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Determinants of Antenatal Care Utilization Among Women of Child Bearing Age Attending Antenatal Clinic at Hadejia General Hospital

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Abstract

This study assessed the determinants of antenatal care (ANC) utilization among women of childbearing age attending the antenatal clinic at Hadejia General Hospital, Jigawa State, Nigeria. Findings indicated a high level of awareness of ANC services, with 90.9% of respondents reporting awareness, compared with 9.0% who were unaware. Hospitals (54.8%) and radio (36.0%) were the major sources of information. Overall, 86.4% of respondents utilized ANC during pregnancy, while 9.0% did not attend and 4.5% attended irregularly. Social media was also an important source of maternal health information, with 81.2% of respondents reporting exposure. Facebook (50.3%), WhatsApp (27.0%), and TikTok (18.0%) were the most frequently used platforms. Despite the high utilization rate, financial difficulties remained the leading barrier to ANC attendance. Cultural beliefs (31.5%), inadequate awareness (22.5%), limited accessibility to health facilities (41.3%), and service costs (9.0%) were additional challenges. Regarding health insurance, 45.8% of respondents had coverage, while 45.1% were not covered and 9.0% were unaware of available schemes. More than half (52.6%) utilized health insurance services. Furthermore, 77.4% reported completing the recommended ANC visits, while 59.3% commenced ANC during the first trimester. The study concludes that ANC awareness and utilization were generally high; however, financial, cultural, insurance, and accessibility barriers continue to influence utilization. Strengthening maternal health education through healthcare facilities, radio, and social media, while improving affordable and accessible services and health insurance coverage, is recommended.

Keywords: Antenatal Care; Utilization; Determinants; Maternal Health; Health Insurance.

Introduction

Background of the Study

Antenatal care (ANC) is a cornerstone of maternal health services, providing a platform for crucial interventions during pregnancy. The World Health Organization (WHO) defines ANC as the care provided by skilled health professionals to pregnant women to ensure the best health conditions for both mother and baby during pregnancy (WHO, 2016). The core components of ANC include the identification and management of pre-existing conditions and pregnancy-related complications, tetanus toxoid immunization, iron and folic acid supplementation, prevention and treatment of malaria and anaemia, and health education and counseling on danger signs, nutrition, and birth preparedness (Lawn et al., 2016). By facilitating early detection of risks and promoting skilled birth attendance, adequate ANC utilization is proven to reduce maternal and neonatal morbidity and mortality (Kuhnt & Vollmer, 2017).

The WHO has updated its guidelines to recommend a minimum of eight antenatal care contacts, increasing from the previous four-visit model, to enhance the likelihood of a positive pregnancy experience and improve maternal and fetal outcomes (WHO, 2016). However, implementation of these guidelines is inconsistent, and many countries, especially in resource-constrained settings, still struggle to achieve even the former standard of four visits. A recent meta-analysis of maternal healthcare services in LMICs found that while 85.0% of women attended at least one ANC visit, only 50.8% completed four or more visits (Tessema et al., 2021). This gap between initial contact and comprehensive care highlights missed opportunities for critical interventions.

Utilization of ANC is a complex health behavior influenced by a multitude of factors. These determinants are often categorized into predisposing factors (like maternal age, education, and marital status), enabling factors (such as household income, health insurance, and distance to a health facility), and need factors (including perceived health status and obstetric history) (Tessema et al., 2021; Bintabara et al., 2023). sub-Saharan Africa, specific barriers have been consistently identified. Women with higher education and those from wealthier households are significantly more likely to utilize ANC optimally (Bintabara et al., 2023). For instance, a study across 26 sub-Saharan African countries revealed that health insurance coverage had one of the strongest positive associations with attending four or more ANC visits (Tessema et al., 2021). Conversely, living in a rural area, long distances to health facilities, and the need to obtain permission to seek healthcare are significant obstacles (Mekonnen et al., 2019).

Nigeria, as the most populous country in Africa, contributes disproportionately to global maternal death figures, bearing about 10% of the global burden (WHO, 2023). With an estimated maternal mortality ratio of 512 deaths per 100,000 live births, Nigeria's performance lags significantly behind the global target of less than 70 per 100,000 set by the Sustainable Development Goals (SDG 3.1) (National Population Commission [NPC] & ICF, 2019). This translates to approximately 40,000 maternal deaths annually, making Nigeria the second-largest contributor to maternal deaths worldwide (WHO, 2023).

Statement of the Problem

Maternal mortality continues to be a major public health problem, especially in developing countries. Many women still die from preventable pregnancy-related complications due to inadequate access to and utilization of maternal healthcare services. Antenatal care is an important strategy for improving maternal and neonatal health because it provides an opportunity for healthcare providers to monitor pregnancy, detect complications early, and provide necessary

interventions.

