ASSESSMENT OFTHE SERVICE QUALITY OF FOCUSED ANTENATAL CARE AT HEALTH CARE FACILITIES IN BAUCHI STATE

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MAY, 2017

DECLARATION

I, Adamu ALHAJI, hereby declare that this research work was carried out by me and to the best of my knowledge; it has been presented for the award of Msc Nursing.

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ALHAJI, ADAMU **Date**

CERTIFICATION

This Dissertation entitled ASSESSMENT OF SERVICE QUALITY OF FOCUSED ANTENATAL CARE AT HEALTH FACILITIES IN BAUCHI STATE by ADAMU ALHAJI meets the regulations governing the award of the degree of Msc Nursing Sciences of Ahmadu Bello University, and is approved for its' contribution to knowledge and literary presentation.

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Dean, School of postgraduate Studies Signature Date

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Alhaji, Alhaji

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ACRONYMS AND ABREVIATION

AF	Available and functioning
ANC	Antenatal Care
ANF	Available not functioning
CHEW	Community Health Extension Workers
DNS	Done not satisfactory
DS	Done and satisfied
EDD	Expected Day of Delivery
FANC	Focused Antenatal care
Hb	Hemoglobin
HHR	Health Human Resource
HIRG	Health Workforce Information Reference Group
HIV	Human Immunodeficiency Virus
HRIS	Human resource information systems
IPHS	Indian public health standard
IPTp	Intermittent preventive treatment of malaria in pregnancy
ITNs	Insecticide-treated bed nets
LNMP	Last normal menstrual period
N&MCN	Nursing and Midwifery Council of Nigeria

NA Not available

ND Not done

PMTCT Prevention of Mother to Child Transmission

PPH postpartum haemorrhage

PV per vagina

SPSS Statistical Package for Social Sciences

USAID United States Agency for International Development

WHO World Health Organization

WISN Workload Indicators of Staffing Need

Operational Definitions of terms

1. Focused Antenatal care	Care given to a pregnant woman during pregnancy.
2. FANC:	Focused Antenatal Care Services.
3. Quality of services:	Antenatal care services provided according to the set WHO standards and national guidelines, based on Evidence-Based Medicine, and meeting client needs.
4. Quality of care:	The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge
5. Standards:	Statements or an expression that spells out the best practice and gives some ideas on how the level of care is to be achieved.
6. Guidelines:	Systematically developed statements, which assist in making decisions about appropriate health care for specific conditions based on evidence or research. Focused antenatal care (Targeted ANC): Minimum number of four personalizes clinic visits each of which has specific items of client assessment, education and care to ensure prevention or early detection and prompt management of complications.
7. Clients:	Pregnant Women in the antenatal clinics seeking for Focused antenatal Care services.
8. Maternal Mortality:	Maternal deaths due to pregnancy and childbirth complications.
9. Satisfaction:	Sensitive to and meeting the needs of clients in terms of quality, privacy and confidentiality, meeting clients needs in a culturally acceptable way.

10. Material resources: physical set up, infrastructure, supplies, equipment and pharmaceuticals needed for focused antenatal care services

11. Human resources: All people engaged in actions whose primary intent is to enhance health" include physicians, nurses, midwives, community health workers and social health workers

ABSTRACT

The aim of this study was to assess the Service quality of focused antenatal care at health care facilities in Bauchi State. Five research objectives were stated: to determine the availability of material resources for focused antenatal care, to assess the capacity of human resource for focused antenatal care, to assess the quality services of focused antenatal care, to assess the focused antenatal care services utilization and to assess the level of clients' satisfaction with focused antenatal care services .A cross sectional descriptive design was adopted. A total of three hundred and eighty four pregnant women that attended antenatal care clinic in twenty two health care facilities in Bauchi State were recruited. Multi-stage sampling technique was used. The data collected using semi-structured questionnaire and observational checklist through face to face interview and audit observation check list during the period of first May to the end August 2016. Descriptive statistics was used. Donabedian Bruce quality model (1980) was adopted as a theoretical framework. The result revealed that: Eighty percent of the respondents were over 35 years old, 66% of them were Hausa/Fulani, almost half of them had secondary school certificate, and more than half of them had parity above six times. Eighty percent of the sample utilized focused antenatal care always. Only 43% of material resources in the health facilities were available and functioning. The human resources rate in the health facilities were 0.81, 0.5, 2.7 and 1.8 Doctors, Nurses, Midwives and CHEW respectively. The quality of care in the studied health facilities was 54.2% satisfactory. The total mean satisfaction was 2.3 /4 .It can be concluded that: there were inadequate material resources, shortage of human resources , high utilization of focused antenatal care services and the client satisfaction was little bit low . Recommendations: Government should Ensure adequate material resources for focused antenatal care services in each facility in Bauchi State, Ensure

