)
Decrease fetal movement	8 (3.2)
Excessive vomiting	37 (14.8)
All of the above	122 (48.8)
Missing system	8 (3.2)

**Fig: 1** Mother Knowledge About Danger Signs Of Pregnancy



**Fig 2: Danger Sign Of Pregnancy**

The result of table 4 shows mother reason of not knowing about ANC which shows unavailability of media 9 (3.6%), (50%) lack of information from health workers 9 (3.6%) (50%).

**Table 4: Pregnant knowledge about ante natal care service**

Variable	Frequency (%) = 250
<b>Why did you not know about ANC Service.</b>	
Unavailability of Media	9 (3.6)
Lack of Information from health worker	9 (3.6)
Lack of time to get information	0

Table 5 shows mothers knowledge of the impact of not following ANC of which 232 (92.8%) knew about impact of not following ANC service. Among these, majority 85 (34.0%) listed maternal morbidity and mortality, followed by 68 (27.2%) fetal morbidity, 33 (13.2%) abortion, and 39 (15.6%) listed all as impact of not following ANC.

**Table 5: Pregnant knowledge about ante natal care service**

Variable	Frequency (%) = 250
<b>Do you know the health impact of not following ANC Service?</b>	
Yes	232 (92.8)
No	18 (7.2)
<b>What are the health impact?</b>	
Maternal morbidity and mortality	85 (34.0)
Abortion	33 (13.2)
Fetal morbidity	68 (27.2)
All	39 (15.6)

Missing system	25 (10)
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Fig 3: Health impact of not following ANC

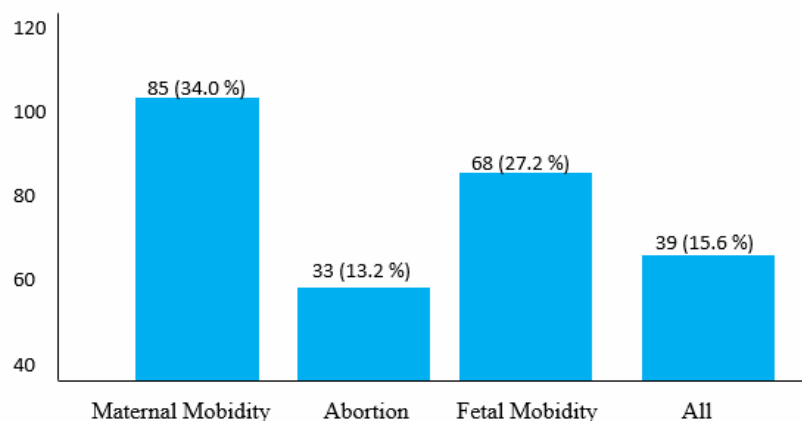


Fig 4: When should woman get ANC Service and mortality

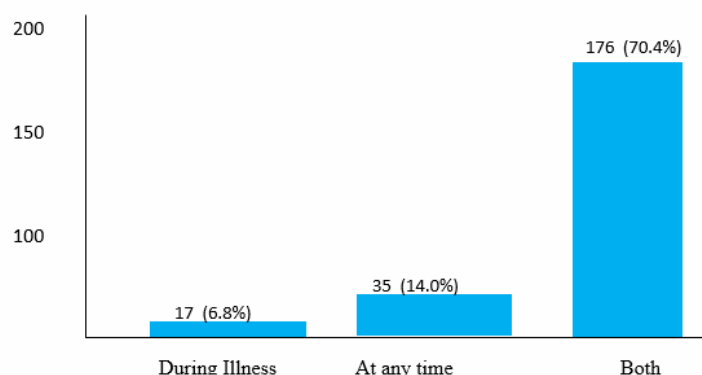


Table 6 shows that Majority 232 (92.8%) knew when a pregnant mother should get ANC service. 176 (70.4%) said during illness or at any time, some said at any time 35 (14%) and some said during illness 17 (6.8%).

Table 6: knowledge of when pregnant women should access ANC

Variable	Frequency (%) = 250
<b>Do you know when pregnant women should get ANC service?</b>	
Yes	232 (92.8)
No	18 (7.2)
<b>When should woman get ANC service?</b>	
During illness	17 (6.8)
At any time	35 (14.0)
Both	176 (70.4)
Missing system	22 (8.8)

The table 7 result on mother attitude on ANC shows that of respondent who ever heard of ANC 12 (4.8%) do not follow ANC service. Among those who want to follow ANC service majority 201 (80.4%) want to follow in health institution, 25 (10%) follow at private clinic. Among those who do not want to follow majority (60%) was due to religious factor.