Despite the importance of antenatal care services, many pregnant women in Nigeria do not utilize these services adequately. Although some women attend at least one antenatal visit during pregnancy, a significant number do not complete the recommended number of visits required for proper monitoring of pregnancy (NPC & ICF, 2019). This inadequate utilization of antenatal services contributes significantly to maternal and neonatal morbidity and mortality.

In Northern Nigeria, including Jigawa State, several factors have been identified as barriers to antenatal care utilization. These include low educational level, poverty, cultural beliefs, distance to healthcare facilities, lack of awareness about the importance of antenatal care, and poor healthcare infrastructure (United Nations Population Fund, 2022).

Although Hadejia General Hospital provides antenatal care services to women in Hadejia and surrounding communities, it has been observed that not all pregnant women fully utilize these services. This situation raises concern about the factors influencing antenatal care utilization among women attending the antenatal clinic at the hospital.

Therefore, this study seeks to examine the determinants of antenatal care utilization among women of childbearing age attending the antenatal clinic at Hadejia General Hospital in order to identify factors affecting the use of these services and provide recommendations for improving maternal healthcare utilization in the area.

Objectives of the study

1. To determine the level of awareness of women of child bearing age attending Hadejia General Hospital about antenatal care.
2. To identify the factors inhibiting antenatal care utilization among women of childbearing age.
3. To assess the level utilization of antenatal care among woman of child bearing age.

Research Questions

1. What are level awareness of woman of child bearing age on antenatal care?
2. What are the factors inhibiting antenatal care utilization among women of childbearing age?
3. What is the level of antenatal care utilization among women of child bearing age.

Significance of the Study

The findings of this study will be beneficial to several stakeholders:

Nursing profession: The research is highly significant to the nursing profession because it provides important information that can improve maternal and child health services.

Healthcare providers: It will help health care professionals to understand barriers to antenatal care utilization and improve service delivery.

Policy makers: The study will provide evidence for developing policies and programs aimed at improving maternal health services.

Community members: It will increase awareness about the importance of antenatal care in preventing pregnancy complications.

Researchers and students: The study will serve as a reference material for future research on maternal healthcare utilization.

Scope of the Study

This study focuses on women of childbearing age attending the antenatal clinic at Hadejia General Hospital in Jigawa State, Nigeria. It examines the factors influencing their utilization of antenatal care services, including socio-demographic, economic, cultural, and health system determinants.

Conceptual review

Antenatal care (ANC) refers to the routine healthcare services provided to pregnant women during pregnancy to ensure the best health conditions for both the mother and the fetus. Antenatal care includes physical examinations, laboratory tests, immunization, health education, nutritional counseling, and early detection of pregnancy-related complications (World Health Organization, 2016).

According to the World Health Organization, antenatal care plays a crucial role in reducing maternal and neonatal morbidity and mortality. The organization recommends a minimum of eight antenatal contacts during pregnancy to ensure proper monitoring and effective management of potential complications (WHO, 2016).

Antenatal care also provides an opportunity for healthcare providers to educate pregnant women on healthy behaviors during pregnancy, such as proper nutrition, personal hygiene, birth preparedness, and recognition of danger signs during pregnancy (United Nations Children's Fund, 2021).

Importance of Antenatal Care

Antenatal care is an important strategy for improving maternal and child health outcomes. It provides an opportunity for early detection and management of pregnancy-related complications such as anemia, hypertension, infections, and fetal abnormalities.

Regular antenatal visits help healthcare providers monitor the progress of pregnancy and provide preventive interventions such as tetanus toxoid immunization, malaria prevention, and iron supplementation. These interventions help reduce maternal and neonatal mortality (United Nations Population Fund, 2022).

Antenatal care also promotes health education for pregnant women. Through antenatal visits, women receive information about proper nutrition, family planning, breastfeeding, and newborn care. This knowledge helps improve maternal and neonatal health outcomes (WHO, 2016).

Antenatal Care Utilization

Antenatal care utilization refers to the extent to which pregnant women make use of antenatal services during pregnancy. It includes attending antenatal clinics regularly, receiving recommended health services, and completing the recommended number of antenatal visits.

Globally, the utilization of antenatal care services has improved over the years; however, many women in developing countries still face barriers that prevent them from accessing these services. According to the World Bank, many pregnant women in low-income countries do not receive adequate antenatal care due to poverty, lack of education, and poor access to healthcare services (World Bank, 2020).

Several studies have examined the determinants of antenatal care utilization in different parts of the world.