adequate health care providers to improve quality focused antenatal care services, Periodic In-service training ,monitoring and evaluation to improve the quality services, Health education for the clients to increase the awareness and the importance of focused antenatal care and Regular assessment of the level of clients' satisfaction is needed to improve the lacking areas

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Keywords: Focused Antenatal care, Quality of services, client Satisfaction. Healthcare services

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CHAPTER ONE

INTRODUCTION

1.0 Background to the study

Maternal mortality is a global issue as a result of low focused antennal care; approximately about 830 women die from pregnancy complications around the world every day (World Health Organization, 2015). The differences between regions are stark: There are currently 12 maternal deaths per 100,000 live births in developed regions compared with 546 in sub-saharan Africa. Nigeria is ranked the second in the world with maternal mortality rate (630 per 100,000 live births), Nigeria Demographic and Health Survey, (2013)

The goal established by United States to reduced the worldwide maternal mortality ratio (MMR) –the number of maternal deaths per 100,000 live births by 75% between 1990 and 2015 was not achieved, but significant progress has been made (43.9% decline). The 2015 global MMR is estimated at 216 deaths per 100,000 live births, down from 385 in 1990. (Zolat and pa,2016).

.Maternal morbidity and mortality has remained high in sub-Saharan Africa as a result of poor antenatal cares, despite concerted efforts at its reduction, by various stakeholders and development partners (Sholeye, Abosede, and Jeminusi, 2013).Seeing that it is possible to accelerate the decline, countries have now united behind a new target to reduce maternal mortality even further. One target under Sustainable Development Goal 3 is to reduce the global maternal mortality ratio to less than 70 per 100 000 births, with no country having a maternal mortality rate of more than twice the global average by focused antenatal care.

Focused Antenatal Care is a Goal oriented care that is client centered, timely, friendly, simple, beneficial and safe to pregnant women. (United States Agency for International

Development,2009).World Health Organization recommended a minimum of 4 visits antenatal care for pregnancies without complications scheduled as First visit: within 16 weeks or when woman first thinks she is pregnant, Second visit: At 20 - 24 weeks or at least once in second trimester, Third visit: At 28 - 32 weeks and Fourth visit: At 36 weeks or later. Limited resources of developing countries like Nigeria can be redirected to give better quality antenatal care services across the recommended four visits (villar and Bergsgo, 2001).Currently, (WHO, 2016) Recommended eight visits of focused antenatal care with first contact at 12 weeks of gestation, with subsequent contacts taking place at 20,26,30,34,36,38, and 40 weeks of gestation.

The essential elements of a focused approach to antenatal care are; identification and surveillance of the pregnant woman and her expected child; Recognition and management of pregnancy-related complications; particularly pre-eclampsia, Recognition and treatment of underlying or concurrent illness and screening for conditions and diseases such as anemia (Ademola, 2011). The objectives of focused antenatal care are; Maintenance of health of mother during pregnancy, Identification of high risk cases and appropriate management; Prevent development of complications; Decrease maternal and infant mortality and morbidity. Remove the stress and worries of the mother regarding the delivery process; Teach the mother about child care, nutrition, sanitation and hygiene; Advice about family planning, and Care of under fives accompanying pregnant mothers,(Johnson,2015).

Global health, (2014) Stated the goals of focused antenatal care as; Identification of pre-existing health conditions. Early detection of complications arising during the pregnancy, Health promotion and disease prevention and Birth preparedness and complication readiness planning. United States Agency for International Development (2009) Stated the services

provided during FANC as; History taking; Personal information , Medical history- Medication, allergies, HIV status , Surgical history , Obstetrics and gynecological history ,Family and social history , Immunization. Physical examination; General appearance, Blood Pressure, Weight, height, Pulse and Respiratory rates, Head to toe assessment. Laboratory investigations; Urine test for albumin and sugars, Hb, Blood grouping and Rhesus factor, VDRL/RPR for syphilis screening ,HIV testing, CD4 count if indicated, Blood examination for malaria parasites where indicated.

