ACCEPTABILITY AND UTILISATION OF HEALTH CARE SERVICES AMONG PREGNANT WOMEN IN NORTH CENTRAL ZONE OF NIGERIA

BY

BRIDGET MBAFAN ANUM

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION
AHMADU BELLO UNIVERSITY,
ZARIA, NIGERIA

JULY, 2015

ACCEPTABILITY AND UTILISATION OF HEALTH CARE SERVICES AMONG PREGNANT WOMEN IN NORTH CENTRAL ZONE OF NIGERIA

BY

BRIDGET MBAFAN ANUM (DIP. B.SC.ABU)
M.ED/EDUC/11508/2010-2011

A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA,

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN HEALTH EDUCATION,

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION
AHMADU BELLO UNIVERSITY
ZARIA, NIGERIA

JULY, 2015

DECLARATION

I declare that the work entitled "**ACCEPTABILITY AND UTILISATION OF HEALTH CARE SERVICES AMONG PREGNANT WOMEN IN NORTH CENTRAL ZONE OF NIGERIA"** has been carried out by me in the Department of Physical and Health Education. The information derived from the literature has been duly acknowledged in the text and list of references provided. No part of this thesis was previously presented for another degree or diploma at this or any other university.

_____ _____

Bridget M. Anum **Date**

CERTIFICATION

This thesis entitled **"ACCEPTABILITY AND UTILISATION OF HEALTH CARE SERVICES AMONG PREGNANT WOMEN IN NORTH CENTRAL ZONE OF NIGERIA"**, by, Bridget Mbafan ANUM meets the regulations governing the award of Master Degree in Health Education of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentations.

_____ _____

Prof (Mrs) T.N. Ogwu — Date
Chairman, Supervisory Committee

_____ _____

Dr (Mrs). V. Dashe — Date
Member, Supervisory Committee

_____ _____

Prof T.N. Ogwu — Date
Head of Department

_____ _____

Prof A. Z. Hassan — Date
Dean, School of Postgraduate Studies

DEDICATION

I dedicate this work to God the Father, God the Son and God the Holy Spirit.

ACKNOWLEDGEMENTS

The researcher acknowledges the hand of God Almighty in this work. She registers her special and heartfelt gratitude to her esteemed supervisors, Prof. (Mrs.) T.N. Ogwu, Dr (Mrs.) V. Dashe who directed and encouraged her, through which this work came into existence. For any faults she takes responsibility. She is so grateful to the Department of Physical and Health Education, Ahmadu Bello University Zaria for making it possible for her to study here. She is indebted to all the lecturers and the administrative staff in the departm nt for their guidance throughout this study.

To her parents Captain T.I. Anum (Rtd) and Mrs. MaryMagdaline Martha Anum, her siblings Kennie, Dorathy, Edit, Robert, Sister Comfort-Mary, Thomas, Gloria Anum who are always concerned about her, sisters and brother in-laws, nephews and nieces.

Her greatest thanks goes to her Senior Pastor, Pastor Sarah Omakwu, her director Mrs. Maryjoy Omesiete, the principal Dr Mrs. Rifkatu Ogunbiyi, her head teacher and her angel Ms Mshelia Felicia and the entire Staff , students and pupils of Royal Family Academy. Mr. Godwin Itegie, Mr. Odeh the ministry secretary, the human resource manager, and priceless friends.

Her care group in Wuye, Mrs. Iember Amua and Dr Salamatu Jibrin who opened their homes to her she is forever indebted to them. She is also thankful to her foster father and mother for always being there for her God bless you. Furthermore, she is also thankful to her class mate whom without them she wouldn't have had a class to belong to. For all those who made one or two input to this work, she says thank you. May the Almighty God richly bless all of you. Amen.

ABSTRACT

The purpose of this study was to assess acceptability and utilization of health care services among pregnant women in north central zone of Nigeria. To achieve this purpose, 12 hospitals were randomly selected using multi-stage sampling technique (stratified, simple and purposive sampling techniques). Data was collected using close-ended questionnaire and 384 questionnaire copies were administered to pregnant women who attended antenatal clinics in the randomly selected hospitals, out of which 300 were duly completed and returned. Differences between educational qualification, age range and the acceptability and utilization of health care services were analysed and examined using descriptive statistics of means and standard deviation to answer the research questions and Analysis of Variance with alpha level of 0.05 to test the formulated hypotheses. The findings indicates that pregnant women of different educational qualification and age range do not differ significantly (F=.001) in the acceptability and utilization of healthcare services in north central zone of Nigeria. Based on the results of this study and its limitations, the following conclusions were drawn: Health care services were available to pregnant women in north central zone of Nigeria. Pregnant women of different educational qualification do not differ in the acceptability of health care services in north central zone of Nigeria. Pregnant women of different age range do not differ in the acceptability of health care services in north central zone of Nigeria. Pregnant women of different age range utilize health care services in the north central zone of Nigeria. On the basis of the conclusion drawn, the following recommendations are made to improve acceptability and utilization of health care services in north central zone of Nigeria. Development partners in conjunction with concerned government parastatals should set up a minority team charged with the responsibility to check and monitor periodically and provide updates for the activities of maternal health centres for improvement and possible updates on the acceptability and utilization of health centres.

TABLE OF CONTENTS

Cover Page **Page**

Title Page - - - - - - - - - ii

Declaration - - - - - - - - - iii

Certification - - - - - - - - - iv

Dedication - - - - - - - - - v

Acknowledgements - - - - - - - - - vi

Abstract - - - - - - - - - vii

Table of Contents. - - - - - - - - viii

List of Tables - - - - - - - - - ix

CHAPTER ONE:

1.0 INTRODUCTION - - - - - - - 1

1.1 Introduction - - - - - - - - - 4

1.2 Statement of the Problem - - - - - - 7

1.3 Research Questions - - - - - - - 8

1.4 Purpose of the Study - - - - - - - 8

1.5 Significance of the Study - - - - - - 8

1.6 Hypotheses - - - - - - - - 9

1.7 Basic Assumption - - - - - - - 9

1.8 Delimitation - - - - - - - - 10

1.9 Limitation - - - - - - - - 11

CHAPTER TWO

2.0 REVIEW OF RELATED LITERATURE - - - - 12

2.1 Introduction - - - - - - - - 12

2.2 Concept of Health Care Services in Nigeria - - - - 13

2.3 Acceptability of Health Care Services by Pregnant Women-- - 22

2.3.1 Age Determinant of Health Care Acceptability - - - - 26

2.3.2 Education a Determinant to Health Care and Acceptability -- - 27

2.4 Utilisation of Health Care Services by Pregnant Women- - - 28

2.5 Determinant of Utilization of Health Care Services - - - 29

2.6 Financial Cost as a Determinant of Health Care Utilisation- - - 31

2.7 Age Determinant of Health Care Services Utilisation: - - - 32

2.8 Education as a Determinant of Health Care Services Utilisation- - 33

2.9 Occupation and Health Care Services Utilisation - - - 34

2.10 Socio-Cultural Factors and Health Care Services Utilisation- - 35

2.11 Summary - - - - - - - - 38

CHAPTER THREE:

3.0 RESEARCH METHODOLOGY - - - - - 39

3.1 Introduction - - - - - - - - 39

3.2 Research Design - - - - - - - 39

3.3 Population of the Study - - - - - - 39

3.4 Sample and Sampling Technique - - - - - 40

3.5 Instrumentation - - - - - - - 42

3.6 Validation of the Instrument - - - - - - 42

3.7 Administration of the Instrument - - - - - 43

3.8 Statistical Technique - - - - - - - 43

CHAPTER FOUR

4.0	**DATA ANALYSIS AND DISCUSSION - - - -**	44
4.1	Introduction - - - - - - - -	44
4.2	Analysis of Demographic Variance - - - - -	44
4.3	Discussion - - - - - - - -	56

CHAPTER FIVE

5.0	**SUMMARY, CONCLUSION AND RECOMMENDATION -**	**62**
5.1	Summary - - - - - - - -	62
5.2	Conclusion - - - - - - - -	62
5.3	Recommendations - - - - - - -	63
5.4	Recommendations for Future Study - - - - -	64
	References - - - - - - - -	65
	Appendices - - - - - - - -	77

LIST OF TABLE

Table 3.1:	General Hospitals in North Central Zone of Nigeria and Population of Pregnant Women per Zone - -	40
Table 3.2:	Showing Sample Size for the Study - - - -	41
Table 4.1.	Distribution of Responses According to their Demographic Characteristics - - - - -	44
Table 4.2	Mean Response of Age Range and the Acceptability of Healthcare Services - - - - -	45
Table 4.3:	Mean Response of Age Range and the Utilisation of Healthcare Services - - - - - -	47
Table 4.4:	Mean Response of Educational Qualification and the Acceptability of Healthcare Services - - -	49
Table 4.5	Mean Response of Educational Qualification and the Utilisation of Healthcare Services - - - -	50
Table 4.6:	Mean Response of Utilisation and the Location of Pregnant Women in Accessing Healthcare Services - -	52
Table 4.2.1:	Analysis of Variance on the Difference Among Educational Qualifications for the Acceptability of Healthcare Services - - - - - -	53
Table 4.2.2:	Analysis of Variance on the Difference Among Age Range for the Acceptability of G Healthcare Services- -	53
Table 4.2.3:	Analysis of Variance on the Difference Among Educational Qualifications for the Utilisation of Healthcare Services - - - - - -	55
Table 4.2.4:	Analysis of Variance on the Difference Among Age Range For the Utilisation of Healthcare Services - -	56

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Maternal and prenatal health has emerged as the most important issue that determines global and national well being. This is because every individual, family and community is at some point intimately involved in pregnancy and the success of child birth, (World Health Organization 2006). Nigeria has one of the highest maternal mortality rates in the world, with more maternal deaths reported than any other country except India. Each year, as many as 60,000 Nigerian women die due to pregnancy-related complications, making up 10 percent of the world's maternal deaths, despite constituting only 2 percent of the world's population, (Kalimo, 2005). The WHO (1999) estimates Nigeria's maternal mortality ratio at 800 maternal deaths per 100,000 live births. Several factors in Nigeria including acceptability and utilization of health services have been identified as a cause of maternal and prenatal mortality.

Over the last 13 years, the Safe Motherhood Initiative (SMI) has raised global awareness of the magnitude of the problem of maternal and pre-natal mortality. Pregnancy complications are now widely recognized as the leading cause of death and disability in women of reproductive age (United State Agency for International Development, 1999). Each year, an estimated 585,000 maternal deaths and 7.6 million prenatal deaths occur worldwide with significant proportion in the poorest and least developed countries of sub-Sahara Africa and South East Asia, (WHO, 1999). In Nigeria, it has been estimated that 52,900 Nigerian women die from pregnancy related complications annually out of the total 529,000 global maternal deaths. In 2003, the World Health Organization and the Federal

Ministry of Health of Nigeria reports that about 145 women die everyday in Nigeria as a result of causes related to childbirth. In terms of absolute numbers, Nigeria ranks second globally to India in number of maternal deaths. The risk of a woman dying from child birth is 1 in 18 in Nigeria, compared to 1 in 61 for all developing countries, and 1 in 29,800 for Sweden, (Adamu and Salihu, 2002). As at 2008, the country maintains an estimated maternal mortality ratio of 545 per 100, 000 live births, (Nigeria Demographic Health Survey 2008), Nigeria still has one of the highest rates in the world. With the new 2008 NDHS information, about 4 maternal deaths occur in Nigeria per hour, 90 per day, and 2,800 per month totaling about 34,000 deaths annually with wide regional and local variations (Nigeria Demographic Health Survey, 2008).

In developed countries, utilization of antenatal care facilities has become a routine. Prevalence of utilization is approximately 100 percent, bringing the maternal mortality rate to a- significantly lower level of 0.3 percent per 1000 live births. In developing countries, maternal mortality has been little affected by modem maternity due to poor utilization of these services. In rural Nigeria, the prevalence of utilization is 15 percent. Factors influencing the utilization vary from locality to locality and within the same area, variation does occur but generally, illiteracy, poverty, cultural and religious beliefs and poor access have been identified as factors militating against utilization (Adamu and Salihu, 2002). The more educated a woman is, the greater the chances that she will seek antenatal care during pregnancy. And amongst those that utilize these services, the gestational age at booking is usually late to allow for a maximal benefit to be derived. The social attitudes of women towards antenatal care often hinder them from using the available services. Women reported that many aspects of antenatal care procedures were discomforting and

also objected to being attended to by several doctors. Studies also reveal that women wanted a reduction in the total number of visits made.

These preventable and unnecessary maternal deaths reflect a significant breakdown of basic services even as coverage and utilization of these interventions are correspondingly low, (Nwogu, 2009). This limited coverage of basic health services, which results from poor access to information and service lead to under utilization of services. In Nigeria, reports have shown that only 58 percent of women receive antenatal care from a health professional, with coverage levels ranging from 31 percent to 87° percent, and deliveries under the supervision of a trained birth attendant ranging from 9.8 percent to 81.8 percent, (FMOH/TJNFPA, 2002-2003). Data from the Nigerian Demographic and Health Surveys (NDHS) indicates that among pregnant Nigerian women, only 64 percent receive antenatal care from a qualified health care provider, (NDHS, 2003).

However, it appears that the health care system is unable to provide basic, cost-effective services for the prevention and management of common health problems (FMOH/UNFPA, 2002-2003). In a FMOH/UNFPA report, there are evidences that only about a quarter of health facilities had more than 50 percent of the minimum equipment package and 40 percent had less than a quarter.

The health of mothers should be improved upon in order to grow a healthy population which ultimately improves quality of health care and utilization of services. This study, therefore, sets out to assess the acceptability and utilization of health care services among pregnant women in North Central zone, of Nigeria with a view to proffering solutions for acceptability and utilization of maternal care.

1.2 Statement of the Problem

In line with World Health Organization guidelines (2006), the Ministry of Health (MOH) recommends that a woman having a normal pregnancy attends at least four antenatal care visits, International Conference on Population and Development (ICPD) in 1994 Views Reproductive Health in a broader Development context (United Nations. 1995). Under the safe motherhood initiative, all pregnant women are expected to receive basic antenatal care. The package includes monitoring pregnancies for signs of complications, treating concurrent problems of pregnancy, providing iron supplements, tetanus toxoid immunization and counseling on preventive care and related issues. The purposes of providing such services was to identify signs of, or risk factors for, complicated pregnancies and identify the appropriate health provider (Vanneste and others, 2000; Magadi, Madise and Rodrigues, 2000; Matthews and others, 2001). While such care plays a critical role in establishing trust between the pregnant woman and health services provider (WHO, 1996; Matthews and others, 2001), it was suggested that unnecessary antenatal visits should be lowered to reduce the cost of services (Villar and Bergsjo, 1997).

Implementation of the recommendations of ICPD Programme of Action, however, was not simple and easy in most developing countries. Researchers and Policymakers realized that the provision of expanded health services alone would not lead to increased utilization of antenatal care (Magadi, Madise and Rodrigues, 2000; Basu, 1990) as some women were more likely to use services than others, the other conditions remaining similar. Social structure and individual traits were found to have considerable influence in receiving antenatal health services (Matsumura and Gubhaju, 2001). Socio-economic

factors such as access to the basic services, education, employment and communication also influenced the use of antenatal care.