Level of awareness of woman of child bearing age about antenatal care

A research conducted by Aya s.aldaher (2025) on Antenatal Care (ANC) knowledge and utilization among women of childbearing age at the College of Medicine, University of Sharjah in the United Arab Emirates which says that, More than half (55.4%) of the 426 women who participated were students,

and 49.8% held a bachelor's degree, while 54.0% were aged between 18 and 23 years old. Overall, 60.3% of the participants had previously heard about ANC, and the majority (94.1%) recognized its importance during pregnancy. About 110 women who had been pregnant, 52 (47.3%) reported attending ANC visits. The level of knowledge about ANC varied between good (39%), moderate (45%), and poor knowledge (16%). Higher levels of knowledge were observed in women with college degrees ($p = 0.015$), women employed in the healthcare sector ($p = 0.001$), multigravida women ($p = 0.04$), and women from higher-income families ($p = 0.007$). Knowledge level showed no association with age or marital status. 50% of the participants were unaware of the recommended dietary habits and weight gain during pregnancy, and only 16.3% correctly identified the proper timing for initiating folic acid intake during pregnancy.

Factors inhibiting utilization of antenatal care among woman of child bearing age

A research conducted by Adewuyi (2018) examined determinants of ANC utilization in Nigeria in university of kwazulu natal south Africa and found that low educational attainment, rural residence, and lack of media exposure were key inhibiting factors. The study emphasized that awareness creation through mass media could improve ANC attendance.

A nationwide study by Adewuyi et al. (2024) from Edith Cowan University, Australia, which analyzed Nigeria Demographic and Health Survey data, found that ANC utilization remains low, with only 20.3% of women achieving the recommended eight visits. The study identified major inhibiting factors such as poverty, lack of health insurance, low education, rural residence, and limited media exposure, all of which reduce women's ability to access ANC services (Adewuyi et al., 2024).

Similarly, a study by Oladele et al. (2024) from the Slum and Rural Health Initiative, Ibadan, reported that young women and adolescents face significant barriers including financial constraints, poor awareness, cultural and religious beliefs, and inadequate healthcare facilities, which contribute to poor ANC utilization in Nigeria (Oladele et al., 2024)

Utilization of antenatal care among woman of child bearing age

A study conducted in Nigeria using data from the Nigeria Demographic andHealth survey in national population commission of Nigeria found that maternal education, household wealth, and urban residence were significant predictors of antenatal care utilization (National Population Commission of Nigeria & ICF International, 2019).

In sub-Saharan Africa, only about 52% of women complete at least four ANC visits despite higher rates of initial contact, demonstrating inadequate utilization of maternal health services .Similarly, in Nigeria, about 61% of pregnant women attend at least one ANC visit, but many do not continue care or utilize skilled delivery services

Furthermore, in the South-South region of Nigeria, Okhaise et al. (2024) of Niger Delta University, Bayelsa State, conducted a hospital-based study which showed that utilization of ANC services is influenced by accessibility, cost of services, and perceived quality of care among pregnant women (Okhaise et al., 2024). In another national study, Imo (2022) using data from the Nigeria Demographic and Health Survey demonstrated that women who have greater decision-making autonomy are more likely to utilize ANC services adequately compared to those with limited autonomy (Imo, 2022).

Theoretical Framework

This study is based on the Health Belief Model (HBM), which explains how individuals make decisions about their health behaviors.

The Health Belief Model suggests that a person's health behavior is influenced by several factors, including perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action.

According to this model, pregnant women are more likely to utilize antenatal care services if they believe that:

They are at risk of pregnancy complications.

Pregnancy complications can have serious consequences.

Antenatal care can help prevent or manage these complications.

The benefits of antenatal care outweigh the barriers such as cost and distance.

This model is useful for understanding the factors influencing antenatal care utilization among women of childbearing age.

Research Methodology

This chapter presents the methods and procedures that was used in carrying out the study on the determinants of antenatal care utilization among women of childbearing age attending antenatal clinic at Hadejia General Hospital. It includes the research design, area of the study, population of the study, sample size and sampling technique, instrument for data collection, validity and reliability of the instrument, method of data collection, method of data analysis, and ethical considerations.

Research Design

The study employed descriptive cross-sectional research design. This design is considered appropriate because it enables the researcher to obtain information from respondents at a particular point in time regarding the determinants influencing antenatal care utilization among women of childbearing age attending antenatal clinic at Hadejia General Hospital.

Area of the Study

This study was conducted at Hadejia General Hospital located in Hadejia Local Government Area of Jigawa State, Nigeria. The hospital is one of the major secondary healthcare institutions serving the people of Hadejia and neighboring communities within Jigawa State and parts of Yobe State. It is strategically situated in K/Kuda ward along Nguru Road, Hadejia. The hospital operates twenty-four hours daily and provides both outpatient and inpatient healthcare services to the population.