Quality in FANC is based on performance standards that are safe and have capacity to improve quality of antenatal services within available resources. (United States Agency for International Development, 2009). The six domain of health care quality are;

(i)Safe: Avoiding harm to patients from the care that is intended to help them.**, (**ii**)**Effective: Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively), and (iii)Patient-centered: Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions, (iv)Timely: Reducing waits and sometimes harmful delays for both those who receive and those who give care, (v)Efficient: Avoiding waste, including waste of equipment, supplies, ideas, and energy, (vi)Equitable: Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status (Institute of Medicine,2001).

Service quality is a comparison of expectations about a service with performance. It has five dimensions namely; Tangibles**,** Reliability**,** Responsiveness, Assuranc*e*, and Empathy, (Zeithaml, Parasuraman and Berry, 2008). Human resources can be defined as all the

practices, systems and procedures implemented to attract, acquire, develop and manage human resources to achieve the goals of an organization (WHO,2010). The higher the quality of human resources the better the maternal health. The material resources for focused antenatal care are sub divided in to 3 by Indian public health standard (IPHS) in 2012 as follows; Infrastructure , Equipment, and Consumables.

Various factors including attitude of staff, cost of care, time spent at the hospital and doctor communication have been found to influence patient satisfaction (Nweze, Enabor, and Aimakhu, 2013).

Patient satisfaction is the extent to which specific client needs are met, Satisfied patients are likely to continue with care and compliance with visit time and various factors including attitude of staff, cost of care, time spent at the hospital and doctor communication have been found to influence patient satisfaction in previous studies (Nweze, Enabor, and Aimakhu, 2013)

1.2 Statement of the Problem

Although overall levels of antenatal care are relatively high across regions, disparities are revealed when coverage is examined in light of household wealth and urban or rural residence. In South Asia and sub-Saharan Africa the urban-rural gap in coverage of four or more antenatal care visits exceeds 20 percentage points in favor of urban areas. This gap has not closed within the last decade (WHO, 2015). Antenatal care (ANC) coverage is a success story in Africa, since over two-thirds of pregnant women (69 percent) have at least one ANC contact. However, to achieve the full life-saving potential that ANC promises for women and babies, four visits providing essential evidence transmitted infections. ANC is also an

opportunity to promote the use of skilled attendance at birth and healthy behaviours such as breastfeeding, early postnatal care, and planning for optimal pregnancy spacing (WHO,2015). Many of these opportunities continue to be missed, even though over two-thirds of pregnant women receive at least one antenatal visit. There are various factors including attitude of staff, cost of care, time spent in waiting and health care providers communication has been found to clients utilization of the services and their satisfaction. (WHO,2015) .Adequate infrastructure are influential key elements of successful FANC that benefit the wellbeing of women, their newborns and families. Client satisfaction is essential for further improvement of quality of focused antenatal care and to provide uniform health care services for pregnant women. However, studies on level of client satisfaction with focused antenatal care and associated factors are lacking. How can we strengthen ANC to provide the priority interventions, especially given Africa's current critical shortage of human resources for health? Lacking in the resources? Are there particular barriers or challenges to increasing coverage and quality that could be overcome? Are the pregnant women satisfied with level of quality services? How can the nurses play their roles to improve the quality of care in maternal child center? So the aim of the study was to assess the services quality of focused antenatal care at health care facilities in Bauchi State.

1.3 Objectives of the Study

The aim of the study was achieved through the following objectives:

1. To determine the availability of Material resources for focused antenatal care in health facilities in Bauchi State

2. To explore the capacity of human resource for focused antenatal care in health facilities in Bauchi State
3. To assess the quality service of focused antenatal care in health facilities in Bauchi State
4. To assess the level of utilization of Focused Antenatal Care services among pregnant women in health facilities in Bauchi State
5. To assess the level of clients' satisfaction with focused antenatal care services in health facilities in Bauchi State

1.4 Research Question

1. What is the availability of materials resources for focused antenatal care in health facilities in Bauchi State?
2. What is the capacity of human resources for focused antennal care services in health facilities in Bauchi State?
3. What is the level of quality services provided during focused antenatal care in health facilities in Bauchi State?
4. What is the level of utilization of focused Antenatal care Services among pregnant women in health facilities in Bauchi State?
5. What is the level of client satisfaction with focused antennal care services in health facilities in Bauchi State?