The provision of special care for women during pregnancy was a relatively late development in modem obstetrics. Not until the late 30s did the United Kingdom and Northern Ireland authorities decide that all women should be offered regular check ups during pregnancy as an integral part of maternity care, some 30 years after the introduction of formalized labour and delivery care. This development was stimulated by the realization that though maternal mortality rate due to obstructed labour, puerperal sepsis and hemorrhage had declined substantially during the early years of the 20th century, this was not the case for deaths associated with eclampsia and if these eclampsia related deaths were to be averted, interventions would be needed earlier during pregnancy.

However, less than half of women (47%) receive four or more visits for antenatal care. Furthermore, only 17 percent of pregnant women receive their first visit during the first three months of pregnancy. A high proportion of women (41%) make their first antenatal care visit during the fourth or fifth months of pregnancy, while 37 percent make their first visit during the sixth month of pregnancy or later. The median gestational age when women make their first visit is 5.5 months, when the opportunity may have passed to diagnose problems early, provide treatment, and prevent further complications (Macro International Inc., 2007).

According to WHO (2006), the annual global estimated death toll is close to 600,000 deaths and eight million cases of disability from pregnancy-related causes. Every year, millions of women particularly in the developing countries deliver babies without professional help. This trend is worst hit by women in the northern part of Nigeria (Walter

2001). According to Decoct and Fowler (2002), husbands and female relatives were responsible for conducting delivery of babies. Later, females outside the family who appear to have some socio-cultural and religious skills were engaged and were called traditional birth attendants. Though they have no formal training, some of them use magic, charms and incantations to drive away evil spirit of prolonged labour, many women in the process die during labour because mechanism of labour were not understood (Bartos & Walker, 2001).

In most communities today, according to Acharya and Anshu (2008), traditional birth attendants are recognised, accepted, utilised and provide primary health care services to majority of pregnant women. Although, traditional birth attendants help their communities during child birth and provide health advice, there are high mortality and morbidity rates due to unhealthy treatment of the reception of new born baby by the traditional birth attendants.

In a study by Adamu (2011), the proportion of women attending antenatal care in the northern zones is said to be lower than that in the southern zones. A wide disparity exists in the choice of personal decision across the six zones. About 70 percent of women in the South East and South-South delivered in a health institution, while the majority of women (about 60-90%) in all the three zones of the north delivered at home. A significant relationship was also found between region and trained assistance during delivery (χ^2=10254.359, df=10, p<.001). While approximately 76 percent of women in the South East and South South are assisted by skilled birth attendant during delivery, women in the northern zones are more likely to deliver in the presence of non-health personnel (about 47-67%) or no one at all (approximately 10-44%). Attendance of postnatal care is low

across all the six zones. The South-South and South-West record the highest proportion of respondents who have used postnatal care with approximately a third of respondents reporting use. All the other zones had less than 15 percent utilization. This shows that mothers in the southern zones are more likely to receive postnatal care than those in the northern regions. The glaring question is; why such a trend in the northern region of the country and north central in particular? This study therefore, aims to provide answers to the reasons that may deter pregnant women from receiving health care services in north central zone of Nigeria.

Therefore, unless the campaign for total acceptance and utilization of antenatal care and maternal health service in general is promoted with more vigorous enthusiasm, the benefits of scientific care will not reach beyond the enlightened minority and maternal mortality and morbidity would thus remain high in our environment.

1.3 Research Questions

On the basis of the statement of the problem, this study is predicated on answering the following specific research questions:

1. What is the difference in the acceptability of health care services among pregnant women of different educational qualification in north central zone of Nigeria?
2. What is the difference in the acceptability of health care services among pregnant women of different age range in north central zone of Nigeria?
3. Would pregnant women of different educational qualification differ in utilization of health care services in north central zone of Nigeria?
4. Would pregnant women of different age range differ in utilization of health care services in north central zone Nigeria?

1.4 Purpose of the Study

The main purpose of the study is to assess the acceptability and utilization of health care services among pregnant women in North Central Zone of Nigeria. The specific purposes of the study are:

1 to assess whether there is difference in acceptability of health care services among pregnant women of different educational qualification in north central zone of Nigeria;

2. to assess whether there is difference in the acceptability of health care services among pregnant women of different age range in north central zone of Nigeria;

3. to assess whether there is difference in the utilization of health care services among women of different educational qualification in north central zone of Nigeria; and

4 to assess whether there is difference in the utilization of health care services among pregnant women of different age range in north central zone of Nigeria.

1.5 Significance of the Study

The findings of this study would give an insight into areas where health education campaigns are required to influence and promote health care services. Specifically: Also, the findings of the study will be useful to the Ministry of Health (MOH) and other related Private Organizations, involved in improving maternal health care services specifically in the North central zone which in turn will foster designing appropriate strategies for women and in particular those residing within the north central of Nigeria. The findings of this study will provide information for planning of better health care services and provision of facilities and manpower to manage the centers adequately and efficiently, which could lead to reduced morbidity and mortality in the study area.

The study will contribute theoretical to the body of existing literature on acceptability and utilization of health care services and facilitate health development activities on health care centers in order to attain health for all. The study will provide necessary data for future health planning in Nigeria on health care centers as rendered in north central zone of Nigeria.

1.6 Hypotheses

On the basis of the research questions, the following hypotheses were formulated for the purpose of this study.

Major Hypothesis

There is no significant difference among the demographic variables (education and age range) of pregnant women in the acceptability and utilization of health care services in north central zone of Nigeria.

Sub-Hypotheses;

1.6.1 There is no significant difference among pregnant women of different educational qualification in acceptability of health care services in north central zone of Nigeria.

1.6.2 There is no significant difference among pregnant women of different age range in acceptability of health care services in north central zone of Nigeria.

1.6.3. There is no significant difference among pregnant women of different educational qualification in the utilization of health care services in north central zone of Nigeria.

1.6.4. There are no significant differences among pregnant women of different age range in the utilization of health care services in north central zone of Nigeria.

1.7 Basic Assumptions

On the basis of the research problem, the following assumptions were made.

1. Health care services are generally provided to render services for pregnant women by the government in Nigeria
2. Health care services for pregnant women in North central zone of Nigeria are acceptable.
3. Health care centers in Northern Nigeria are generally utilized by pregnant women.
4. Challenges associated with acceptability of health care system in Nigeria are surmountable.

1.8 Delimitation

This study was delimited to the following:

1. Acceptability and Utilization of health care services by pregnant women in North Central zone of Nigeria.
2. The research work is delimited to North Central geo-political zone of Nigeria.
3. Acceptability and utilization of health care services by pregnant women are measured on the basis of respondents' age and educational qualification.
4. Acceptability of health care services to pregnant women in North Central zone of Nigeria.
5. Utilization of health care services by pregnant women in North Central Zone of Nigeria.

1.9 Limitation

The findings of this research must be viewed in line with the limitations of the study. The study did not take into account pregnant women who were married and those that were unmarried, and this could influence their decision to accept and utilize health care services. Based on this, the researcher convinced pregnant women to provide accurate information on the type of health care services used, as this was not to witch hunt them but for mere academic purposes.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Every year millions of women particularly in the developing counties deliver babies without professional help. This is even worst in developing countries, such as Ghana, Cameroon, Benin, Cote d'voire, Caribbean (Puerto Rico, Jamaica, Trimidal and Tobago) and most specifically Nigeria. In the pre-history time, husband and female relative were responsible for conducting delivery of babies (Walter, 2001). Later a female outside the family who appear to have some socio-cultural and religious skills was engaged and were called traditional Birth attendants (Decoct and Fowler, 2000). Though they had no formal training, some of them use magic, charms and incantation to drive away evil spirit of prolonged labour, many women in the process die during labour because mechanisms of labour were not understood (Bartos and Walker, 2001).

However, in most communities today, according to Acharya and Anshu (2008) traditional birth attendants are recognized, accepted, utilized and provide primary health care services to majority of pregnant women. Although, the traditional birth attendants help their communities during child birth and provide health advice, there are high mortality and morbidity rate due to unhealthy treatment of the reception of new born baby by the traditional birth attendants.

The purpose of this study is therefore to assess the acceptability and utilization of health care services among pregnant women in North Central Nigeria. In order to achieve this, literatures were reviewed under the following sub-headings.

2.2 Concept of Health Care Services in Nigeria

2.3 Acceptability of Health Care Services by Pregnant Women

2.3.1 Age determinant of health care acceptability

2.3.2 Education a determinant to health care and acceptability

2.4 Utilisation of Health Care Services by Pregnant Women

2.5 Determinant of Utilization of Health Care Services

2.6 Financial Cost as a Determinant of Health Care Utilisation

2.7 Age Determinant of Health Care Services Utilisation:

2.8 Education as a Determinant of Health Care Services Utilisation

2.9 Occupation and Health Care Services Utilisation

2.10 Socio-Cultural Factors and Health Care Services Utilisation

2.2 Concept of Health Care Services in Nigeria

Nigeria National health Policy (NHP) was formulated in 1988 and revised in 2004 to bring about a comprehensive health care system based on primary health care that is protective, restorative and rehabilitative to every citizen of the country within the available resources so that individuals and communities are assured of social well-being and enjoyment of life. Despite this, health system in Nigeria still boils down with chronic problems, such as inappropriate budgetary allocation, poor infrastructure in the public health facilities, lack of drugs, uneven distribution of health facilities and lack of qualified medical personnel. This has resulted in the increase in the use of private health facilities which made the private sector provides 65.7 percent of health care delivery in Nigeria (UNICEF, 2001).

Presently, continued economic difficulties in Nigeria have undermined the public health system with the introduction of payment schemes based on the selling of essential drugs. This is one of the main elements of the Bamako initiative, according to which the income generated would ensure a reliable supply of drugs and would improve other aspects of the quality of the services rendered. Thus, quality improvements' would compensate for the financial barrier and as a result, the utilization of public health services would be increased or at least maintained. But this, has led to the rise in the "informal" private sector like the traditional medicine healers, itinerant drug peddlers and hawkers, mixed-trade dispensers, unlicensed patent medicine dealers and injection doctors. This sector, offer very low quality treatment (treatment without laboratory diagnosis, making wrong diagnosis, sale of drugs), it is a more important source of disease treatment and prevention for the poor. The frequent media advertisement of traditional medicine healers, who openly challenge the utility of western medicine, makes them very popular, especially among the poor.

Also, doctors in public services are allowed to operate private clinics. Some of these facilities are below standard (unregistered, poorly equipped, lack of diagnostic facilities, dirty premises, employing auxiliaries to work as registered nurses, dispensing medicines and irrational prescription). In Lagos state, the government has identified no fewer than 1,065 illegal health institutions found to be violating various health laws and constituting immeasurable health hazards to the citizenry (Nigeria vanguard, 2007). Most of these private health facilities are health traps and constitute bottle necks to mortality reduction in Nigeria. Looking at the growth in Nigeria, information on health seeking

behaviour and health care utilization has important policy implications in health systems development if there will be reduction in mortality in Nigeria.

Bunor (2004) in his study of health care utilization discovered that the dimensions of distance to services, such as travel time, waiting time, appointment time with doctors, and nature of the means of transports have effect on the utilization of health facilities. Poverty and illiteracy can also affect the use of health services. Most of the people may lack enabling resources, and because of high rate of illiteracy, they might not perceive the need for health service use, especially rural people, resulting in the use of unscientifically tested traditional medicine, some of which have negative health implications.

However, in Nigeria, Caldwell (1990) opines that educated women benefited more from available public health services than the uneducated mothers. Also in a study of child nutrition in Philippines, Barrera (1990) is of the opinion that access to healthcare services benefited children of educated mothers more than children of mothers with less schooling. In contrast, Rosenzweig and Schulz (1982) view female schooling and health-care services as partial substitute for information regarding knowledge of diseases, treatment of illness and children practices and hypothesize the effect of education on child health becomes less important as access to public health–care services improves. Salako (1995) adds that treatment sources that people seek when symptoms occur include, socio-cultural factors like beliefs and household decision making to seek care, social networks, gender and economic status. Social, political and economic factors also informed the choices as demonstrated in a study in rural Oyo state, Nigeria, it was found that 34% of Yoruba farm hamlet residents used a government clinic for a recent illness, compared with 21% of the

cattle herding Fulani living in the same area. In contrast, 37% of Fulani attended a private clinic compared with 24% of the Yoruba (Otusanya, 2001).

The geographical distribution of the health facilities may also influence the utilization of health clinics. In a comparison of the distribution of hospitals between urban and rural areas in Nigeria, it was found that whereas approximately 80 percent of population of the selected states lived in rural regions, only 42 percent of hospitals were located in those areas. The mal-distribution of physicians was even more marked because few trained doctors who had a choice wanted to live in rural area. Many of the doctors who did work in rural areas were there as part of their required service in the national youth service corps, established in 1973. Few, however, remained in remote areas beyond their required term (UNICEF, 2001). Okunribido et'al (1998) in their study show that the local interpretation of illness is a major influence in the treatment choice in Nigeria. They further enunciate that mother interpretation of the signs and symptoms of her child's disease will determine the health care choices. Available facilities will also determine the health care choices. It was found that in Nigeria, hospitals were divided into general wards, which provided both outpatient and inpatient care for a small fee, and amenity wards, which charged higher fees but provided better conditions. The general wards were usually very crowded, and there were long waits for registration as well as for treatment. Patients frequently did not see a doctor, but only a nurse or other practitioners.

Many types of drugs are not available at the hospital pharmacy; those that are available are usually dispensed without containers, meaning the patients had to provide their own. The in-patient wards are extremely crowded; beds are in corridors and even consisted of mattresses on floors (UNICEF, 2001). However, the success of any reforms in

provision and financing, and their ultimate health outcomes, are dependent on how price changes and alternative pricing systems affect the utilization of services among different population groups (Oxaal and Cook, 1998). Studies by Akin, (1985) found that prices charged by providers have an unimportant effect on the choice of provider and the amount of care consumed. Such evidence that prices are not important determinants of demand provides a justification for the widespread introduction of user fees. One explanation given for this finding is the idea that health care is valued as a commodity if it has price. When it is provided free of charge, it may be regarded as of inferior quality and not valued. Thus poor households may demand for more services if there are some prices attached. Secondly, price may not be the main constraint on utilization – even with free or low cost services; other factors prevent utilization such as indirect cost to transport, or the opportunity costs of time. Thirdly, perceptions about ill-health, and thus the perceived need for health care, may vary by income group with the poor less likely to seek care. These arguments raise the possibility that untargeted subsidies which lower the cost of health care disproportionately benefit higher income groups who use services more than the poor (Akin, 1986).