Hadejia is an ancient Hausa town and an important commercial center in the northeastern part of Jigawa State. The town consists of several political wards such as Atafi, Dubantu, Gagulmari, Kasuwar Kofa, Kasuwar Kuda, Matsaro, Majema, Rumfa, Sabon Garu, Yankoli, and Yayari. The area is populated mainly by Hausa and Fulani ethnic groups whose major occupations include farming, fishing, trading, and animal rearing. The presence of healthcare institutions and educational centers within the town makes it an important center for healthcare delivery in the region.

Hadejia General Hospital was established on 12th June, 1961, making it one of the oldest government healthcare institutions in the northeastern axis of Jigawa State. The hospital was established by the government to improve access to quality healthcare services for the growing population of Hadejia Emirate and surrounding communities. It is recognized and licensed by the Federal Ministry of Health as a Secondary Health Care Centre with facility code 17/13/1/2/1/0001.

The hospital has experienced gradual expansion over the years in terms of infrastructure, manpower, and healthcare services. Reports indicate that the hospital currently has about 245 bed spaces for

admission of patients across different units and wards. The hospital serves as a referral center for many primary healthcare centers within Hadejia Local Government Area and nearby communities.

The hospital provides numerous healthcare services including medical, surgical, pediatric, obstetrics and gynecology services. Other services available include accident and emergency care, maternal and child healthcare, family planning services, immunization, HIV/AIDS services, tuberculosis treatment, nutrition services, health education, and community mobilization programs. The hospital also provides antenatal care (ANC) services, which makes it suitable for this study on determinants of antenatal care utilization among women of childbearing age.

Within the maternity and antenatal units, pregnant women receive routine antenatal examinations, health education, laboratory investigations, nutritional counseling, immunization, malaria prevention, delivery services, postnatal care, and referral services for complicated pregnancies. The antenatal clinic is staffed by doctors, nurses, midwives, laboratory scientists, pharmacists, and other healthcare personnel who work together to ensure safe maternal and child healthcare delivery.

- The hospital also contains several important departments and units such as:
- General Out-Patient Department (GOPD)
- Antenatal Clinic (ANC)
- Maternity and Labour Ward
- Pediatric Unit
- Surgical Unit
- Medical Ward
- Laboratory Department
- Pharmacy Department
- Emergency Unit
- Immunization Unit
- Family Planning Unit
- Dental Unit
- Nutrition and Health Education Unit

Additionally, the hospital has ambulance services, mortuary services, onsite pharmacy, and laboratory facilities which support effective healthcare delivery to patients.

The choice of Hadejia General Hospital as the area of study is appropriate because the hospital records a large number of women attending antenatal clinic services from Hadejia town and neighboring rural communities. This provides the researcher with an adequate population for assessing the determinants influencing antenatal care utilization among women of childbearing age. The hospital's role as a major referral center also makes it suitable for obtaining reliable information regarding maternal healthcare utilization patterns in the area.

Population of the Study

The target population for this study consist of all women of childbearing age attending antenatal clinic at Hadejia General Hospital during the period of the study.

Sample Size Determination

The sample size for this study will be determined using the Taro Yamane formula:

n=N/1+N(e)2

Where:
n = required sample size
N = total population of women attending antenatal clinic
e = level of significance (0.05)
Assuming the average monthly attendance of women at the antenatal clinic is 200:
n=200/1+200(0.05)2
n=200/1+200(0.0025)
n=200/1+0.5
n=200/1.5
n=133
Therefore, the sample size for the study will be 133 respondents.

Sampling Technique
A convenient sampling technique was used to select respondents attending antenatal clinic at Hadejia General Hospital. This technique will give all eligible women equal opportunity to participate in the study.

Instrument for Data Collection
The instrument for data collection was a structured questionnaire developed by the researcher after reviewing related literature. The questionnaire will consist of two sections:

Section A
This section was contain socio-demographic characteristics of respondents such as age, marital status, educational level, occupation, religion, and parity.

Section B
This section contain questions from the research objectives

Validity of the Instrument
The questionnaire was submitted to the project supervisor for proper scrutiny and corrections to ensure content and face validity.

Reliability of the Instrument
The reliability of the instrument was tested through a pilot study conducted among women attending antenatal clinic in another health facility outside the study area. Cronbach's alpha method will be used to determine the internal consistency of the instrument, and a reliability coefficient of 0.70 or above will be considered acceptable.

Method of Data Collection
An introduction letter was obtained from the Department of Nursing Sciences and presented to the management of Hadejia General Hospital for permission to conduct the study. The researcher will administer the questionnaires directly to respondents during antenatal clinic sessions and collect them immediately after completion.The woman of child bearing age attending antenatal care clinic at hadejia general hospital from Monday to Thursday in a week.This process will take 3 weeks to be completed.

Method of Data Analysis

Data collected was coded, organized, and analyzed using Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics such as frequency tables, percentages, mean, and standard deviation will be used to present the findings. Results will be presented using tables and charts where necessary.