1.5 Significance of the Study

Improvement of the service quality of Antenatal care is a major strategy used by hospitals and health care facilities to reduce maternal death and morbidity. The study will help to identify the area of lacking in the material resources, human resources and provision of

service quality of FANC in Bauchi State, which when addressed will strengthening the capacity and credibility of FANC. The study will be benefit to the following: The pregnant women, health worker, community, researchers and Nigeria in general.

For the pregnant women, this study will empower pregnant women to make informed decision on their health and reduces maternal mortality and morbidity through early detection of complication arising during the pregnancy, health promotion and disease prevention; it will also increase pregnant women satisfaction with focused antenatal care services. For the health worker, the study would help them to identify areas of lacking in material and human resources for focused antenatal care services in the State which when addressed will go a long way in strengthening the capacity of FANC services and quality services. This will result in improved sustained use of services quality and nursing practice. While for the community, the study would enable them appreciate the effort of health workers towards focused antenatal care services. It will also serve as reference to researchers on the relevant areas of the study.

1.6 Scope (Delimitation)

The scope of the study is to assess the service quality of focused antenatal care at health facilities in Bauchi State.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction;

This chapter presented the available review of related literature; it covers the following sections;

A. Conceptual Review

1. Focused Antenatal Care
2. Service Quality
3. Quality of care
4. Nurses midwife role in Focused Antenatal Care Services

B. Theoretical frame work

C. Empirical Studies

D. Summary of the chapter

2.1 Focused Antenatal Care

Antenatal care refers to the regular medical and nursing care recommended for women During pregnancy; It is a type of preventive care with the goal of providing regular checkups that allow doctors or midwives to prevent, detect as well as treat Potential health problems that may arise in a pregnant woman, (WHO, 2005).

Focused Antenatal Care is an individualized and quality care provided to pregnant women which emphasizes on the woman's overall health; her preparation for childbirth and readiness for complications during her term of pregnancy (Miriam, 2014). The new

approach to ANC emphasizes the quality of care rather than the quantity (Global health, 2014). Antenatal care is the care a woman receives throughout her pregnancy in order to ensure that women and newborns survive pregnancy and childbirth (Ademola, Adenike, & Motunrayo,2011).

2.1.1Goals of Focused ANC

The new approach to ANC emphasizes the quality of care rather than the quantity. For normal pregnancies WHO recommends only four antenatal visits. The major goal of focused antenatal care is to help women maintain normal pregnancies through:

- Identification of pre-existing health conditions
- Early detection of complications arising during the pregnancy
- Health promotion and disease prevention
- Birth preparedness and complication readiness planning (Global health,2014).

2.1.2 Objectives of focused antenatal care are;

(1)Maintenance of health of mother during pregnancy(2)Identification of high risk cases and appropriate management(3)Prevent development of complications(4)Decrease maternal and infant mortality and morbidity(5)Remove the stress and worries of the mother regarding the delivery process(6)Teach the mother about child care, nutrition, sanitation and hygiene(7)Advice about family planning(8)Care of under fives accompanying pregnant mothers (Johnson, 2015).

2.1.3 Schedule of visits during pregnancy

Focused antenatal care (FANC) became the recommended type of antenatal care following the publication of a (WHO,2014). Trial on antenatal care where it was

discovered that more frequent visits (of the traditional antenatal care approach) do not necessarily improve pregnancy outcomes and advocate a minimum of 4 visits for pregnancies without complications scheduled as

- First visit: within 16 weeks or when woman first thinks she is pregnant.
- Second visit: At 20 - 24 weeks or at least once in second trimester.
- Third visit: At 28 - 32 weeks and
- Fourth visit: At 36 weeks or later.

Limited resources of developing countries like Nigeria can be redirected to give better quality antenatal care services across the re- commended four visits (villar and Bergsgo, 2001).Antenatal services comprise complete health supervision of the pregnant women in order to maintain, protect and promote health and well being of the mother and the fetus (Ojo 2004). The services rendered to a pregnant woman at monthly intervals, to 28 weeks of gestation, then fortnightly until 36 weeks and finally weekly visit until the birth of the baby. Similarly, (Adesokan, 2010) describes antenatal services as the attention, education, supervision and treatment given to the pregnant women from the time conception is confirmed until the beginning of labour, in order to ensure safe pregnancy, labour and puerperium. Qualitative antenatal services are care given to pregnant women by a skilled or trained health provider to promote the health and survival of mother and child (Adesokan, 2010). The focused antenatal services refer to minimum number of four antenatal clinic visits, each of which has specific items of client assessment, education and care to ensure early detection and prompt management of complication (Ekabua, Ekabua&Njoku, 2011). Focused antenatal care, which is evidence based, client-centered, goal directed care,

provided by skilled health providers with emphasis on quality rather than frequency of visits, is an approach to be adopted globally (Ojong,Uga and Chiotu, 2015).