Table 7: Mother attitude about ANC service

Variable	Frequency (%) = 250
<b>When you are pregnant do you use to go for ANC?</b>	
Yes	235 (94.0)
No	12 (4.8)
Missing	3 (1.2)

<b>Where do you get the service?</b>	201 (80.4)
Health Institution	25 (10)
Private Clinic	24 (9.6)
Missing	

Table 8 result show that there is significant association between mother knowledge about ANC service and Educational status which show that those that are Educated have almost 100% knowledge about ANC service.

**Table 8:** Relationship between Educational status and mother knowledge about ANC service

Variables	Do you know about ANC		
	Yes	No	Total
Education			
Islamic School	97	17	114
SSCE	48	01	49
Diploma / Degree	87	00	87
Total	232	18	250

$X^2 = 18.409^2$      $df = 2$      $p \text{ value} = 0.000$

The result of Table 9 shows that there is no significant association between tribe and ANC knowledge.

**Table 9:** Relationship between Mother knowledge about ANC service with Tribes

Variables	Do you know about ANC		
	Yes	No	Total
Tribe			
Hausa/Fulani	190	18	208
Yoruba	19	0	19
Igbo	16	0	16
Others	7	0	7
Total	232	18	250

$X^2 = 3.456^2$      $df = 3$      $p \text{ value} = 0.327$

The result of Table 10 shows that there is no significant association between ANC knowledge with religion among the respondents.

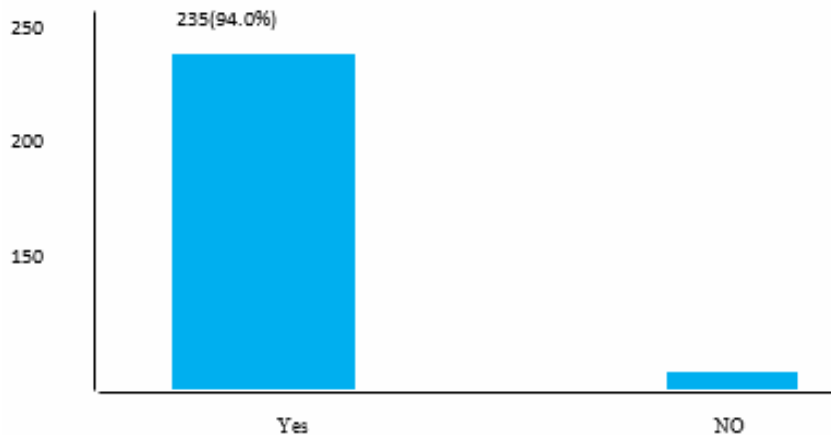
**Table 10:** Relationship between Mother knowledge about ANC service with Religion

Religion	Do you know about ANC		
	Yes	No	Total
Islam	216	18	234
Christianity	16	0	16
Total	232	18	250

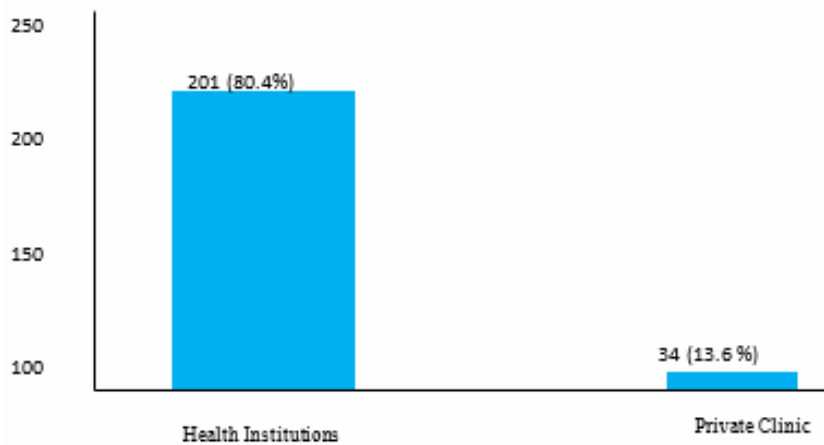
$X^2 = 1.161^2$      $df = 1$      $p \text{ value} = 0.338$

Table 11 result on practice of ANC shows that majority of the respondents 235 (94%) followed ANC service. Among the respondents who followed ANC (235) service 201 (80.4%) got the service at health institution and 193 (77.2%) got the service four times and above.