Ethical Consideration

Ethical clearance and approval for data collection was collected from the research coordinator of the institution and submit to the Study area after which an ethical approval will be obtained from the ethical committee of Hadejia General Hospital before commencement of the study. Informed consent will be obtained from respondents before data collection. Participants will be assured of confidentiality, anonymity, and their right to withdraw from the study at any stage without any penalty.

Data Presentation and Analysis

This chapter presents the findings of the study on the determinants of antenatal care (ANC) utilization among women of childbearing age attending the ANC clinic at Hadejia General Hospital, Jigawa State, Nigeria. The results are organized into four main sections:sociodemographic characteristics of respondents, the level of awareness of women of child bearing age,factors inhibiting antenatal care utilization among women of childbearing age.level utilization of antenatal care among woman of child bearing age.

Table 1 Sociodemographic characteristics of respondants

Data		Score	Percentage %
1.Age.	**18-23**	62	46.6
	24-29	12	9.0
30-35		59	44.3
36-above		0	0
Total		133	
2.Tribe			
Hausa		97	72.9
Fulani		24	18.0
Kanuri		12	9.0
Others		0	
Total		133	
3.Religion			
Islam		91	68.4
Christianity		42	31.5
Others		0	0
Total		133	
4.Marrital Status			
Married		109	81.9
Divorce		6	4.5
Widow		16	4.5
Others		12	1.5
Total		133	

Data	Score	Percentage %
5.Level of Education		
Primary	24	18.0
Secondary	46	34.5
Tertiary institution	63	47.3
Total	133	

The above table 1 shows that most of the research respondants are within the age of 18-23(46.1%),and about (43.3%) were within the age of 30-35,also (9.0%) are within the age of 24-29) and no respondants that are above 36 years of age.

Most of the women of child bearing age attending antenatal care clinic at hadejia general hospital were Hausa tribe (72.9%),also (18.0%) respondants were Fulani tribe and about (9.0%) were kanuri tribe.All the respondants are from the above three tribe.

Furthermore, majority of the women are from Islamic population (68.4%) and remaining (31.5%) are from christian community.

About (81.9%) of the respondants are married women of child bearing age,and about (4.5%) are divorce woman and also (4.5%) are widow woman and remaining (1.5%) are others.

Moreover, most of woman are attended tertiary institution (47.3%),were about (34.5%) had secondary school and about 18.0%) of the respondants had only primary school.This shows that majority of the respondants had attended tertiary institution follow by secondary school and then those with only primary school.

Table 2 level of awareness of women of child bearing age

Data	Score	Percentage %
1.Did you hear about antenatal care?		
Yes	121	90.9
No	12	9.0
Total	133	
2.If yes through which medium did you hear about it?		
Radio	48	36.0
Hospital	73	54.8
Family and friend	0	0
Others	12	9.0
Total	133	
3.Did you understand the importance of ANC during pregnancy?		
Yes	133	100
No	0	
I don't know	0	
Total	133	
4. If yes did go to ANC when you are pregnant?		
Yes	115	86.4
No	12	9.0

Not all time	6	4.5
Total	133	
5.Which period did you go to ANC regular?		
First pregnancy	67	50.3
Second pregnancy	48	36.0
All mention	12	9.0
Others	6	4.5
Total	133	

Table 2 above shows that majority of the respondents (90.9%) reported aware about antenatal care and (9.0%) were not aware about antenatal care.

The table reveal that (54.8%) of the respondents demonstrated aware about antenatal care through hospital visit, about (36.0%) aware about antenatal care through radio and no respondents are become aware about it through family and friends and about (9.0%) of respondents knows about antenatal care through others medium.All the respondents 100% demonstrate understanding of the importance of Antenatal Care.

About (86.4%) of the women are attending ANC clinic when they are pregnant,were (9.0%) of the respondents don't attend ANC clinic and (4.5%) of the women attend ANC clinic but not all time.

Moreover,(50.3%) of the respondents reported attending ANC clinic at they first pregnancy,(36.0%) of the women reported attending ANC clinic at their second pregnancy and (9.0%) of the respondents attending ANC clinic both in their first and second pregnancy and (4.5%) of woman of child bearing age attending ANC clinic at other pregnancy period.