On the contrary, Hadded and Fournier (1995) reveal that introduction of users fees in the public sectors have made shift in the utilization of public services, increase the use of other treatment sources such as private health facilities, drug vendors and traditional healers as "the regular supply of drugs and the improvement in the technical quality of the services was not enough to compensate for the additional barrier created by the increased cost of services". Population Reference Bureau (PRB, 2007), explains that the cost of obstetrics care presents an important barrier to its use, it was further explained that all

countries that have reduced maternal deaths have offered free care. An evaluation of the government of Ghana's a delivery-fee exemption policy, instituted in 2003 to reduce financial barriers to delivery services shown an increased delivery in the public facilities between 10 percent and 20 percent in two districts, mirrored by a similar increase in skilled attendants at delivery (PRB, 2007).Despite the recent government efforts to redistribute health-care facilities and to improve the availability of preventive health care services, access and utilization has varied among the populace.

Complications during pregnancy and childbirth are unpredictable and often occur suddenly without warning. Thus, it is argued that the traditional use of antenatal care (ANC) to identify risk factors (e.g. age, parity, etc) associated with poor maternal outcomes has limited benefit since the risk factors do not directly cause the poor outcome (Acharya, 1995; Yuster, 1995). However, focused ANC has been found to offer the opportunity for early detection and timely treatment of diseases which improves maternal outcomes. For example, detection and treatment of high blood pressure, to prevent eclampsia, has been found to greatly reduce mortality (Acharya, 1995; McCaw-Binns et al, 2004). Similarly, improved maternal outcomes have been recorded through the detection and treatment of anaemia (Reynolds, Wong & Tucker, 2006).

Health care service improves the outcomes of health through detection, management, and referral for potential complications. Evidence from high income countries (HICs) suggests that adequate ANC may improve birth weight (Alexander and Korenbrot 1995; Reynolds, Wong et al. 2006). Antenatal care can also assist in the prevention, identification and treatment of iron deficiency anemia in adolescent mothers

(Brabin, Verhoeff et al. 1998). This is crucial as severe anemia is linked to maternal and child mortality (Stoltzfus 2001; Thato, Rachukul et al. 2007).

Antenatal Care: The purpose of ANC is to improve pregnancy outcomes for both the mother and the fetus. The aim of the first ANC visit is for health staff to establish rapport with the client and to collect information to evaluate the client's health status and preparedness for motherhood. Antenatal care from a trained provider is important to monitor the pregnancy and treat complications in pregnancy. According to the Nigeria Demographic and Health Survey (NDHS) (2006) results, 94 percent of women who gave birth in the five years preceding the survey received antenatal care (ANC) from a health professional at least once. Urban women are slightly more likely to receive ANC at least once than rural women (97 percent compared with 93 percent) (UBOS and Macro Org. 2007). The strength of maternal healthcare, therefore, lies in its role for early identification of complications; and also for providing information on danger signs and how to handle them (Yuster, 1995). Furthermore, opportunities for preventive health services, such as prophylactic treatment of malaria and immunization against neonatal tetanus (Babalola & Fatusi, 2009) are also provided through antenatal care (ANC). Antenatal care also makes it possible to screen for sexually transmitted diseases such as HIV infection, which is known to have taken its toll in much of the developing world. Counseling and education of pregnant women about their own health and that of their children is also an opportunity that can be incorporated into ANC.

The WHO (2003) recommends a minimum of four ANC visits for every pregnant woman. A greater number of visits, though not beneficial for low risk pregnancies, are recommended for women with higher risks of obstetric complications. However, the

capability of ANC in improving Maternal Health (MH) outcomes is greatly reduced in the absence of a viable health and referral system where women can receive emergency obstetric care when needed.

Skilled Birth Attendance: Skilled attendance is a term which encompasses the presence of professionals (midwives, doctors, nurses, etc) during delivery and also an enabling environment where the equipment, drugs and other supplies required for effective and efficient management of obstetric complications are available (UNFPA, 2000; Bell, Curtis &Alayon, 2003). Skilled Birth Attendants (SBA) are trained to recognize the signs of complications early enough to intervene and manage the situation or make quick referrals to higher levels of care. Available evidence suggests that the presence of SBAs during delivery dramatically reduces maternal mortality (UNFPA, 2000; Reynolds et al, 2004; Kruk et al, 2007; Mpembeni et al, 2007). This is illustrated by historical evidence from industrialized countries where maternal mortality was reduced by half following the introduction of professional midwifery care at birth, in the early 20th century. Improved access to hospitals after the Second World War further reduced maternal death rates, subsequently resulting in the impressive low levels currently recorded (De Brouwere et al, 1998; WHO, 2005).

Contemporary empirical research also supports the presence of skill birth attendants as a tool to improving maternal health. For example, in the 1950s and 1960s, studies show that maternal mortality ratios were reduced by half in Sri Lanka, Malaysia and Thailand within a 10-year period by increasing the number of midwives attending to births. Similarly, by doubling the proportion of births assisted by skilled professionals, Egypt reduced its maternal mortality ratio by 50% between 1983 and 2000 (WHO, 2008).

Skilled attendance during delivery can only be provided in the presence of functioning health systems (Bell, Curtis & Alayon, 2003) which include adequately trained and motivated workers, well equipped facilities, transportation and rapid referral systems. These are non-existent in the health systems of developing countries, which are grossly under-funded. It is, therefore, no surprise that women in these countries have limited access to SBAs and even less access to emergency obstetric care (WHO, 2005 cited in Kruk et al, 2007).

The presence of SBAs at all births is regarded as, probably, the single most critical intervention for reducing pregnancy-related deaths and disabilities (UNFPA, 2000; Bell, Curtis & Alayon, 2003; Mpembeni et al, 2007). For this reason, the proportion of births attended by a skilled health professional is currently being used as one of the indicators for monitoring progress in the achievement of MDG 5.

Postnatal Care (PNC): The postnatal period is the time from immediately after birth up to 40 days. It is important for mothers to receive care at this time as it has been recorded that more than 60% of maternal deaths take place during the postnatal period (Gill et al, 2007). The death of a mother further exposes her newborn child to high risks of morbidity and mortality. Thus, receiving PNC can make the difference between life and death for both mother and child. In developing countries, the most common causes of maternal deaths during the postpartum period are haemorrhage, infections and hypertensive disorders (Li et al, 1996 cited in Gill et al, 2007). Technically, all of these conditions are treatable. Through examination of the mother after childbirth, PNC can identify these conditions and any other life-threatening or debilitating conditions that may require urgent medical attention.

Several other important services and information can be provided during PNC. These include family planning services where information about child spacing and techniques to avoid unwanted pregnancies can be given. Other services and information, such as maternal and child nutrition, immunization, hygiene and sanitation, prevention of infections including HIV and other STIs (USAID, 2009); can all be provided during PNC. However, though the importance of these services are well known and are sometimes available in clinics, it is reported that less than 30% of women in developing countries access or receive care or medical follow-up in the period immediately following childbirth (Population Council, 2010).

2.3 Acceptability of Health Care Services by Pregnant Women

The concept of acceptability to health care according to Bertrand et al, (1995) refers to the presence or absence of barriers that people experience when using health services. These barriers may include physical barriers, such as the general supply and availability of health services and distance from health facilities as well as laws and policies which permit or prohibit use, community norms including knowledge of the services, cultural barriers or preferences, and economic barriers. Stressing the importance of access to health facilities, Awusi et al (2009) opine that indicators of access and acceptability of health care facilities to pregnant women are important, since at a very basic level, health services need to be available in order for women to be able to accept and use them. Early research, carried out during the world fertility surveys examined the impact of distance, time and mode of transport on antenatal use and found that distance acts both as a physical barrier and a disincentive to seeking care (Pullum, 1991).

According to Leslie and Gupta, (1989) there are two major components of acceptability namely physical and social. The latter refers to social customs or practices that may create barriers to the use of a health service even when it is physically accessible. For example, the Muslim and Hindu custom of purdah may prevent women from using a maternal care service operated by male functionaries or in some societies, a woman from a particular caste may perceive a maternal service as inaccessible if it is used by women from another caste. More frequently, however, the term "accessibility" has been used to refer to the physical and organizational dimensions of use.

There is substantial evidence from many countries across the globe that the distance that patients must travel in order to obtain treatment is a primary deterrent in the utilization of health care facilities in general and of maternal services, in particular, (Attah, 1986). Distance is one of the major reasons cited for the lack of success of formal health services in Nigeria. In a study of the determinants of home births in Northern Nigeria, Doctor (2010) observes that the household's distance from the maternity facility was one of two significant predictors of attendance, with considerations of cost. In another study from Nigeria, use of the health facility declined 'exponentially with distance. However, significant differences in the interaction between care seeking and distance were seen in association with other variables including perceived quality of care and severity of illness. The study found that hospitals and large health centres were able to attract patients from wider catchment areas than smaller facilities and that distance from the health facility was positively associated with duration and perceived severity of illness, (Stock, 1983). In a related study in Nigeria, reports reveal that government health centers seemed to be conveniently located; yet that proximity did not guarantee utilization, probably the

facilities understaffed and wider equipped and thus unable to provide quality care, (Awusi, et al, 2009).

A study by Stock (1983) in rural Nigeria reports that utilization of health facilities declined exponentially with distance, creating what the author called a distance decay effect. Several other factors such as means of transport, difficult terrain has influence the accessibility of health care facilities. Thus, reducing the distance to a health facility. This may not be sufficient to increase acceptability and thereby utilization, because often the unavailability of transportation, poor weather conditions and impassable terrain may make even short distances unmanageable. In a study in Imo, by Stock, (1983)more than one half of the rural women who intended to deliver in the district hospital eventually delivered at home because they could not get there once labour began. Even when local transportation is available, it may be an inconvenient mode of travel to use when a woman is in labour or has obstetric complications. A study in FCT, Abuja has shown that women and it health services access variables were compared among women using and not using maternal health care services and shows a marked difference between the two groups. Distance of place of residence from the services and time and cost involved in traveling to services were all highly significantly associated with non-use of the maternal healthcare services, UNFPA (2010).

According to a household survey in Nigeria by Bankole et al, (2009) the relationship between accessibility and utilization of health facilities, distance between health unit and place of residence has shown that utilization rates decline sharply with increasing distance traveled. The researcher further mentioned that it is often those at highest risk of adverse outcome who are least likely to have access to health services,

particularly preventive services. Attah (1986) vividly illustrated the tragic consequences of a lack of transportation in a rural community in Nigeria where a pregnant woman in need of emergency care died only because of the absence of any means to take her to the hospital. The Maternal and Neonatal Programme Effort Index (MNPI) in a study on the accessibility of health care services to pregnant women in the Northern Nigeria shows that 68.7% of our respondents blamed their lack of utilization of health services for delivery on long distance to the health facilities. Many pregnant women do not even attempt to reach a facility for delivery since walking many kilometres is difficult in labour and impossible if labour starts at night and transport means are often expensive as reported by 77.1% of our respondents. Those trying to reach a far-off facility fail and women with serious complications may die en route.

Another variable that has been reported to play an important mediating role in the subjective estimation of distance is the perceived quality of services. The Federal Ministry of Health Nigeria in a report integrating maternal, newborn and child health strategy, Abuja, (2007) laid credence to this as it identifies poor quality of service, poor transport network and facilities as factors that complicate easy access to health care facilities. It is estimated that approximately 71% of Nigerians have access to a PHC, primary health care facility located within a *5* km radius of their home. However, many of these PHC centres are not functional due to frequent stock-outs, a lack of equipment, essential supplies and qualified staff, Ibid.

It has been, reported that people are more willing to travel farther for more specialized services for better quality services, (Stock 1983). Data from rural Nigeria shows that people readily travel longer distances to reach a hospital or rural health clinic

rather than a local government dispensary, because the latter is perceived as being lower quality and more likely to be short of supplies and equipment, (Stock 1983). Peripheral facilities frequently lack the basic essentials of service. A shortage of drugs and other supplies, the limited availability of health personnel, and long waiting times are all experiences that patients expect from a visit to such a facility.

2.3.1 Age Determinant of Health Care Acceptability

The acceptability of health service is to the degree to which it is culturally appropriate for the target patient base. Acceptable health services operate from a position of cultural sensitivity and respect, and allow the clients' cultural practices to be maintained. Cultural acceptability is an important determinant of indigenous people's use of needed health services (ATS1SJC 2009b; Scrimgeour & Scrirngeour 2008).

A study from the biology and medical research Confirms findings In other studies that higher parity women are less likely to attend antenatal care (Glei etUr2003; Lambo, 2003). Women aged 20-24 were shown to receive antenatal care more than older groups although this difference was not statistically significant. This could be due to the fact that there are no major differences between women aged 14-17 and 20-24. Women with 1 to 3 children receive antenatal care more than those with high parity 4-7 children. This advantage could be due to the support married women receive from husbands, and the health delivery system that tends to favor younger married women than older married women (Simkhada et al, 2008). Our findings reveal that 44,2% of the young women use skilled professional assistance at hospital during delivery as against 32,1% of older women. This finding supports those of several studies which confirmed that younger women beginning child bearing tend to fear home deliveries as they consider themselves a high

risk group- As *a* result, such young women seek professional assistance from skilled professionals in hospitals (Filippi et al 2009; Roost et a!, 2004), Considering the higher risks young women face during pregnancy and childbirth, the results of this study can not be interpreted to mean that young women are better users of skilled professional assistance (Williams, 1995), it is estimated that maternal deaths during birth are 2-4 times higher among young women, and babies born to them have a higher risk of death during the neonatal period due to low birth weight, compared to older women (Adetoro et'al 2007; Adamu and Salihu, 2002).

2.3.2 Education a Determinant to Health Care and Acceptability

Women with formal education seem to receive antenatal care services more than those without education. The first possible explanation is the fact that the proportion of women with no education is low compared to that of women with formal education. Less education is associated with increased chances of early marriage, which is likely to provide access to health care services geared towards married women. In their study, Ujah et al, (2004) found that women with less education have a reduced risk of neonatal mortality due to benefits associated with family formations. The effect of residence was evident with urban women receiving ANC more compared to women from rural areas. This residence advantage could be due to traditional beliefs and cultural practices specific to the different groups making urban women assumed that they benefit from the flow of information *on* the benefits of ANC (Ejembi et al, 2004; Galadanci et al, 2011).

2.4 Utilisation of Health Care Services by Pregnant Women

Antenatal care has been found to reduce maternal morbidity and mortality directly through detection and treatment of pregnancy related or inter current illness or indirectly

through detection of women at increased risk of complication of delivery and ensuring that they deliver in a suitable equipped facility, Bankole et al (2009). In addition to lack of sufficient maternity care services; low utilization of those services that are available to pregnant women in developing countries has been recognized as a problem. Recent studies indicate that less than one-third of women in developing countries receive ANC and only about 20% of births occur under the supervision of trained attendants, Bankole et al (2009). According to FMOH/UNFPA study on essential obstetric care in Nigeria, (2002-2003) the capacity to provide basic emergency obstetric services is very limited as only 20% of facilities are able to provide this service. This limited coverage of basic health services, which results from poor access to information and services results in under utilization of services.