Fig 5: When you are pregnant, do you use to go for ANC



Where do you go for ANCS



Other Practice About Anc Service

Table 11: Pregnant practice about ANC Service

Variable	Frequency (%) = 250
<b>Have you followed ANC service?</b>	
Yes	235 (94.)
No	12 (4.8)
Missing	3 (1.2)
<b>How many times did you get ANC service?</b>	
Two	3 (1.2)
Three	37 (14.8)
Four and above	193 (77.2)
Missing	17 (6.8)

The table 12 shows majority of the respondents 131 (52.4%) deliver at hospital. About 96 (38.4%) of the respondent face miscarriage and other pregnancy complication.

Table 12: Pregnant mother practice about delivery

Variable	Frequency (%) = 250
<b>Where did you deliver</b>	
Home	113 (45.2)
Hospital	131 (52.4)
Missing system	6 (2.4)

Fig 7: How many times mother should get ANC Service

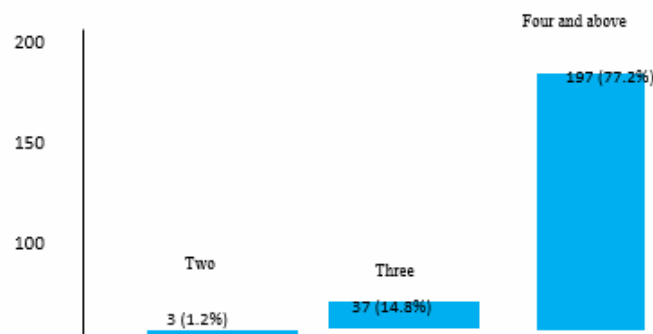
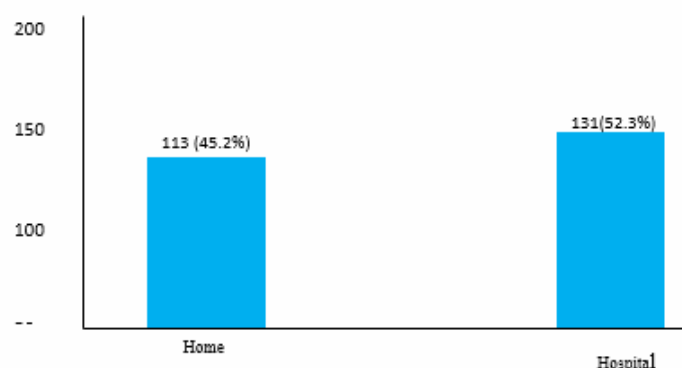


Fig: Where did you deliver.



The result of table 13 shows that there is statistically significant association between qualification and practice of antenatal care.

TABLE 13: Relationship between education and practice

Variables	Where do you deliver		
	Home	Hospital	Total
Islamic School	58	50	108
SSCE	28	27	55
Diploma / Degree	26	61	87
Total	112	138	250

$X^2 = 12.647^2$  df = 2 p value = 0.002

The table 14 shows there is statistically significant association between ANC knowledge and ANC practice.

Table 14: Relationship between Mother knowledge and Mother practice of ANC service.

Variables	ANC Practice		Total
	Yes	No	
ANC knowledge			
Yes	232	00	232
No	06	12	18
Total	238	12	250

$X^2 = 160.462^2$  df = 1 p value = 0.000

### Discussion

This study tried to assess the knowledge, attitude and practice of women towards antenatal care. It is known that most Perinatal deaths can be prevented if adequate antenatal care and timely obstetric care is provided. In this study. A total of 250 married women in reproductive age group were successfully interviewed, given response rate of 100%. In Table 1 the majority of the respondent 110 (44%)s were in the age group of 26 – 35 years which is similar to the study conducted in Mizam health center, Southwest Ethiopia, but different



with study conducted in Gumbi village Sokoto which was 20 – 24 years. The predominant ethnic group in this study area were Hausa/Fulani 208 (83.2%) which is different from that of Mizan health center Southwest, Ethiopia which was Bench 110 (43.1%). Most of the respondents in our study area were Muslims 234 (93.6%) this is not surprising because Muslim is the predominant religion in the community (Study Area) unlike a study conducted in Enugu state Southeastern Nigeria by (6) were most are Christians 110 (46%). Regarding educational status majority 114 (45.6%) of the respondents in our study area attended Islamic school which is similar to the study conducted in Gumbi Village Sokoto by (3) 89%. Majority of the respondents in our study area were house wife 178 (71.2%) which is similar to both the study carried out in Mizan health center Southwest, Ethiopia and Gumbi village Sokoto but different from the study carried out by (4) in 'Nigeria. Majority 146 (58.4%) of the mothers had 1-3 numbers of children.