Table 3,factors inhibiting antenatal care utilization among women of child bearing age

Data	Score	Percentage %
1.Did you have social media exposure?		
Yes	109	81.2
No	18	6.0
I don't know	6	4.5
Total	133	
2. If yes which media are you using?		
Facebook	67	50.3
WhatsApp	36	27.0
TikTok	24	18.0
Others	6	4.5
Total	133	
3. What do you think are the barrier that hinder you from utilizing ANC service?	61	45.8
Financial constraint	42	31.5
Cultural factors	30	22.5
Poor awareness		

Data	Score	Percentage %
Others	0	
Total	133	
4. Did you have health insurance?		
Yes	61	45.8
No	60	45.1
I don't know	12	9.0
Total	133	
5.If yes did you utilizing it?		
Yes	70	52.6
No	63	47.3
Total	133	

The table 3 shows that majority of the women (81.2%) of child bearing age attending antenatal care clinic at hadejia general hospital had social media exposure, were about (6.0%) of the women don't have social media exposure and (4.5%) of the women don't know.Most these woman (50.3%) of them exposed through Facebook,(27.0%) of the women exposed through WhatsApp, while about (18.0%) expose through TikTok and (4.5%) exposed through other media of communication.

All most of the women demonstrate financial constraint as the factor hinder they Utilization to ANC services,were (31.5%) of the women show cultural factor as the factor that restrict them from utilization ANC services and (22.5%) of woman shows poor awareness as the factor that hinder them from utilizing ANC services.

The (45.8%) of the women expressed they had health insurance and (45.1%) shows that they don't have health insurance and (9.0%) of the women indicate they don't know about health insurance.

Most of the women (52.6%) were utilizing the health insurance scheme and (47.3%) the women don't utilize the health insurance scheme.

Table 4 level utilization of antenatal care among woman of child bearing age.

Data	Score	Percentage %
1.Did you completed ANC visit?		
Yes	103	77.4
No	30	22.5
I don't know	0	0
Total	133	
2.If yes how many times did you go for ANC?		
Two	6	4.5
Four	54	40.6
Eight	55	41.3
I don't know	18	13.5
Total	133	

Data	Score	Percentage %
3. When is your initial contact with ANC Clinic?		
During first trimester	79	59.3
Second trimester	24	18.0
Third trimester	30	22.5
Total	133	
4.Did you have good access to ANC?		
Yes	103	77.4
No	24	18.0
some time	6	4.5
Total	132	
5. Of no what hinder you from good access to ANC?		
Inaccessibility of ANC services	55	41.3
Cost of services	12	9.0
Lack of qualitative services	0	0
Others	66	49.6

The above table 4.4 indicate (77.4%) of the respondents completing they ANC visit,were (22.5%) of the women don't complete ANC visit and table reveal no woman who don't know about ANC visit.Major of the women (41.3%) attend ANC clinic about eight times throughout the period of pregnancy, while (40.6%) of woman goes ANC visit four times,(13.5%) of the respondents don't know and (4.5%) of the women goes ANC visit two times.

Furthermore,(59.3%) of the women had initial contact with ANC clinic during first trimester,(22.5%) of the women had initial contact with ANC clinic during third trimester and (18.0%) of the women had they initial contact with ANC clinic during the second trimester of pregnancy.

All most of the respondents (77.4%) have good access to antenatal care,(18.0%) had no good access to antenatal care and (4.5%) had good access to antenatal care some time.

The table also indicate (49.6%) of the respondents had other things that hinder them from good access to antenatal care,(41.3%) of the respondents show inaccessibility of ANC services are the thing that hinder them from good access to antenatal care,(9.0%) of the respondants reveal cost of ANC services as the thing that hinder them from good access to antenatal care and no respondents that indicate lack of qualitative ANC services as the thing that hinder them from good access to antenatal care.

Discussion of findings

This section discusses the results, recommendation, summary and conclusion in relation to the research objectives.

Sociodemographic Characteristic

Findings from the study revealed that highest proportion of the respondents were within the ages of 18-23 years, this corresponded with the findings of Abdulwali et al. (2024) in Nigeria which found that the respondents were within similar age range as above, more than a third (72.9%) were Hausa, this could be attributed to the geographical location which is predominated by Hausas and Fulanis. About (47.3%) of them which constituted the highest proportion attained tertiary level of education, more than two-fifth 81.9% were married women, more than half (68.4) were Islamic woman respectively.

Level of awareness of women of child bearing

Findings from the study revealed (90.9%) of respondents reported aware about antenatal care but only (9.0%) were not aware about antenatal care. This finding correlate and is consistent with the study conducted by Elekeh Rosemary Ichita et al. (2026), who reported that awareness of antenatal care among women of reproductive age in Obingwa Local Government Area, Abia State, Nigeria, was generally high. The finding from study also revealed that (54.8%) of the respondents demonstrated aware about antenatal care through hospital visit, about (36.0%) aware about antenatal care through radio and no respondents are become aware about it through family and friends and about (9.0%) of respondents knows about antenatal care through others medium.Which become consistent with research finding by Okoro et al. (2023) found that health professionals in healthcare facilities were the primary source of maternal health information, while radio also contributed to creating awareness, especially in rural communities. The study recommended strengthening health education in hospitals and increasing radio health campaigns to improve maternal health knowledge.The finding revealed about (86.4%) of the women are attending ANC clinic when they are pregnant,were (9.0%) of the respondents don't attend ANC clinic and (4.5%) of the women attend ANC clinic but not all time.Moreover,(50.3%) of the respondents reported attending ANC clinic at they first pregnancy,(36.0%) of the women reported attending ANC clinic at their second pregnancy and (9.0%) of the respondents attending ANC clinic both in their first and second pregnancy and (4.5%) of woman of child bearing age attending ANC clinic at other pregnancy period.This finding is consistent with the study conducted by Ichita et al. (2026), which reported a high level of antenatal care utilization among women of reproductive age in Abia State, Nigeria. The study found that most women attended ANC services during pregnancy because they recognized its importance in monitoring maternal and fetal health and preventing pregnancy-related complications.