In Nigeria, several studies have found the utilization of ANC to be characterized by low coverage, inadequate content, inadequate personnel, poor technical skills among personnel and low utilization of effective interventions, Awusi et al (2009), Nwogu, (2009). A Report by the Safe Motherhood Project, Nigeria (2009) indicates that these have exposed mothers to adverse pregnancy outcomes and eventual deaths. In a study on the use of antenatal services and delivery care among women in Northern Nigeria, only 24.7% had visited a clinic or facility for ANC at least once during their most recent pregnancy, with 4.9 as the mean number of antenatal visits during pregnancy. One or two visits only were made by 33 (7.5%) and 63 (14.3%) of the women, respectively. Among those who could recall when they first attended, 110 women (25.9%) started ANC visits in the first trimester, 272 women (6 1.7%) started in the second trimester, and *58* women (13.2%) in the third trimester (Saving Newborn Lives in Nigeria Report, 2011).

Similarly, a report titled Reproductive Health Knowledge and Practices in Northern Nigeria: challenges and misconceptions (2010) indicates that, the proportion of women who gave birth in a health facility is lower than the national estimate of 35.0%for Nigeria, slightly higher by one percentage. In general, deliveries at health facilities are lower in the study area and Nigeria in particular compared with other West Africa countries such as Senegal (61.8%; 2005 DHS), Mali (45.1%; 2006 DHS) and Cameroon (59.0%; 2004 DHS) (Measure DHS STAT compiler 2009) in Doctor et al (2007). In a 2003 study, reports show that only a small percentage (4.2 percent) of Nigerian health facilities meet internationally accepted standards for essential obstetric care. Approximately two-thirds of Nigerian women deliver outside of health facilities and without medically skilled attendants, (UNFPA Nigeria country office, 2010).

2.5 Determinant of Utilization of Health Care Services

The utilization of maternal health services is largely determined by its availability. The benefits of maternal health services are not due to the care per se but rather to the social, demographic and medical services. Indeed, socially disadvantaged women are less likely to seek antenatal care and also have more pregnancy complications than women of higher social status.

i. Availability of the services: The utilization of maternal health services is largely influenced by the available services. Availability of the services will make the woman to utilize them properly and effectively.

ii. Education: Education is the single most important factor that will improve utilization of maternal health services. A study in 1974 in Zaria confirms that women in the study who received formal education, 90 per cent or more also

received antenatal care regardless of their place of residence, religion or ethnic group 35. Formal education has influence on the number of previous births and their survival. When compared with women without formal education, those with formal education bear fewer children on the average (utilization of family planning services) and they achieved better child survival strategy (utilization of natal and postnatal services). The level of maternal education was also important. The number of previous pregnancies, total birth per woman and the child mortality rate both decline sharply with rising educational attainment.

iii. Socio-economic status:- Women from low socio-economic class do not usually utilize maternal health services. The reason for this includes the poor income of their husbands and predominance of having many children (multiparity) and hence, over confident. This means that multiparous women usually have the believe that they have undergone several child births and therefore, they are experienced and need no antenatal care or any other maternal care.

iv. Cultural attitudes:- Religion and ethnicity determine the cultural belief of people. Because of purdah and absolute powers of husbands over their wives in Hausa-Fulani Muslims societies, women may not be allowed to attend antenatal clinic even after knowing its importance. For example, a study in Zaria with women without formal education indicates that it was only among the Christians and other Nigerians from Hausa-Fulani that as many as 90% had antenatal care. With regard to family planning, Islamic religion has allowed polygamy and prohibits limitation of family size.

2.6 Financial Cost as a Determinant of Health Care Utilisation

Another important factor affecting utilization of maternal care services is cost. This includes the cost of getting to the medical installation, the cost to use the service, and the cost for any medicines or other complements required for treatment, Jimalo, (2008). The monetary expenditure on transportation, fees for medical services, and the cost of drugs and other complements have been found to have complex and sometimes unexpected effects on demand for services. In some developing countries, any money spent on travel to a medical facility is a small part of the total real cost (i.e. cash price plus time costs) of transportation because, in such countries, most transportation to health services is by foot or on bicycle. Data from Calabar, Nigeria, indicates that over 60 percent of all patients walked to receive health care, Gesler (1979) in Jimalo, (2008). On the other hand, in reports from other countries, the high monetary cost of transportation is singled out as a major obstacle to the utilization of health services (Attah 1986). The effect of the monetary cost of the service itself on utilization is even more complex than the cost of transportation. Some studies have reported exactly such an effect. A study from Nigeria reports the devastating effects of fee increases on the utilization of a public sector health facility that had previously been free, (Attah 1986).

Reports from a wide range of developing countries also indicate that medical services in public primary health care facilities are only theoretically free. In practice, widespread corruption and bribery among the health service personnel makes the cost of such services much more expensive than they appear to be. Studies from Nigeria found that health personnel had demanded unofficial payment for “free” services, Attah (1986). Using the focus group technique, one study on public sector health facilities in Imo State

of Nigeria reveal that such "surcharges" during pregnancy were perceived by the consumers as being insurance for adequate care during labour, (Attah, 1986). Incidents in which surgeons actually hold patients to ransom before operating have been reported from Nigeria, Attah (1986). Such unofficial fees have been shown to deter utilization of maternal care services particularly when the amount of money spent far exceeds the fees legitimately charged by private practitioners or traditional midwives. Corruption associated with the management of drug supplies has also been reported in. one study from Nigeria as being the cause for disillusionment among the patients. In a focus group discussion, the clients reported that they had purchased drugs from the open market which had the government stamp on them, Attah (1986). Apparently then, drug supplies were being diverted and sold by health personnel. The clients also complained that they had been referred to private clinics for laboratory tests that could have been done at the public facility. Such corrupt practices were cited as reasons for the underutilization of the public health facility.

2.7 Age Determinant of Health Care Services Utilisation

Age and parity, though distinct, are almost impossible to discuss separately because, for an individual woman higher parity is inevitably associated with increasing age, (Jimalo, 2008). Data from studies on Yoruba women of Ogun state of Nigeria shows proportionately fewer older than younger women delivered their children in a hospital, (Taylor, 1984). Attitudinal differences have sometimes been cited to explain the higher utilization of health services by young, primiparae women as compared to older, multiparae women. It has been suggested that older women tend to feel a sense of

confidence because of their past experience with pregnancy and childbirth, (Kwast et al, 1984).

2.8 Education as a Determinant of Health Care Services Utilisation

There is abundant evidence to indicate that higher education levels among women are strongly associated with greater use of formal maternal health services. In a study, based on a sample of Nigerian women from Ogun state, results revealed that the women who delivered in hospitals were better educated and held higher status jobs than the women who delivered elsewhere. Even four years of primary school education seemed to increase the probability of women using hospital services for childbirth. In an overall review of the impact of education on demand for primary health care, Akin et al. (1985)argued that more highly educated families tend to have acquired a scientific, Western knowledge of disease, symptoms, and the importance of immunization and are therefore, more willing to accept the use of medical services. They illustrate this with data from the Philippines on different kinds of treatment sought for a sick child. They found that least educated mothers relied on self treatment in 45percent of the cases. This percentage declined to 30 percent. The most highly educated mothers. In contrast, the mothers with the highest education used private practitioners in over 50 percent of the cases, while the least educated chose this kind of treatment only 25 percent of the time.

Maternal education also changes the traditional balance of power within the family, shifting the focus away from the patriarch and the mother-in-law to the mother Caldwell (1985). The Nigeria Demographic and Health Survey 2008 report that only 10% of deliveries to mothers with no education occurred in health facilities compared to 90% of deliveries to mothers with education. This further emphasizes the importance of education

in decision making. Educated mothers are more likely to take advantage of public health-care services than others.

Safe Motherhood Project, Nigeria Final Report (2007) results also reveal the important finding that among women with less than a secondary school education, health facility deliveries were significantly higher in Gwoza compared to the control group. Seventy-two percent of women in Gwoza delivered their last child (within the life of the project) in a health facility versus 40 percent in the control community. Among women who had completed secondary school or higher, results were 85 percent in Gwoza and 75 percent in the control community. Awusi, et al in a study on the determinants of antenatal care services utilization in Emevor village observe that higher educational attainment of both the women and their husbands had a positive influence on the utilization of ANC services in the studied population. In this study, 96% and 81%, respectively, of the women and those whose husbands had postsecondary education utilized the services. Conversely, 77% and 73% of women and those whose husbands had no formal education, respectively, did not utilize ANC services during pregnancy.

2.9 Occupation and Health Care Services Utilisation

Despite the complex nature of family income and the dynamics of its distribution within the family, as well as its inter-correlation with variables such as education, place of residence, and occupation, it has been found to influence utilization of health services, (Jimalo,2008). A study from Ethiopia that directly examined the relationship of income on utilization patterns concluded that, as income increased, the use of formal health services for prenatal care and childbirth increased significantly, (Kwast et al. 1984). The level of income also has an impact on utilization because of the intervening effect of time costs.

Women from low income groups are known to have the least access to the necessities for survival (i.e. fuel, food, and water) and, therefore, have to spend proportionately more time than women from higher income groups to procure them. Jelley and Madeley (1983) argue that, therefore, their use of maternal care services is likely to be low because it threatens the family's survival by encroaching on the time available to carry out these basic tasks.

2.10 Socio-Cultural Factors and Health Care Services Utilisation

Another important factor in the utilization of maternal health and nutrition services is the socio-cultural background of the user, which determines the beliefs, attitudes, and perceptions she has concerning the service being offered, (Jirnalo, 2008). In Africa, for example, There is usually an entire indigenous system of health care in place which, with varying degrees of adequacy, tends to the needs of women during pregnancy and childbirth, as well as a set of practices and beliefs associated with pregnancy and childbirth that have nothing to do with medicine or health care, (Lynn Miller,2005). Hence, a new source of maternal care might be seen to be in direct competition with the existing system of beliefs and care. Whether or not the new service is used often depends on the subjective judgement of the user as to the appropriateness of that service vis-a-vis the existing indigenous maternal care system.

The extent to which the formal health service is congruent, or not in sharp conflict with some of the more fundamental indigenous tenets of health care, is one important determinant of its acceptability. A service that ignores the local health care system is likely to shut out its potential users from the very outset even when it meets objective medical standards of excellent service. The important elements, therefore, are flexibility and acceptance. A formal service that is respectful of the role played by traditional systems of

health care and one that is flexible enough to incorporate medically harmless beliefs and practices from that system is most likely to succeed in winning the acceptance of the community.

Beliefs concerning appropriate female behavior or the appropriate stage at which to publicly announce pregnancy may also prove to be a barrier to utilization of routine maternal care services. In Muslim communities, he practice of "purdah" which keeps the woman in seclusion from strange men, prevents women from using any prenatal, childbirth, or postnatal services of a facility run by male personnel, (Claquin, 1981).

Quality of care is an important consideration in the decision to seek care, (Dairo et al 2009). According to Dairo and Owoyokun (2009), the role that quality of health care plays in the decision to seek care is related to people's own assessment of service delivery which largely depends on their own experiences with the health system and those of people they know. The two mechanisms through which quality of care affects the decision to seek care are satisfaction or dissatisfaction with the outcome for example, the effectiveness of the treatment and remedies prescribed and satisfaction or dissatisfaction with the service received. Others include staff attitude, long waiting time, hospital procedure and availability of supplies, efficiency, ibid. These factors will act as inhibitors of future utilization, thus affecting the decision to seek care. As several studies across Nigeria indicate, health service barriers and women's perception of quality of ANC were important factors affecting women's attendance during pregnancy, Bankole, et al (2011), Oguntunde et al, (2010), Dairo and Owoyokun (2010).

Many studies found that there is a strong correlation between skilled care attendance at delivery and lower levels of maternal mortality. Similar studies have found

that quality care during pregnancy, delivery and postnatal period can positively improve the health of the mother and infant, Bankole, et al (2011). Moore et al (2011) opine that perceived quality of care in a health facility will influence the level of utilization of that facility by pregnant women. This perceived quality of care comprise the quality of the medical care and people's own experience and the experience of the people they know with the health facility.

In a study on factors affecting the utilization of antenatal care services in Ibadan, Nigerian many respondents blamed their lack of utilization of health facility for childbirth on unsatisfactory services at the health facility (54.2%),unfriendly attitude of staff at the health facility (70.8%), unavailability of staff at the health facility (64.0%) long waiting time (75%). Previous experience with childbirth in a health facility has also been reported to determine whether that facility will be utilized for further delivery services, (Moore et al, 2011:865). In the same study, 66.7% of the respondents blamed their lack of utilization of health facility for childbirth on their previous uneventful delivery in health facilities. This corroborates the report by Awusi et al, in a study on the determinants of antenatal care services utilization in Emevor village, Nigeria which observes that women in Emevor community do not adequately utilize ANC services during pregnancy at least within the past 5 years preceding the survey. The non utilization rate of 43%, found in this study, was very high when compared to the less than 5% reported for industrialized countries, Awusi et al (2010).

According to NDHS (2003), only about 37% of deliveries in Nigeria take place in health institutions, while 57% of deliveries take place at home. The data from the Nigerian Demographic and Health Surveys indicates that among pregnant Nigerian women, only

64% receive antenatal care from a qualified health care provider. There are wide regional variations, with only about 28% of women in the Northwest Zone and 54% in the Northeast Zone receiving antenatal care from trained health providers. The rest either do not receive antenatal care at all or receive care from untrained traditional birth attendants, herbalists or religious diviners.

Health-care utilization is strongly influenced by the characteristics of the illness as perceived by the individual, (Lynn, Miller, 2005). The perceived severity and etiology of the disorder will shape the decision to seek care, ibid. Many other factors must be favorable for an individual to use a health services. In Jamaica, for instance, while most women surveyed were able to name obstetric complications, they had experienced themselves, fewer than 10%, identified any other specific risk, danger or problem of pregnancy and previous pregnancies or births attached greater importance to the availability of medical back up than those who had uncomplicated births. Other studies in developing countries show that not only do women's knowledge of risks affect the use of ANC, but also do their knowledge of the severity of risks and their feeling of susceptibility to those risks. In India, it has been demonstrated that lack of recognition of health problems were significant reasons for not seeking out health care, which account for half of maternal deaths.

2.11 Summary

The literature was reviewed with the following sub-headings; Concept of Health Care Services in Nigeria; Acceptability of Health Care Services by Pregnant Women; Age determinant of health care acceptability; Education a determinant to health care and acceptability; Utilisation of Health Care Services by Pregnant Women; Determinant of

Utilization of Health Care Services; Financial Cost as a Determinant of Health Care Utilisation; Age Determinant of Health Care Services Utilisation; Education as a Determinant of Health Care Services Utilisation; Occupation and Health Care Services Utilisation; Socio-Cultural Factors and Health Care Services Utilisation.

The importance of maternal care cannot be overemphasized it is therefore important that pregnant women accept and utilized health care services provided by health centers.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The study examines the acceptability and utilization of health care services among pregnant women in North Central Zone of Nigeria. The research design, population, sample and sampling techniques, the instrumentation, data collection and statistical techniques used to achieve this purpose are described in this Chapter.