In table 2: overall knowledge regarding need of expectant women to go for prenatal assessment 232(92.8%) only 18(7.2%) of the respondent do not know about antenatal care. This result was lower than the study conducted in Assiut General Hospital which was (25.5%). This difference could be due to difference in source population and time of study and other reason in difference in operational definition<sup>5</sup>. But our result is comparable with the result of study conducted in Mizan health center. South Western Ethiopia in 2015 11.5%<sup>7</sup>. The other study conducted in Enugu, South eastern Nigeria by (6) reported that (72.2%) of the respondent lacked basic and essential knowledge about antenatal care. This result was extremely higher than our study.

Table 3: Majority 235 (94%) of the respondents knows the danger sign of pregnancy. Among these majority listed vaginal bleeding in contrast to the study conducted in Mizan health center Southwest, Ethiopia which is lower than this value 75.5% knows the danger sign of pregnancy.

Table 4: shows that only 18 (7.2%) of respondents lack good knowledge about ANC and is lower than the study conducted in Enugu Southeastern part of Nigeria. Probably due to presence of PHC Primary Health Care close to the study area less than 200 metre and adequate health education.

Table 5: majority 232 (92.8%) of the respondents knows the health impact of not following antenatal care service, only (7.2%) of the respondents don't know the health impact of not following antenatal care service. Majority list maternal morbidity and mortality as the health impact of not following antenatal care service, this result is higher than the result obtained from study conducted in Enugu Southwestern Nigeria (66.7%). but lower than that of the study conducted in Calabar teaching hospital by (8) 97%.

Table 6: Majority 176 (70.4%) said pregnant women should only visit hospital during illness in contrast to the study conducted by (9). the majority said mother should visit hospital at any time not only during illness, for regular check up and monitoring.

In this result 12(4.8%) of the respondent had negative attitude towards ANC service. This result was lower than the result of study conducted in Mizan health center South West Ethiopia in (2015) which reported that (29.4%) of respondent had negative attitude towards antenatal care services. but higher than (3%) the study conducted in Osun State Nigeria by (10).

Table 7: majority 201 (80.4%) of the respondents followed their antenatal care service at public hospital which is similar to study conducted by (9). But differs from the study conducted in Abuja by (11) 60% followed their Antenatal care service in private hospital.

Table 8: show there is statistical significant association between mother knowledge about antenatal care service and educational status but Table 9 and 10 show that there is no significant association between knowledge with tribe and religion, which is similar to the study conducted in Osun State Nigeria by (10) and study conducted in Calabar teaching hospital, but differ from the findings conducted in Gumbi Village Sokoto which say there is no statistical significant association between mother knowledge about Antenatal care Service and educational status.<sup>7</sup>

In this study from among respondents who were ever been pregnant only 15(6%) of women did not follow Antenatal care service. This study was lower than the study conducted in Debarke health center which showed that the antenatal care coverage was (71.5%). Our study was also higher than the study reported in EDHS (Ethiopian Demographic and Health survey) 2005 and 2011 which indicated that percentages of mother who had antenatal care follow up at least one time were 28% and 34% respectively (12,13). The result of our study was similar (94%) to the study conducted in Tanzania, Rwanda and Malawi. The 2010 demographic and Health survey of Tanzania indicated that the proportion of pregnant woman who ever had at least one antenatal care visit was (96%). The demographic and health survey of Rwanda and Malawi reported similar results. This figure was (98%) and (97.6%) in Rwanda and Malawi respectively<sup>23,26,28</sup>.

Study conducted by (9) show similar finding to our study that says there is statistical significant association between qualification and knowledge, of pregnant women regarding antenatal care, significant association in qualification and practice and also significant association in knowledge and practice. This is not surprising since knowledge of Antenatal care and practice is synonymous to Education.

The gap in the knowledge, attitude and practice is quite low as (92.8%) of respondents demonstrated good knowledge while (94%) of them practice antenatal care. Similar to study conducted in University of

Calabar teaching hospital both differ from that of Osun State by (10) 83.3% know about ANC service but (56.9%) attend ANC regularly. Which show the gap between knowledge and practice is quite high.

This indicate that knowledge of antenatal care in our stud area was fairly good as well as good practice towards antenatal care. This is a positive finding that will reduce both maternal morbidity and fetal morbidity in our study area. Despite good knowledge and good practice towards ANC service about (45.2%) of the respondents still deliver at home.

### **Conclusion**

The study have high knowledge and practice of ANC but there is still poor hospital delivery among pregnant women in the study area.

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