Factors inhibiting antenatal care utilization among women of child bearing age

Finding from the study revealed that the majority of women of childbearing age attending antenatal care (ANC) at Hadejia General Hospital had social media exposure (81.2%). Facebook was the most commonly used platform (50.3%), followed by WhatsApp (27.0%), TikTok (18.0%), and other communication media (4.5%). This finding agrees with recent studies showing that social media has become an important source of maternal health information, with Facebook and WhatsApp being the most frequently used platforms among pregnant women for obtaining pregnancy and ANC-related information. These platforms improve women's awareness and health-seeking behaviour when reliable information is available.The study also revealed that financial constraints were the major barrier to the utilization of ANC services. Cultural beliefs (31.5%) and poor awareness (22.5%) were also identified as significant barriers. This finding is consistent with Adewuyi et al. (2024), who reported that women from poorer households, rural communities, and those with limited education were less likely to utilize adequate ANC services because of financial and socio-cultural barriers. Similarly, a multi-country study in sub-Saharan Africa found that socioeconomic status, education, community factors, and cultural influences significantly affect adequate ANC utilization.

Regarding health insurance, the present study found that (45.8%) of respondents had health insurance, while (45.1%) did not have insurance and (9.0%)were unaware of health insurance schemes. This finding is similar to Esan et al. (2025), who reported that health insurance coverage among Nigerian women remains low and that limited enrollment continues to reduce access to maternal healthcare services. Furthermore, this study found that (52.6%) of respondents utilized health insurance, while (47.3%) did not. This agrees with Esan et al. (2025), who found that women with health insurance were

significantly more likely to attend the recommended number of ANC visits and deliver in health facilities than women without insurance. The study concluded that expanding health insurance coverage could improve access to and utilization of maternal healthcare services in Nigeria.

Level utilization of antenatal care among woman of child bearing age.

Finding from study revealed that 77.4% of the respondents completed their recommended antenatal care (ANC) visits, while 22.5% did not complete their ANC visits. This finding is consistent with recent studies that reported increasing utilization of ANC services among pregnant women, particularly among those who are educated and have access to healthcare facilities. A study by the World Health Organization (WHO, 2023) emphasized that completion of recommended ANC visits is associated with improved maternal and neonatal health outcomes.The study further revealed that 41.3% of the women attended ANC clinics eight times during pregnancy, while 40.6% attended four times, 4.5% attended twice, and 13.5% were unaware of the recommended number of visits. This finding corresponds with the WHO recommendation of at least eight ANC contacts during pregnancy and is supported by a 2024 study by Fagbamigbe et al., which reported a gradual increase in the adoption of the eight-contact ANC model among pregnant women in Nigeria, although many women still complete only four visits.Furthermore, 59.3% of the respondents initiated ANC attendance during the first trimester, 18.0% during the second trimester, and 22.5% during the third trimester. This finding agrees with a recent study by Ekholuenetale et al. (2024), which found that early initiation of ANC during the first trimester significantly improves the likelihood of completing the recommended ANC contacts and receiving essential maternal healthcare interventions. However, late initiation remains a challenge among many women in low-resource settings.The study also found that 77.4% of the respondents had good access to ANC services, while 18.0% reported poor access and 4.5% indicated occasional access. This finding is similar to a 2024 analysis of maternal healthcare utilization in Nigeria, which reported that improved healthcare infrastructure, increased awareness, and community-based maternal health programs have contributed to better access to ANC services among women of reproductive age.In addition, 49.6% of the respondents reported other factors hindering access to ANC services, while 41.3% identified inaccessibility of ANC facilities as a barrier and 9.0% reported the cost of services as a challenge. This finding is supported by recent studies in sub-Saharan Africa, which identified distance to health facilities, transportation difficulties, indirect costs of care, and other socioeconomic barriers as major determinants of poor ANC utilization (Ekholuenetale et al., 2024; UNFPA, 2024). Although none of the respondents identified poor quality of ANC services as a barrier, accessibility and affordability remain important challenges that require policy attention to improve maternal health outcomes.