3.2 Research Design

As the information needed for this study already existed with the respondents, ex-post facto research design was used for this study. Kerlinger (1986), opines that this method is the best tool to use in descriptive research involving current event or conditions. In this design, opinions of the respondents on acceptability and utilization of health care services were sought.

3.3 Population of the Study

The population of this study comprises of all pregnant women attending the general hospitals in North Central Zone of Nigeria. The population of pregnant women was estimated at 33,400 (Federal Ministry of Health, 2013).

Table 3.1: General Hospitals in North Central Zone of Nigeria and Population of Pregnant Women per Zone

S/n	State	General Hospital	No of Pregnant women
1	Niger	Agaie, Agwara, Bida, Borgu, Bosso, Chanchaga, Edati, Gbako, Gurara, Katcha, Kontagora, Lapai, Lavun, Magama, Mariga, Mashegu, Mokwa, Munya, Paikoro, Rafi, Rijau, Shiroro, Suleja, Tafa, Wushishi.	4,900
2	Kogi	Adavi, Ajaokuta, Ankpa, Bassa, Dekina, Ibaji, Idah, Igalamela-Odolu, Ijumu, Kabba/Bunu, Kogi, Lokoja, Mopa-Muro, Ofu, Ogeri/Magongo, Okehi, Okene, Olamaboro, Omala, Yagb-East, Yagba-West	4,600
3	Plateau	Barkin Ladi, Bassa, Bokkos, Jos North, Jos South, Kanm, Kanke, Lantang North, Lantang South, Mangu, Mikang, Pankshin, Qua'an Pan, Riyom, Shendam, Wase	5,800
4	Nasarawa	Akwanga, Awe, Doma, Karu, Keena, Keffi, Kokona, Lafia, Nasarawa, Nasarawa Egon, Obi, Toto, Wamba	3,700
5	Benue	Ado, Agatu, Apa, Buruku, Gboko, Guma, Gwer East, Gwer West, Katsina-Ala, Konshisha, Kwande, Logo, Makurdi, Obi, Ogbadibo, Oju, Okpokwu, Ohimini, Otukpo, Tarka, Ukum, Ushongo, Vandeikya	5,600
6	Kwara	Asa, Baruten, Edu, Ekiti, Ifelodun, Ilorin East, Ilorin West, Irepodun, Isin, Kaiama, Moro, Offa, Oke-Ero, Oyun, Pategi	4,600
7	Abuja	Abaji, Abuja Municipal, Bwari, Gwagwalada, Kuje, Kwali	3,600

Source: FMOH, 2013

3.4 Sample and Sampling Technique

North Central Zone of Nigeria comprised of seven (7) states viz; Benue, Kwara, Kogi, Niger, Plateau, Nasarawa and the Federal Capital Territory. The 7 states were therefore, stratified into 3 groups, 1, 2 and 3. Group 1 had 44 hospitals, while group 2 and 3 had 41 and 36 respectively. A simple random sampling technique was employed to select one state each from group 2 and 3, except for group 1 which 2 states were selected because it had more number of states. Consequently, 4 states were randomly selected and used for the study.

To select the number of general hospitals per group, Murkhejee (1975), Nworgu (1991), Bello and Ajayi (2000) suggest ten percent (10%) of the sample size of the population. Therefore, 4.4 was drawn as ten percent of 44 general hospitals, while 4.1 and 3.6 were also drawn as ten percent of 41 and 36 general hospitals. Therefore, 4 hospitals were selected to represent each of the 3 groups. Consequently, a total of 12 hospitals were selected and used for the study.

To select the sample size for the study, Krejcie and Morgan (1970) suggest that in a population of 33,400, 380 is the ideal sample size to be used. Therefore, the study considered 384 as the sample size for the study according to the suggestions of Krejcie and Morgan (1970). Pregnant women attending any one of the 12 randomly selected hospitals were purposively selected for the study. According to the number, 384 pregnant women were selected for the study, 32 questionnaire copies were considered appropriate per hospital for even distribution of the questionnaire.

Table 3.2: Showing Sample Size for the Study

S/N	Group	States	No of Local Government/General Hospital.	10% of Sampled Hospitals per Stratum	No of Sampled Hospitals per Stratum	Sample Size for the Population of 33,400 Subjects according to Krejcie & Morgan (1970)	No of Respondents per Hospital
1	Group 1	Benue/ Kogi	44	4.4	4	384	32
	Group 2	Niger/ Kwara	41	4.1	4		
3	Group 3	Plateau/ Nasaraw/ Abuja	36	3.6	4		
4	**Total**		**121**		**12**		

Source: FMH, (2013)

3.5 Instrumentation

Data was collected using self-developed questionnaire. The questionnaire consists of three sections, A, B and C with a total of 18 items. Section A consist of three (3) items on demographic characteristics of respondents while other Sections consist of five (5) items each. Section B consist of items on acceptability of health care services. Section C contain items on utilization of health care services. A modified four points likert scale was adopted for the study.

3.6 Validation of the Instrument

To ascertain the face and content validity of the questionnaire, the prepared questionnaire was distributed to four experts within and outside the Department of Physical and Health Education, Ahmadu Bello University Zaria. They served as jurors for vetting and ascertaining the face and content validity of the instrument. The corrections were implemented and a final copy was produced and used for data collection.

3.7 Administration of the Instrument

Before the questionnaire was distributed, eligible pregnant women were given explanations concerning the study and how the questionnaire is to be filled by the respondents, and upon verbal consent to participate. The prepared questionnaire copies were distributed by the researcher, two trained research assistants and three trained nurses on duty were used for the administration of the questionnaire. A total of 380 questionnaires were administered. The researcher with her two trained research assistants visited each of the randomly selected hospital on a scheduled date. 32 questionnaires were administered to each of the 12 randomly selected for completion by the respondents.

Instructions were given on how to complete the questionnaire. Upon completion, the researcher retrieved same on the day of administration.

3.8 Statistical Technique

Descriptive statistics of means and standard deviation were used to answer the research questions. Analysis of Variance (ANOVA) was employed to test the differences in age range and educational qualification in the acceptability and utilization of health care services among pregnant women in north central zone of Nigeria.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This research work was investigated to assess acceptability and utilization of health care services by pregnant women in north central geo-political zone of Nigeria. The data for this study was obtained through the use of questionnaire which were administered to the respondents. Out of 380 questionnaires administered to the respondents, 300 were duly completed and returned for analysis using the statistical package of the social sciences version 17.

4.2 Analysis of Demographic Variance

Table 4.1. Distribution of Responses According to their Demographic Characteristics

Characteristics		Frequency (N)	Percentage (%)
Age			
15-19 yrs		47	15.67
20-24 yrs		127	42.33
25-29 yrs		48	16.00
30-34 yrs		62	20.67
35 yrs and Above		16	5.33
	Total	**300**	**100**
Educational Status			
Primary		63	21.00
Secondary		126	42.00
Tertiary		79	26.33
Non-formal		32	10.67
Education	**Total**	**300**	**100**
Location			
Rural		142	47.33
Urban		158	53.67
	Total	**300**	**100**

Observation of Table 4.1 shows that majority (127; 42.3%) of pregnant women who attended antenatal clinics in north central zone of Nigeria were between 20-24 years. While a sizeable number (62;20.6%) were 30-34years old. Some (48;16%) and other (47;15.6%) of the pregnant women who attended antenatal clinics in north central were 25-29 and 15-19years respectively. Only few (16;5.3%) pregnant women who attended antenatal clinics were 35years and above. The Table further reveals that majority (126;42%) of the pregnant women that attended antenatal clinics were educated at secondary school level, while some (70;26.3%) had their education beyond secondary school level. A considerable number (63; 21%) had only primary education. However, a tangible number (32; 10.6%) of pregnant women who attended antenatal clinics did not have formal education. A closer look at the Table further reveals that most (158; 53.6%) of the pregnant women who attended antenatal clinic were from urban areas. However, some (142; 47.3%) were from rural settlements.

Table 4.2: Mean Scores Responses on Age Range and the Acceptability of Healthcare Services

S/N	Acceptability Variables	Age					
		15-19 yrs (Mean±HSD)	20-24 yrs (Mean±SD)	25-29 yrs (Mean±SD)	30-34 yrs (Mean±SD)	≥35 yrs (Mean±SD)	
1	I prefer using Health care Services because my Husband prefers it.	1.34±0.07	2.13±0.05	2.33±0.07	4.33±0.00	2.53±0.14	0.025
2	I prefer Health care services because the personnel are knowledgeable in pregnancy management because of their experience in child delivery.	1.34±0.07	2.25±0.09	4.00±0.12	2.00±0.06	3.26±0.11	0.037
3	I prefer Health care services because it is able to examine the state of my pregnancy.	2.29±0.18	2.50±0.06	1.67±0.14	3.60±0.02	1.76±0.11	0.041
4	I like Health care service because it is safer for me and my baby	1.34±0.07	2.38±0.08	2.00±0.21	2.30±0.02	2.02±0.09	0.052
5	I prefer Health care services because they provide me with other delivery services.	2.29±0.18	2.62±0.09	2.33±0.18	2.00±0.00	1.98±0.09	0.039
	Aggregate Mean	**1.72±0.05**	**2.38±0.19**	**2.47±0.90**	**2.85±0.06**	**2.31±0.36**	**0.025**

Decision Mean = 2.00

Table 4.2 reveals that majority ($\bar{x}$=4.33) of the women within age range of 30-34 years preferred using health care services because their husbands preferred it compared to pregnant women within 35 years and above with mean response of 2.53. While pregnant women within age range of 25-29years had mean response of 2.13 and 1.34 with women within 15-19 years. Many ($\bar{x}$=4.00) of the pregnant women within 25-29 years were endeared to using health care because the personnel were knowledgeable in pregnancy management compared to women within 35 years and above with mean response of 3.26. While pregnant women within 20-24 years old had mean response of 2.25 and 2.00 within age range of 30-34 years, with few ($\bar{x}$=1.34) within 15-19 years. Examination of the state of women's pregnancy was highly ($\bar{x}$=3.60) observed among women within 30-34 years compared to women within 20-24 years with mean response of 2.50. Whereas women within 15-19 years accepted health care services with mean response of 2.29 and 1.76 mean response for women within 35 years and above.

However, few ($\bar{x}$=1.67) within the age range of 25-29 years accepted health care services. Many ($\bar{x}$=2.38) pregnant women within the age range of 30-34 years and 2.02 mean response within 35 years and above. While pregnant women within 25-29 years had mean response of 2.00 and 1.38 for women within 15-19 years. Most ($\bar{x}$=2.62) of the pregnant women preferred health care services because they provided pregnant women with other delivery services within the age range of 20-24 years compare to women within 25-29 years with mean response of 2.33. Whereas women within 15-19 years accepted health care services within the age range of 2.29 mean compare to women within 30-34 years with mean response of 2.00 and 1.98 mean response among women within 35 years and above.

Further examination of the Table reveals that the aggregate mean of the acceptability of health care services among pregnant women was higher ($\bar{x}$ =2.85) among women within 30-34 years, compared to the aggregate mean of 2.47 among women of 25-29 years; 2.38 mean of 20-24 years, and 2.31 mean response of 35 years and above with 1.72 mean response for women within 15-19 years.

Table 4.3: Mean Scores Responses on Age Range and the Utilisation of Healthcare Services

S/N	Utilisation Variables	Age				
		15-19 yrs (Mean±SD)	20-24 yrs (Mean±SD)	25-29 yrs (Mean±SD)	30-34 yrs (Mean±SD)	≥35 yrs (Mean±SD)
1	The charges and cost of Health care services rendered makes me to use the Health services	1.34±0.07	2.14±0.07	2.00±0.12	1.73±0.11	2.00±0.01
2	The distance from my place of residence to the Health care centre makes me use the facility .	1.98±0.12	1.76±0.06	2.33±0.07	1.76±0.11	1.00±0.00
3	The work attitude of the Health care personnel influences my patronage of the facility	2.02±0.12	1.37±0.04	2.67±0.07	2.00±0.09	3.00±0.02
4	I prefer Health care services because there are qualified health personnel	1.34±0.07	1.49±0.05	2.67±0.07	1.50±0.07	2.00±0.00
5	Provision of adequate antenatal equipment at the Health care centre makes me patronize the Health centre	1.66±0.07	1.99±0.06	3.00±0.12	1.98±0.09	3.00±0.01
	Aggregate Mean	**1.67±0.03**	**1.75±0.02**	**2.53±0.04**	**1.79±0.02**	**2.20±0.08**

Decision Mean = 2.00

Table 4.3 shows that majority (m=2.14) of pregnant women within the age bracket 20-24years utilize health care services because the charges and cost of health care services rendered compared to women within 25-29 years and 35years and above respectively with mean of 2.00. While women within the age range of 30-34years with mean of 1.73 utilise health care services and 1.34 mean with women within the age bracket of 15-19years. The

distance from place of residence to health care services centre makes women within age range of 25-29 years to utilise health care services with mean response of 2.33 and women within 15-19 years with mean response of 1.98 compared to women within 20-24 years and 30-34years with mean response of 1.76 respectively. However, only 1.00 mean response of women within 35years above utilise health care services. The work attitude of the health care personnel influences patronage of the facility by pregnant women mostly ($\bar{x}$=3.00) in the age bracket of 35 years and above compared to 2.67 mean response of women within the age bracket of 25-29years. Whereas some ($\bar{x}$=2.02) of the pregnant women within 15-19 years utilise health care and others ($\bar{x}$=2.00) within the age bracket of 30-34years old and 1.37 mean response of women in the age bracket 20-24years. Many ($\bar{x}$=2.67) women of age 25-29years preferred health care services because there were qualified health personnel compared to women within the ages of 35years and above with mean of 2.00.

However, women ($\bar{x}$=1.50) within ages of 30-34years and 20-24years ($\bar{x}$=1.49) utilise health care services. Only few ($\bar{x}$=1.34) within the ages of 15-19years also utilise health care services. Provision of adequate antenatal equipment at the health care centre make women to patronize health centres, the number was higher ($\bar{x}$=3.00) in women of ages 25-29years and 35years and above respectively. Some ($\bar{x}$=1.99) within 20-24years and others ($\bar{x}$=1.98) within 30-34years utilise health care services with only ($\bar{x}$=1.66) of ages 15-19 years utilise healthcare services.

Further examination of the Table shows that utilisation of health care services was highest ($\bar{x}$=2.53) among women within 25-29 years and 2.20 mean response of ages

35years and above and 1.79 mean response of ages 30-34 years and 1.75 of ages 20-24 years and 1.67 mean response of ages 15-19 years.

Table 4.4: Mean Scores Responses on Educational Qualification and the Acceptability of Healthcare Services

S/N	Acceptability Variables	Educational Status			
		Non-Formal Education (Mean±SD)	**Primary Education (Mean±SD)**	**Secondary Education (Mean±SD)**	**Tertiary Education (Mean±SD)**
1	I prefer using Health care Services because my Husband prefers it.	1.34±0.07	2.13±0.05	2.33±0.07	4.33±0.00
2	I prefer Health care services because the personnel are knowledgeable in pregnancy management because of their experience in child delivery.	1.34±0.07	2.25±0.09	4.00±0.12	2.00±0.06
3	I prefer Health care services because it is able to examine the state of my pregnancy.	2.29±0.18	2.50±0.06	1.67±0.14	3.60±0.02
4	I like Health care service because it is safer for me and my baby	1.34±0.07	2.38±0.08	2.00±0.21	2.30±0.02
5	I prefer Health care services because they provide me with other delivery services.	2.29±0.18	2.62±0.09	2.33±0.18	2.00±0.00
	Aggregate Mean	**1.72±0.05**	**2.38±0.19**	**2.47±0.90**	**2.85±0.06**

Decision Mean = 2.00

Table 4.4 shows that many (4.33) women with tertiary education preferred using health care services because their husbands preferred it. Those ($\bar{x}$=2.33) with secondary education and others ($\bar{x}$=2.13) with primary education accepted health care services. Only few ($\bar{x}$=1.34) with non-formal education accepted health care services. Most ($\bar{x}$=4.00) secondary educated women and primary ($\bar{x}$=2.25) educated women with some ($\bar{x}$=2.00) tertiary educated women accepted health care services because the personnel were knowledgeable in pregnancy management. Only few ($\bar{x}$=.34) without formal education accepted utilising health care because personnel were knowledgeable in pregnancy management. Majority ($\bar{x}$=3.60) of tertiary educated women and primary educated

($\bar{x}$=2.50) women with some ($\bar{x}$=2.29) non-formal educated women and few ($\bar{x}$=1.67) secondary educated women preferred healthcare services because it is able to examine the state of their pregnancy. Primary educated ($\bar{x}$=2.38) women and other tertiary educated ($\bar{x}$=2.30) women with some ($\bar{x}$=2.00) secondary educated women and few ($\bar{x}$=1.34) with non-formal education liked health care services because it is safe for them and their baby.

Further observation of the table shows that the aggregate mean was highest ($\bar{x}$=2.85) among tertiary educated women with others ($\bar{x}$=2.47) having secondary education and some ($\bar{x}$=2.38) having primary education and few ($\bar{x}$=1.72) having non-formal education.

Table 4.5 Mean Scores Responses on Educational Qualification and the Utilisation of Healthcare Services

S/N	Utilisation Variables	Educational Status			
		Non-Formal Education (Mean±SD)	Primary Education (Mean±SD)	Secondary Education (Mean±SD)	Tertiary Education (Mean±SD)
1	The charges and cost of Health care services rendered makes me to use the Health services	1.51±0.06	2.52±0.09	2.42±0.09	2.00±0.02
2	The distance from my place of residence to Health care services centre makes the use of the facility easy for me.	1.76±0.11	2.51±0.09	3.19±0.16	3.00±0.18
3	The work attitude of the Health care personnel influences my patronage of the facility	2.22±0.14	2.89±0.07	1.20±0.05	2.50±0.09
4	I prefer Health care services because there are qualified health personnel	1.76±0.11	2.01±0.09	2.20±0.11	2.50±0.09
5	Provision of adequate antenatal equipment at the Health care centre makes me patronize the Health centre	2.48±0.14	1.61±0.07	2.79±0.09	2.00±0.02
	Aggregate Mean	**1.95±0.31**	**2.31±0.05**	**2.36±0.70**	**2.40±0.04**

Decision Mean = 2.00

Table 4.5 reveals that primary educated ($\bar{x}$=2.52) women with some ($\bar{x}$=2.42) secondary educated and others ($\bar{x}$=2.00) with tertiary education and few ($\bar{x}$=1.51) without

formal education utilise health care services because of the charges and cost rendered makes them to utilise it. The distance from place of residence to health care services centres makes most ($\bar{x}$=3.19) secondary educated women and tertiary educated ($\bar{x}$=3.00) women and some ($\bar{x}$=2.51) primary educated women and few ($\bar{x}$=1.76) non-educated women to visits healthcare centres. The work attitude of health care personnel influences the patronage of most ($\bar{x}$=2.89) primary educated women and tertiary ($\bar{x}$=2.50) women with some ($\bar{x}$=2.22) non-formal educated women and few ($\bar{x}$=1.20) secondary educated women. Many ($\bar{x}$=2.50) tertiary educated women preferred health care services with other ($\bar{x}$=2.20) secondary educated women and some ($\bar{x}$=2.01) primary educated women and few ($\bar{x}$=1.76) non-formal educated because there are qualified health personnel. Provision of adequate antenatal equipment at the healthcare centre makes most ($\bar{x}$=2.79) secondary educated women and other ($\bar{x}$=2.48) non-formally educated women with some ($\bar{x}$=2.00) tertiary educated women with few ($\bar{x}$=1.61) primary educated women to patronage health centres. The table further reveals that the aggregate mean of 2.40 was highest among tertiary educated women and 2.36 mean response of secondary educated women and 2.31 mean response of primary educated women and 1.95 mean response of non-formal educated women.

Table 4.6: Mean Scores Responses on Utilisation and the Location of Pregnant Women in Accessing Healthcare Services

S/N	Utilisation Variables	Location	
		Rural Areas (Mean±SD)	**Urban Areas (Mean±SD)**
1	The charges and cost of Health care services rendered makes me to use the Health services	1.78±0.05	2.00±0.07
2	The distance from my place of residence to Health care services centre makes the use of the facility easy to me.	1.70±0.06	1.99±0.06
3	The work attitude of the Health care personnel influences my patronage of the facility	1.69±0.05	2.13±0.07
4	I prefer Health care services because there are qualified health personnel	1.50±0.04	1.89±0.06
5	Provision of adequate antenatal equipment at the Health care centre makes me patronize the Health centre	1.99±0.05	2.33±0.08
	Aggregate Mean	**1.73±0.02**	**2.07±0.01**

Decision Mean = 2.00

Table 4.7 reveals that urban women ($\bar{x}$ m=2.00) utilise health care services because of the charges and cost of health care services rendered compared to rural ($\bar{x}$ =1.78) women. The distance from place of residence to health care services centre makes most ($\bar{x}$ =1.99) of the urban women to utilise it more than the rural ($\bar{x}$ =1.70). The work attitude of the health care personnel influences patronage of most ($\bar{x}$ =2.13) urban women more were more than rural ($\bar{x}$ =1.69). For those urban women ($\bar{x}$ =1.89) who preferred health ca e services did so because there were qualified health personnel more than rural ($\bar{x}$ =1.50). Provision of adequate antenatal equipment at the healthcare centre makes many ($\bar{x}$ =2.33) urban women to patronize health care services than rural women ($\bar{x}$ =1.99). Furthermore, the aggregate mean was higher ($\bar{x}$ =2.07) in urban women than rural ($\bar{x}$ =1.73).

Sub-Hypotheses Testing

1.6.1. There is no significant difference among pregnant women of different educational qualification in acceptability of health care services in north central zone of Nigeria.

1.6.2. There is no significant difference among pregnant women of different age range in acceptability of health care services in north central zone of Nigeria.

1.6.3. There is no significant difference among pregnant women of different educational qualification in the utilization of health care services in north central zone of Nigeria.

1.6.4. There is no significant difference among pregnant women of different age range in the utilization of health care services among pregnant women in north central zone of Nigeria.

Sub-Hypothesis One: There is no significant difference among pregnant women of different educational qualification in acceptability of health care services in north central zone of Nigeria.

Table 4.2.1: Analysis of Variance on the Difference Among Educational Qualifications for the Acceptability of Healthcare Services

Category of Regression	Source	SS	MS	df	F-ratio
Acceptability by Educational Qualification	Between samples	221.5817	73.8606	3	.001
	Within samples	193.1650	0.6526	296	
	Total	414.7467		299	

Examination of Table 4.2.1 reveals that there is no significant difference between educational qualifications of pregnant women in north central zone of Nigeria. This is,

because, the calculated F value of .001, which is less than the critical or table value of 2.60 at alpha level of 0.05. This shows that there is no significant difference among pregnant women of different age range in acceptability of health care services in north central zone of Nigeria. The null hypothesis is therefore retained because the F calculated is less than the F critical.

Sub-Hypothesis Two: There is no significant difference among pregnant women of different age range in acceptability of health care services in north central zone of Nigeria.

Table 4.2.2: Analysis of Variance on the Difference Among Age Range for the Acceptability of G Healthcare Services

Category of Regression	**Source**	**SS**	**MS**	**df**	**F-ratio**
Acceptability by Age Range	Between samples	161.2040	40.3010	4	.001
	Within samples	253.5426	0.8595	295	
	Total	4147467		299	

Observation of Table 4.2.2 shows that there is no significant difference among pregnant women of different age range in the acceptability of health care services in north central of Nigeria. This is because, the one ANOVA analysis results shows that the table value 2.37 is greater than the F calculated value of .001 at alpha level of 0.05. Consequently, the null hypothesis which states that there is no significant difference among pregnant women of different age range in the acceptability of health care services in north central zone of Nigeria is hereby retained and the alternate hypothesis rejected.

Sub-Hypotheses Three: There is no significant difference among pregnant women of different educational qualification in the utilization of health care services in north central zone of Nigeria.

Table 4.2.3: Analysis of Variance on the Difference Among Educational Qualifications for the Utilisation of Healthcare Services

Category of Regression	Source	SS	MS	df	F-ratio
Utilisation by educational qualification	Between samples	8.3695	2.0924	4	0.0010
	Within samples	181.8005	0.6163	295	
	Total	190.1700		299	

Table 4.2.3 reveals that there is no significant difference among pregnant women of different educational qualification in the utilization of health care services in north central zone of Nigeria. This is evident in the result of the ANOVA analysis which reveals that F calculated value 0.010 at alpha level of 0.05 is less than the critical value of 2.37. Since the calculated value is less than the critical value, the null hypothesis is hereby retained and the alternate hypothesis rejected. The researcher therefore concludes that no significant difference exist among pregnant women of different educational qualification in the utilisation of health care services in north central zone of Nigeria.

Sub-Hypotheses Four: There is no significant difference among pregnant women of different age range in the utilization of health care services among pregnant women in north central zone of Nigeria.

Table 4.2.4: Analysis of Variance on the Difference Among Age Range For the Utilisation of Healthcare Services

Category of Regression	Source	SS	MS	df	F-ratio
Utilisation by Age Range	Between samples	30.9092	7.7273	4	.001
	Within samples	104.0374	0.3527	295	
	Total	134.9467		299	

Observation of Table 4.2.4 reveals that no significant difference exist among pregnant women of different age range in the utilisation of health care services in north central zone of Nigeria. The result therefore support the null hypothesis which states that there is no significant difference among pregnant of different age range in the utilisation of G health care services in north central zone of Nigeria. This is revealed in the result of Table 4.2.5 which shows that the F calculated value of .001 at alpha level 0.05 is less than the critical value of 2.60. Consequently, the null hypothesis which states that there is no significant difference among pregnant women of different age range in the utilization of healthcare service in north central zone of Nigeria is hereby retained.

4.3 General Discussion

The study assessed the acceptability and utilization of the health care services for pregnant mothers in heath care centers across North Central Zone of Nigeria. One major null hypothesis and four null sub-hypotheses were tested in line with the objectives and research questions of the study. The major null hypothesis tested the general adequacies of the health care services for pregnant women in the health care centers of the state within the zone. The test of the hypothesis reveal that in terms of general adequacy, the health

care services for pregnant women in the zone could be considered statistically adequate. The null hypothesis was therefore rejected.

The significance of the acceptability of the health care services available in the states' health care centers across the zone was tested. The result of the test reveals that acceptability of the health care services were statistically significant. The null hypothesis was therefore rejected. The related data analysis reveals that preference was made of the health care services to other alternative ones by child bearing mothers in the zone were such services were adequately available. The finding here agrees with Awusi (2009) who opines that indicators of access and acceptability of health care facilities to pregnant women are important, since at a very basic level, health services need to be available in order for women to be able to accept and use them.

The significance of the utilization of the services by pregnant mothers in the zone was tested in research question three and sub-hypothesis III. The test reveals that the utilization of the available services was statistically significant. The null hypothesis was therefore rejected. From the related data, it was observed that where the services were available, the pregnant women in the area significantly utilized them.

Age Range

Results from the present study shows that there is no significant difference between age range of pregnant women in north central zone of Nigeria. This is in agreement with the findings of Jimalo (2008) who states that age and parity, though distinct, are almost impossible to discuss separately because, for an individual woman higher parity is inevitably associated with increasing age. Data from studies on Yoruba women of Ogun state of Nigeria shows proportionately fewer older than younger women delivered their

children in a hospital, (Taylor, 1984). Attitudinal differences have sometimes been cited to explain the higher utilization of health services by young, primiparae women as compared to older, multiparae women. It has been suggested that older women tend to feel a sense of confidence because of their past experience with pregnancy and child birth, (Kwast et al, 1984).

Educational qualification

The findings of the present study reveals that there is no significant difference among pregnant women of different educational qualification in the acceptability and utilisation of health care services in north central zone of Nigeria. This result corroborates with the findings of Akin et al (1985) who observes that there is abundant evidence to indicate that higher education levels among women are strongly associated with greater use of formal maternal health services. In a study, based on a sample of Nigerian women from Ogun state, results reveals that the women who delivered in hospitals were better educated and held higher status jobs than the women who delivered elsewhere. Even four years of primary school education seemed to increase the probability of women using hospital services for childbirth. In an overall review of the impact of education on demand for primary health care, Akin et al. (1985) argue that more highly educated families tend to have acquired a scientific, Western knowledge of disease, symptoms, and the importance of immunization and are therefore, more willing to accept the use of medical services. They illustrate this with data from the Philippines on different kinds of treatment sought for a sick child. They found that least educated mothers relied on self treatment in 45percent of the cases. This percentage declined to 30 percent. The most highly educated mothers. In contrast, the mothers with the highest education used private practitioners in

over 50 percent of the cases, while the least educated chose this kind of treatment only 25 percent of the time.

Maternal education also changes the traditional balance of power within the family, shifting the focus away from the patriarch and the mother-in-law to the mother Caldwell (1985).The Nigeria Demographic and Health Survey 2008 reports that only 10% of deliveries by mothers with no education occurred in health facilities compared to 90% of deliveries by mothers with education. This further emphasizes the importance of education in decision making. Educated mothers are more likely to take advantage of public health-care services than others.

Safe Motherhood Project, Nigeria Final Report (2007) results also reveal the important finding that among women with less than a secondary school education, health facility deliveries were significantly higher in Gwoza compared to the control group. Seventy-two percent of women in Gwoza delivered their last child (within the life of the project) in a health facility versus 40 percent in the control community. Among women who had completed secondary school or higher, results were 85 percent in Gwoza and 75 percent in the control community. Awusi, et al in a study on the determinants of antenatal care services utilization in Emevor village observes that higher educational attainment of both the women and their husbands had a positive influence on the utilization of ANC services in the studied population. In this study, 96% and 81%, respectively, of the women and those whose husbands had postsecondary education utilized the services. Conversely, 77% and 73% of women and those whose husbands had no formal education, respectively, did not utilize ANC services during pregnancy.