Summary

The study was conducted to determine Determinants of antenatal care utilization among woman of child bearing age attending antenatal clinic at hadejia general hospital Jigawa state.Literatures related to the study were reviewed. A descriptive cross-sectional survey design was employed and data obtained through self-administered questionnaire. Data was collected from 133 women of child bearing age. Data obtained were analyzed with SPSS version 26.0. The findings revealed that the majority of respondents (90.9%) were aware of antenatal care services, while only 9.0% were not aware. Most respondents obtained information about ANC through hospital visits (54.8%), followed by radio (36.0%) and other sources (9.0%).The study further found that 86.4% of the women attended ANC clinics during pregnancy, while 9.0% did not attend and 4.5% attended irregularly. Most respondents reported attending ANC during their first pregnancy (50.3%), while others attended during their second

pregnancy (36.0%), both first and second pregnancies (9.0%), or other pregnancies (4.5%).Regarding factors influencing ANC utilization, the majority of respondents (81.2%) had exposure to social media, with Facebook being the most common platform, followed by WhatsApp and TikTok. Financial constraints were identified as the major barrier to ANC utilization, while cultural beliefs and poor awareness also contributed to reduced utilization. The study also revealed that 45.8% of respondents had health insurance coverage, whereas 45.1% did not have health insurance and 9.0% were unaware of health insurance schemes. Slightly more than half of the respondents (52.6%) utilized health insurance services. Concerning the level of ANC utilization, 77.4% of respondents completed the recommended ANC visits, while 22.5% did not. About 41.3% attended ANC eight times during pregnancy, 40.6% attended four times, and a few attended only two times. The majority of respondents (59.3%) initiated ANC attendance during the first trimester, while others started during the second or third trimester. The findings also showed that 77.4% of respondents had good access to ANC services, whereas 18.0% reported poor access and 4.5% had occasional access. Factors hindering access to ANC services included inaccessibility of health facilities, cost of services, and other socioeconomic barriers. Overall, the study demonstrated a high level of awareness and utilization of antenatal care services among women of childbearing age, although financial, cultural, and accessibility challenges continue to affect optimal utilization.

Conclusion

From the result obtained, it was concluded that antenatal care utilization among women of childbearing age attending Hadejia General Hospital was generally high, as evidenced by the high level of awareness, early initiation of ANC, and completion of recommended visits by most respondents. Awareness through hospital visits, social media exposure, and access to services positively influenced ANC utilization. However, financial constraints, inadequate health insurance coverage, cultural beliefs, and poor accessibility to health facilities remained significant determinants limiting optimal utilization. Addressing these barriers is essential to further improve antenatal care uptake and maternal health outcomes in the study area.

Recommendations

From the result obtained from the study, the following recommendations were made :

-✓ Health authorities should strengthen antenatal care awareness campaigns through hospitals, radio programs, and community outreach activities to sustain and improve awareness among women of childbearing age.

✓ Healthcare providers should encourage pregnant women to initiate antenatal care attendance during the first trimester to ensure timely detection and management of pregnancy-related complications.

√ Government and relevant stakeholders should reduce financial barriers to ANC utilization by subsidizing antenatal services and providing financial support for low-income pregnant women.

✓ Efforts should be intensified to expand health insurance coverage and increase awareness of available health insurance schemes among women of reproductive age.

✓ Social media platforms such as Facebook, WhatsApp, and TikTok should be utilized by health agencies to disseminate accurate and timely information on the importance of antenatal care.

✓ Community and religious leaders should be actively involved in health education programs aimed at addressing cultural beliefs and misconceptions that discourage antenatal care utilization.

✓ Government should improve the accessibility of health facilities, especially in underserved and rural communities, to reduce distance-related barriers to ANC attendance.

✓ Healthcare workers should provide continuous counseling and follow-up services to encourage pregnant women to complete the recommended number of antenatal visits.

✓ Socioeconomic empowerment programs for women should be promoted to improve their ability to access and utilize maternal healthcare services effectively.

✓ Further studies should be conducted in other healthcare facilities and communities within Jigawa State to identify additional determinants of antenatal care utilization and enhance the generalizability of findings.

Limitations of study

This study was limited to women of childbearing age attending antenatal clinic at Hadejia General Hospital, Jigawa State. The use of self-reported data may have exposed the study to recall and social desirability biases. In addition, the cross-sectional nature of the study limited the ability to establish causal relationships between the identified determinants and antenatal care utilization. Time and financial constraints also restricted the scope of the study. Furthermore, since only women attending the antenatal clinic were included, the findings may not fully reflect the experiences and determinants of antenatal care utilization among women who do not access antenatal services. Therefore, caution should be exercised in generalizing the findings beyond the study population

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