In a study on factors affecting the utilization of antenatal care services in Ibadan, Nigeria, many respondents blamed their lack of utilization of health facility for childbirth on unsatisfactory services at the health facility (54.2%),unfriendly attitude of staff at the health facility (70.8%), unavailability of staff at the health facility (64.0%) long waiting time (75%). Previous experience with childbirth in a health facility has also been reported to determine whether that facility will be utilized for further delivery services, (Moore et al, 2011). In the study, 66.7% of the respondents blamed their lack of utilization of health facility for childbirth on their previous uneventful delivery in health facilities. This corroborates the report by Awusi et al, in a study on the determinants of antenatal care services utilization in Emevor village, Nigeria which observes that women in Emevor community do not adequately utilize ANC services during pregnancy at least within the past 5 years preceding the survey. The non utilization rate of 43%, found in this study, was very high when compared to the less than 5% reported for industrialized countries, Awusi et al (2010).

According to NDHS (2003) Report, only about 37% of deliveries in Nigeria take place in health institutions, while 57% of deliveries take place at home. The data from the Nigerian Demographic and Health Surveys indicate that among pregnant Nigerian women, only 64% receive antenatal care from a qualified health care provider. There are wide regional variations, with only about 28% of women in the Northwest Zone and 54% in the Northeast Zone receiving antenatal care from trained health providers. The rest either do not receive antenatal care at all or receive care from untrained traditional birth attendants, herbalists or religious diviners.

Health-care utilization is strongly influenced by the characteristics of the illness as perceived by the individual, (Lynn Miller,2005). The perceived severity and etiology of the disorder will shape the decision to seek care, ibid. Many other factors must be favorable for an individual to use a health services. In Jamaica, for instance, while most women surveyed were able to name obstetric complications they had experienced themselves, fewer than 10% identified any other specific risk, danger or problem of pregnancy and previous pregnancies or births attached greater importance to the availability of medical back up than those who had uncomplicated births. Other studies in developing countries show that not only do women's knowledge of risks affect the use of ANC, but also does their knowledge of the severity of risks and their feeling of susceptibility to those risks. In India, it has been demonstrated that lack of recognition of health problems were significant reasons for not seeking out health care, which accounts for half of maternal deaths.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The purpose of this study was to assess acceptability and utilization of health care services among pregnant women in north central zone of Nigeria. To achieve this purpose, 12 hospitals were randomly selected using multi-stage sampling technique (stratified, simple and purposive sampling techniques). Data was collected using close-ended questionnaire and 384 questionnaires copies were distributed to pregnant women who attended antenatal clinics in the randomly selected hospitals, out of which 378 were duly completed and retained. Differences between educational qualification, age range and the acceptability and utilization of health care services were analysed and examined using descriptive statistics of means and standard deviation to answer the research questions and Analysis of Variance with alpha level of 0.05 to test the formulated hypotheses. The findings indicates that pregnant women of different educational qualification and age range do not differ significantly (F=.001) in the acceptability and utilization of healthcare services in north central zone if Nigeria.

5.2 Conclusion

Based on the results of this study and its limitations, the following conclusions were drawn:

- pregnant women of different educational qualification do not differ in the acceptability of health care services in north central zone of Nigeria;
- pregnant women of different age range do not differ in the acceptability of health care services in north central zone of Nigeria;

-. pregnant women of different educational qualification do not differ in the utilization of health care services in north central zone of Nigeria; and

-. pregnant women of different age range do not differ in the utilization of health care services in north central zone of Nigeria.

5.3 Recommendations

On the basis of the conclusion drawn, the following recommendations are made to improve acceptability and utilization of health care services in north central zone of Nigeria.

1. Development partners in conjunction with concerned government parastatals should set up a minority team charged with the responsibility to check and monitor periodically and provide updates for the activities of maternal health centres for improvement and possible updates on the available health centres.
2. Special interventions programmes should be made by health care providers for pregnant women with astute beliefs through education and support to give a better understanding of the benefits of health care services.
3. Since utilization of health care services depend largely on the nearness of the facility, government should establish maternal centres per ward for easy access and utilization of health care centres.
4. Special measures and guidelines for behavior towards patients should be made by heads of various maternal health centres to check and monitor the attitudes of personnel since the behaviors of the personnel influence the decision of pregnant women to use health centre.

5.4 Recommendations for Future Study

In the cause of this investigation, the researcher came across some contentious issues such as pregnant women not wanting to be part of the questionnaire answering about acceptability and utilization of health care services which are suggested below for future research:

1. It is not clear whether religious practices affect acceptability and utilization of health care services. A study can be undertaken on the acceptability and utilization of health care services.

REFERENCES

Acharya, D. and Anshu, S. (2008). *Indigenous Herbal Medicines: Tribal Formulations and Traditional Herbal Practices*. Jaipur: Aavishkar Publishers. ISBN 9788179102527.

Adamu, Y.M. and Salihu, H.M. (2002). Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria'. Journal of Obstetrics and Gynaecology, 22, (6):600–603.

Addai, I. (2000). Determinants of Use of Maternal-Child Health Services in Rural Ghana. *J. biosoc. Sci.* (2000) 32, 1-15.

Adegoroye, A. (1989). *Community Health Care*. Ibadan: Longman.

Alexander, G. R. and C. C. Korenbrot (1995). The role of prenatal care in preventing low birth weight. *Future Child* 5(1): 103-120.

Amonker, R. G. (1980) "What do teens know about the facts of life" *Journal of School Health,* (11)32-35.

Andersen, R. and Newman, J.F. (2005). Societal and Individual Determinants of Medical Care Utilization in the United States' *The Milbank Quarterly*, 83(4):1–28S.

Anderson, R. (1983) Health Services Utilization: Framework and Review*I-Health Services Research*, 3: 1 84-199.

Awusi, V.O., Anyanwu, E.B. and Okeleke, V. (2009) 'Determinants of Antenatal Care Services Utilization in Emevor Village, Nigeria'. Benin Journal of Postgraduate Medicine 11(4):401-414.

Babalola, S. and Fatusi, A. (2009). Determinants of use of maternal health services in Nigeria – looking beyond individual and household factors'. BMC Pregnancy and Childbirth 2009, 9:43.

Bell, J., Curtis, S.L. and Alayon, S. (2003). Trends in delivery care in six countries. DHS Analytical Studies No. 7. Calverton, Maryland: ORC Macro and International Research Partnership for Skilled Attendance for Everyone (SAFE).

Bennett, I.M., Coco, A., Anderson, J., Horst, M., Barr, W.B., and Ratcliffe, S. (2009). Improving Maternal Care with a Continuous Quality Improvement Strategy: A Report rom the Interventions to Minimize Preterm and Low birth weight Infants through Continuous Improvement Techniques (IMPLICIT). network' *J Am Board Fam Med*, 22(4): 380–386.

Bernard S. Bloom, Amelia Retbi, Sandrine Dahan, Egon Jonsson (2000), Evaluation Of Randomized Controlled Trials on Complementary and Alternative Medicine, *International Journal of Technology Assessment in HealthCare* 16(1),13-21.

bij de Vaate A, Coleman R, Manneh H, Walraven G. (2002). Knowledge, attitudes and practices of trained traditional birth attendants in the Gambia in the prevention, recognition and management of postpartum haemorrhage. *Midwifery.*18(1):3-11.

Brabin, L., F. H. Verhoeff, et al. (1998). "Improving antenatal care for pregnant adolescents in southern Malawi.*Acta Obstet Gynecol Scand* 77(4): 402-409.

Bruce, N., Pope, D., Stanistreet, D. (2007) Quantitative Research Methods in Public Health: a practical, interactive guide (J Wiley & Sons).

Burgard, S. (2004) 'Race and pregnancy related care in brazil and south Africa'. *Social Science & Medicine* 59: 1127–1146.

Burnard P. (1991). A method of analysing interview transcripts in qualitative research. *Nurse Educ Today*, 11(6):461-6.

Byaruhanga RN, Bergström A, Tibemanya J, Nakitto C, Okong P.(2008) Perceptions among post-delivery mothers of skin-to-skin contact and newborn baby care in a periurban hospital in Uganda. *Midwifery.*24(2):183-9.

Caldwell, J.C. (1979). "Education as a Factor in Mortality Decline.

Celik, Y. and Hotchkiss, D.R. (2000) 'Socio-economic determinants of maternal healthcare utilization in Turkey' Social Science & Medicine 50 (2000) 1797- 1806.

Chakraborty N, Islam MA, Chowdhury RI, Bari W, Akhter HH. (2003). Determinants of the use of maternal health services in rural Bangladesh. *Health Promot Int* 18(4):327- 37.

Chakraborty, N., Islam, M.A., Chowdhury, R.I., Bari, W. and Akhter, H.H. (2003). 'Determinants of the use of maternal health services in rural Bangladesh' *Health Promotion International*, 18,(4):67-78.

De Brouwere V, Tonglet R, Van Lerberghe W.(1998). Strategies for reducing maternal mortality in developing countries: what can we learn from the history of the industrialized West? *Trop Med Int Health*, 3(10):771-82.

De Brouwere, V., Tonglet, R. and Van Lerberghe, W. (1998). 'Strategies for reducing maternal mortality in developing countries: what can we learn from the history of the industrialized West?' *Tropical Medicine and International Health*, 3(10):771-782.

de Groot AN, van Roosmalen J, van Dongen PW, Borm GF.(1996). A placebo-controlled trial of oral ergometrine to reduce postpartum hemorrhage. *Acta Obstet Gynecol Scand*,75(5):464-8.

Defo, B.K. (1997). 'Effects of socioeconomic disadvantage and women's status on women's health in Cameroon'. *Soc. Sci. Med*. 44,(7):S1023-1042.

Doctor, H.V., Bairagi, I., Findley, S.E., Helleringer, S. and Dahiru, T. (2011). Northern Nigeria, Maternal, Newborn and Child Health Programme: Selected Analysis from Population-Based Baseline Survey'. *The Open Demography Journal*, 4, 11-21.

Elo, I.T. (1992). 'Utilization of maternal health-care services in Peru: the role of women's education'. Health Transition Review, 2(1) 19-24.

Fact sheet no. 134: Traditional medicine". World Health Organization. 2008-12- Retrieved 2009-05-02.

Gill, K., Pande, R. and Malhotra, A. (2007). 'Women Deliver: Women Deliver for Development', Background Paper for the Women Deliver Conference, 18-20 October.

Girish Dwivedi, Shridhar Dwivedi (2007). (PDF). *History of Medicine: Sushruta — then clinician — Teacher par Excellence*. National Informatics Centre. Retrieved 2008-10-08.

Glei, D.A., Goldman, N. and Rodriguez, G. (2003). 'Utilization of care during pregnancy in rural Guatemala: does obstetrical need matter?' Social Science & Medicine 57 (76): 2447–2463.

Gyimah, S.O., Takyi, B.K. and Addai, I. (2006). 'Challenges to the reproductive- health needs of African women: On religion and maternal health utilization in Ghana' Social Science & Medicine Vol. 62, Issue 12, June 2006, pp. 2930-2944.

Heinrich, M; Pieroni A; Bremner P; (2005). "Plants as medicines". In Prance G & Nesbitt M. The Cultural history ofplants. Routledge. pp. 205—238. iSBN 0415927463.

Jonathan D. Eldredge (2003). The Randomised Controlled Trial design: unrecognized opportunities for health sciences librarianship", *Health Information and Libraries Journal* 20 (36):34-44.

Kalimo, E. (1971). Comparisons Of Health-Related Attitudes-A Cross- National Factor Analytic Study. *Social Science Medicine* 5, 283-3 18.

Kankiya, 1-l.A (1985). Effective Mobilization and Utilization of Locally. *Journal of Nigerian MedicE. Association*.6 (21) 341-367.

Kay, M.A (1996). *Healing with plants in the American and Mexican West*. Tucson: University of Arizona Press. pp. 19-20. ISBN 0816516464.

Kerlinger, F.N (1997).*Foundations of Behavioural Research*. C.B.S College Publishing, New York.

Kwofie K, Brew-Graves E and Adika GH (1983). Malnutrition and pregnancy wastage in Zambia, social science medicine.

Laguerre, Michel S. (1987). *Afro-Caribbean folk medicine*. New York: Bergin & Garvey. ISBN 0-89789-1 13-9.

Lambo, T.A (1987). *I-IHealth and Disease around the World*. WHO Publication, Geneva S witzerl and Macmillan Publisheis Ltd, Lagos.

Magadi, M.A., Agwanda, A.O. and Obare, F.O. (2007). A comparative analysis of the use of maternal health services between teenagers and older mothers in sub-saharan Africa: Evidence from demographic health surveys'. Social Science & Medicine 64 1311–1325.

Maimbolwa MC, Yamba B, Diwan V, Ransjö-Arvidson AB. (2003). Cultural childbirth practices and beliefs in Zambia. *J Adv Nurs*. 43(3):263-74.

Maine D (1992). Safe Motherhood Programmes: Options and Issues Centre for Population and Family Health, Faculty of Medicine, Colombia University, New York.

Mairiga, A.G. and Saleh, W. (2009) 'Maternal mortality at the State Specialist Hospital Bauchi, Northern Nigeria'. East Afr Med J. 2009 Jan;86(1):25-30.

Matthiesen AS, Ransjö-Arvidson AB, Nissen E, Uvnäs-Moberg K.(2001). Postpartum maternal oxytocin release by newborns: effects of infant hand massage and sucking. *Birth*, 28(1):13-9.

Mbonye AK, Hansen KS, Wamono F, Magnussen P. (2010). Barriers to prevention of mother-to-child transmission of HIV services in Uganda. *J Biosoc Sci*. 42(2):271-283.

Mbonye AK, Mutabazi MG, Asimwe JB, Sentumbwe O, Kabarangira J, Nanda G, Orinda V. (2007). Declining maternal mortality ratio in Uganda: priority interventions to achieve the Millennium Development Goal. *Int J Gynaecol Obstet*. 98(3):285-290.

Mbonye AK. (2001). Risk factors associated with maternal deaths in health units in Uganda. *Afr J Reprod Health*. 5(3):47-53.

McCaw-Binns, A.M., Ashley, D.E., Knight, L.P., MacGillivray, I. and Golding. J. (2004). Strategies to prevent eclampsia in a developing country: I. Reorganization of maternity services'. International Journal of Gynecology and Obstetrics 2004 Dec; 87(3): 286-94.

Mekonnen, Y. and Mekonnen, A. (2002) Utilization of Maternal Healthcare Services in Ethiopia. Calverton, Maryland, USA: ORC Macro.

Mekonnen, Y. and Mekonnen, A. (2003) 'Factors Influencing the Use of Maternal Healthcare Services in Ethiopia'. J Health Popul Nutr 2003 Dec;21(4):374-382.

Menendez C, Tood J, Alonso PI et al. (1994). The effects of iron supplementation during pregnancy, given by traditional birth attendants on the prevalence of anemia and malaria. Transactions of the Royal Society of Tropical Medicine and Hygiene.

Ministry of Health Uganda and ORC Macro, (2006), Uganda HIV/AIDS Sero-Behavioral Survey 2004-2005 Cleverton, Maryland USA MOH and ORC Macro.

Ministry of Health Uganda, (2010). The Second National HealthPolicy Morgan, D L (1996): Focus Groups Annu rev.social 22:127-58

Morton, JF (1975). Current folk remedies of Northern Venezuela. *Quarterly Journal of Crude Drug Research* 13: 97-121.

Mpembeni, R.N.M., Killewo, J.Z., Leshabari, M.T., Massawe, S.N., Jahn, A., Mushi, D. and Mwakipa, H. (2007). Use pattern of maternal health services and determinants of skilled care during delivery in Southern Tanzania:implications for achievement of MDG-5 targets'. *BMC Pregnancy and Childbirth* 2007, 7:29.

Mugisha JF, Reynolds H. (2008). Provider perspectives on barriers to family planning quality in Uganda: a qualitative study. *J Fam Plann Reprod Health Care*, 34(1):37-41.

Myer L, Harrison A. J Midwifery Womens Health. Why do women seek antenatal care late? Perspectives from rural South Africa. 2003. Jul-Aug;48 (4):268-72.

Myer, L. and A. Harrison (2003). "Why do women seek antenatal care late? Perspectives from rural South Africa, *J Midwifery Womens Health* 48(4): 268-272.

Nabukera, S.K, Witte, K. Muchunguzi, C. Bajunirwe, F. Batwala, V.K. Mulogo, E.M, Farr, C. Barry, S. Salihu, H.M. (2006). Use of postpartum health services in rural Uganda: knowledge, attitudes, and barriers, *J Community Health*, 31(2):84-93.

National Population Commission (NPC) [Nigeria] and ICF Macro (2009). Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro.

Navaneetham, K. and Dharmalingam, A. (2000). Utilization Of Maternal Healthcare Services In South India.

Nuwaha, F. Kambugu, F. Nsubuga, P.S. (1999). Factors influencing sexual partner referral for sexually transmitted diseases in Uganda. *Sex Transm Dis.*,26(8):483-9.

Nwakoby, B.N (1994) 'Use of obstetric services in rural Nigeria'. J R Soc Health 1994 Jun; 114(3): 132-6

Nwogu, E.C. (2009) 'Utilization of Maternity Care in Nigeria'. *Global Journal of Pure and Applied Sciences*, 15,(3): 439-437.

Obermeyer, C.M. and Potter, J.E. (1991). Maternal Healthcare Utilization in Jordan: A Study of Patterns and Determinants' Studies in Family Planning, 22,(3):177-187

Ogunjuyigbe, P.O. and Liasu, A. (n.d.). The Social and Economic Determinants of Maternal Morbidity and Mortality in Nigeria.

Ojofeitimi, E.O and Tanimowo, C.M. (2002). Nutritional Beliefs among Pregnant Nigerian Women: *Int. J Gynaecol Obstet*, *National Library of Medicine*, 81(4):301-7.

Orinda, V. Kakande, H. Kabarangira, J. Nanda, G. Mbonye, A.K. (2005). A sector-wide approach to emergency obstetric care in Uganda. *Int J Gynaecol Obstet*, 91(3):285-91.

Ortiz de Montellano, B (1975). *Empirical Aztec medicine.* Science 188 (4185): 215—doi:10.1126/science.1090996. PMID 1090996.

Osubor, K.M., Fatusi, A.O., and Chiwuzie, J.C. (2006). Maternal Health- Seeking Behaviour and Associated Factors in a Rural Nigerian *Community' Maternal and Child Health Journal*, 10, (2):20-26.

Owina, B. (n.d.) 'The use of Maternal Healthcare Services: Socio-economic and demographic factors-Nyanza, Kenya'. IFRA ~ Les Cahiers, N° 21, pp. 81–122.

PRB. How Can We Reduce the Death Rates From Pregnancy and Childbirth? http://discuss.prb.org/content/interview/detail/1240/ retrieved on 18/April/2012

Prendiville, W.J. Elbourne, D.R, McDonald, S. (2000). Active versus Expectant Management of the Third Stage of Labour. The WHO Reproductive Health Library, No.3, World Health Organization, Geneva.

Promoting People‟s Health to Enhance Socio-economic Development. Republic of Uganda. Ray AM, Salihu HM. (2004). The impact of maternal mortality interventions using traditional birth attendants and village midwives. 24(1):5-11.

Raphael, Sandra; Blunt, Wilfrid (1994). *The Illustrated herbal*. London: Frances Lincoln. ISBN 0-7112-0914-6.

Reynolds, H. W., E. L. Wong, et al. (2006). Adolescents' use of maternal and child health services in developing countries." *Int Fam Plan Perspect* 32(1): 6-16.

Reynolds, H.W., Wong, E.L. and Tucker, H. (2006). Adolescents Use of Maternal and Child Health Services in Developing Countries' International Family Planning Perspectives, 32(1):6–16.

Sandelowski, M. (1994). The Use of Quotes in Qualitative Research Res Nurs Health 17(6): 479-482.

Sandelowski, M. (1995). Sample Size in Qualitative Research Res Nurs Health 18 (2): 179-183.

Short, S.E. and Zhang, F. (2004). Use of Maternal Health Services in Rural China'. Population Studies, 58, (1):3-19.

Sibley, L.M. Sipe, T.A. Koblinsky, M. (2004). Does traditional birth attendant training increase use of antenatal care? A review of the evidence. J Midwifery Womens Health. 49(4):298-305.

Slikkerveer, L. J. (1990). *Plural medical systems in the Horn of Africa: the legacy of "Sheikh" Hippocrates*. London: Kegan Paul International. ISBN 0-7103-0203-7.

Sengooba, F. Neema, S. Mbonye, A. Sentumbwe, O. Onama, V.(2003). Maternal Health Review Uganda. Makerere University Institute of Public Health, Healthy Systems Development Programme.

Stekelenburg, J., Kyanamina, S., Mukelabai, M., Wolffers, I. and van Roosmalen, J. (2004). Waiting too long: low use of maternal health services in Kalabo, Zambia' Tropical Medicine and International Health, 9 (3):390–398.

Stoltzfus, R. (2001). Defining iron-deficiency anemia in public health terms: a time for reflection." *J Nutr* 131(2S-2): 565S-567S.

Stoltzfus, R. J. (2001). "Iron-deficiency anemia: reexamining the nature and magnitude of the public health problem. Summary: implications for research and programs." *J Nutr* 131(2S-2): 697S-700S; discussion 700S-701S.

Thato, S.S. Rachukul, et al. (2007). "Obstetrics and perinatal outcomes of Thai pregnant adolescents: a retrospective study." *Int J Nurs Stud* 44(7): 1158-1164.

Trends in maternal mortality: 1990 to 2008 Estimates developed by WHO, UNICEF, UNFPA and The World Bank http://www.who.int/reproductivehealth/publications/monitoring/9789241500265/en /index .html: Accessed on March 14, 2014.

Uganda Bureau of Statistics (UBOS) (2002). Uganda Population and Housing Census, Main Report.

Uganda Bureau of Statistics (UBOS) and Macro International Inc., Uganda Demographic and Health Survey 2006. (2007). Calverton, Maryland, USA: UBOS and Macro International Inc. 501.

Uganda Ministry of Health, Uganda Ministry of Planning and Economic Development, Makerere University and IRD/Macro Systems Inc. Uganda Demographic and Health Survey 1988/1989: Columbia: IRD/Macro Systems Inc. 1989.

UNFPA State of the World Population (2005) Reproductive Health: A Measure of Equity Online] Available from: http://www.unfpa.org/swp/2005/english/ch4/index.htm Accessed: (August 03, 2010).

United Nations Development Program (2003). Human Development Report: 2003 Millennium Development Goals: A Compact Among Nations to End Human Poverty.Washington: Oxford University Press.

USAID (2001) USAID Congressional Budget Justification FY2002: Program, Performance and Prospects - The Global Health Pillar. [Online] Available from: http://www.usaid.gov/pubs/cbj2002/prog_pref2002.html Accessed: (August 25, 2010).

USAID (2009) Maternal and Child Health [Online] Available from: http://www. usaid.gov/our_work/global_health/mch/mh/techareas/post.html Accessed: (August 20, 2010).

Van den Broeck J, Eeckels R, and Massa G. (1996). 'Maternal determinants of child survival in a rural African community' *International Journal Epidemiol* 25(5):998-1004.

Wall, L.L. (1998). Dead mothers and injured wives: the social context of maternal morbidity and mortality among the Hausa of northern Nigeria'. *Stud Fam Plann*. 29(4): 341-59.

WHO (2004). Making pregnancy safer: the critical role of the skilled attendant'. A joint statement by WHO, ICM and FIGO.

WHO (2005). Attending to 136 million births, every year'. In: The World Health Report 2005 [Online] Available from: http://www.who.int/whr/2005/chap4-en.pdf Accessed: (November 07, 2010).

WHO (2011). Maternal Mortality Ratio'. Health statistics and health information systems [Online] Available from: http://www.who.int/healthinfo/statistics/indmaternalmortality/en/index.html Accessed: (February 15, 2011).

WHO, UNICEF, UNFPA (2001) Maternal Mortality in 1995: Estimates Developed by WHO, UNICEF, UNFPA, Geneva, WHO, UNICEF, UNFPA.

Wolff, B. Blanc, A.K. Ssekamatte-Ssebuliba, J. (2000). The role of couple negotiation in unmet need for contraception and the decision to stop childbearing in Uganda. *Stud Fam Plann.*,31(2):124-37

Women (2000). Gender Equality, Development and Peace for the Twenty- first Century: Five-year Review of the implementation of the Beijing Declaration and Platform for Action (Beijing + 5) held in the General Assembly, 5 - 9 June 2000. , New York, 5-9 June 2000.

Wong, E.L., Popkin, B.M., Guilkey, D.K. and Akin, J.S. (1987). Accessibility, Quality of Care and Prenatal Care Use in the Philippines,*Sot. Soc. Sci. Med.* 24, (I I): 927-944, 1987.

World Bank (1994). Development in Practice, A New Agenda for Women's Health and Nutrition, World Bank, Washington.

World Bank, World Development indicators, New York: World Bank, (2004). World Health Organization (1994). Mother-Baby Package: Implementing Safe Motherhood in Countries. World Health Organization, Geneva.

World Health Organization (1997), Coverage of Maternity Care: A Listing of the Available Information, Fourth Edition. World Health Organization, Geneva.

World Health Organization (1998). Care of the Umbilical Cord: A Review of Evidence, WHO/RHTMSM/98.4.WHO, Geneva.

World Health Organization (1999): Reduction of Maternal Mortality. A Joint WHO/UNFPA/UNICEF/World Bank Statement. World Health Organization, Geneva.

World Health Organization (2005). The World Health Report 2005: Making every mother and child count. WHO. Geneva.

World Health Organization (l99). *The Role of Health Centres in the Development of Urban Health Systems.* Report of a WHO Study on Primary Health Care in Urban Areas, WI-IC) Technical Report Series, No 827.

Yuster, E.A. (1995). Rethinking the role of the risk approach and antenatal care in maternal mortality reduction' International Journal of Gynecology & Obstetrics, 50 Suppl. 2 S59-S61

APPENDIX A

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION

AHMADU BELLO UNIVERSITY, ZARIA - NIGERIA

(OFFICE OF THE HEAD OF DEPARTMENT)

Vice-Chancellor: PROFESSOR ABDULLAHI MUSTAPHA, *B.Sc. (Hons) Pharm. (A.B.U), Ph.D. (London), FPSN*

Head of Department: PROFESSOR C. E. DIKKI, *NCE, B.Sc.Ed., M.Ed., Ph.D. (ABU)*

Our Ref: M.Ed/Educ/11508/2010-2011 Date: 17th August, 2011

Your Ref: _____

_____

_____

_____

Dear Sir,

LETTER OF INTRODUCTION: BRIDGET MBAFAN ANUM

The above named is a postgraduate student of this Department. She needs assistance from your office to enable him access relevant materials on her research topic **"Accessibility and Utilization of Health Care Service by Pregnant Women in FCT."**

Thanking you.

Yours faithfully,

Prof. C.E. Dikki
Head of Department

APPENDIX B

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION

AHMADU BELLO UNIVERSITY, ZARIA - NIGERIA

(OFFICE OF THE HEAD OF DEPARTMENT)

Vice-Chancellor: PROFESSOR ABDULLAHI MUSTAPHA, *B.Sc. (Hons) Pharm. (A.B.U), Ph.D. (London), FPSN*

Head of Department: PROFESSOR C. E. DIKKI, *NCE, B.Sc.Ed., M.Ed., Ph.D. (ABU)*

Our Ref: M.Ed/Educ/11508/2010-2011

Your Ref: _____

Date: 11th November, 2014

.....

.....

.....

.....

Dear Sir/Madam,

REQUEST TO VET A QUESTIONNAIRE

The bearer, **Bridget Mbafan ANUM** with Registration Number **M.Ed/Educ/4911/2011-2012** is a postgraduate student of this Department. She is currently conducting a research on **"Acceptability and Utilisation of Modern and Traditional Health Care Services among Pregnant Women in North Central Zone of Nigeria".**

On the basis of your professional expertise and experience, you have been selected to serve as jurors to critically vet the questionnaire and make the necessary corrections for its improvement.

Please kindly return it to the researcher.

Thank you.

Prof. (Mrs.) T.N. Ogwu
Major Supervisor

APPENDIX C

QUESTIONNAIRE ON ACCEPTABILITY AND UTILIZATION OF HEALTH CARE- SERVICES AMONG PREGNANT WOMEN IN NORTH CENTRAL ZONE, NIGERIA

SECTION A: Demographic Characteristics of the Respondents

1. Age Range
   a) 15-20 [ ]
   b) 21-26 [ ]
   c) 27-32 [ ]
   d) 33-38 [ ]
   e) 39 and above [ ]
2. Educational Qualification
   a) Primary school [ ]
   b) Secondary [ ]
   c) Tertiary [ ]
   d) Did not attend western education [ ]
3. Location
   (a) Urban [ ]
   (b) Rural [ ]

Please tick (✓) the option against the statement that is most appropriate to you. Strongly Agree (SA), Agree (A), Disagreed (D), Strongly Disagree (SD) for all the sections.

B: Acceptability of Health Care Services by Pregnant Women

S/N	Statement	SA	A	D	SD
10.	I prefer using health care services because my husband prefers it.				
11.	I prefer health care service because the personnel are knowledgeable in pregnancy management because of their years of experience in child delivery.				
12.	I like the health care service because it is able to examine the state of my pregnancy.				
13.	I prefer health care service because it is safer for me and my baby.				
14	I prefer health care services because they provide me with after delivery services.				

C. Utilization of Health Care Services by Pregnant Women

S/N	Statement	SA	A	D	SD
15.	The charges and cost of health care services rendered makes me to use the health care services.				
16.	The distance from my place of residence to health centre makes the use of the facility easy for me.				
17	The work attitude of the health personnel influences my patronage of the facility.				
18.	I prefer health care services because there are qualified health personnel.				
19.	Provision of adequate antenatal equipment/facilities at the health centre makes me patronize the health centre.				