Table 2.1 the four-visit ANC model (WHO,2014)

INITIAL VISIT	SUBSEQUENT VISITS		
First visit 8-12 weeks • Confirm pregnancy • and EDD, • classify • women for basic ANC • (four visits) or more • specialized care. • Screen, treat and give • preventive measures. • Develop a birth • and emergency plan. • Advice and counsel.	Second visit 24-26 weeks • Assess maternal and • fetal well-being. • Exclude PIH, anaemia, • multiple pregnancies. • Give preventive • measures. • Review and modify • birth and emergency • plan. Advise and • counsel.	Third visit 32 weeks • Assess maternal and • fetal well-being. • Exclude PIH, anaemia, • multiple pregnancies. • Give preventive • measures. • Review and modify • birth and emergency • plan. Advise and • counsel.	Fourth visit 36-38 weeks • Assess maternal and • fetal well-being. • Exclude PIH, anaemia, • multiple pregnancy, • malpresentation. • Give preventive • measures. Review and • modify birth and • emergency plan. • Advice and counsel.

2.1.4 The essential elements of a focused approach to antenatal care

The essential elements of focused antenatal care are as follows:

• Identification and surveillance of the pregnant woman and her expected child

• Recognition and management of pregnancy-related complications, particularly pre-eclampsia

• Recognition and treatment of underlying or concurrent illness

• Screening for conditions and diseases such as anaemia,

STIs (particularly syphilis), HIV infection, mental health problems, and/or symptoms of stress or domestic violence

• Preventive measures, including tetanus toxoid immunization, de-worming, iron and folic acid, intermittent preventive treatment of malaria in pregnancy (IPTp), insecticide treated bed nets (ITN)

• Advice and support to the woman and her family for developing healthy home behaviours and a birth and emergency preparedness plan to:

o Increase awareness of maternal and newborn health needs and self care during pregnancy and the postnatal period, including the need for social support during and after pregnancy to Promote healthy behaviors in the home, including healthy lifestyles and diet, safety and injury prevention, and support and care in the home, such as advice and adherence support for preventive interventions like iron supplementation, condom use, and use of ITN to Support care seeking behavior, including recognition of danger signs for the woman and the newborn as well as transport and funding plans in case of emergencies to help the pregnant woman and her partner prepare emotionally and physically for birth and care of their baby, particularly preparing for early and exclusive breastfeeding and essential newborn care and considering the role of a supportive companion at birth to Promote postnatal family planning/birth spacing

Factors identified as militating against focused antenatal care are poor funding, culture, religious practices, ignorance and inadequate training of health care providers on the advantages of focused antenatal care (Ademola, 2011).

Recently, *(*WHO,2016) has issued a new series of recommendations to improve quality of antenatal care in order to reduce the risk of stillbirths and pregnancy complications and give women a positive pregnancy experience.

Last year, an estimated 303 000 women died from pregnancy-related causes, 2.7 million babies died during the first 28 days of life and 2.6 million babies were stillborn. Quality health care during pregnancy and childbirth can prevent many of these deaths, yet globally only 64% of women receive antenatal (prenatal) care four or more times throughout their pregnancy.WHO's recommended new antenatal care model increases the number of contacts a pregnant woman has with health providers throughout her pregnancy from four to eight. Recent evidence indicates that a higher frequency of antenatal contacts by women and adolescent girls with the health system is associated with a reduced likelihood of stillbirths. This is because of the increased opportunities to detect and manage potential problems. A minimum of eight contacts for antenatal care can reduce perinatal deaths by up to 8 per 1000 births when compared to a minimum of four visits.

The new model increases maternal and fetal assessments to detect problems, improves communication between health providers and pregnant women, and increases the likelihood of positive pregnancy outcomes. It recommends pregnant women to have their first contact in the first 12 weeks' gestation, with subsequent contacts taking place at 20, 26, 30, 34, 36, 38 and 40 weeks' gestation.

2.1.5 Material Resources for Focused Antenatal Care

The material resources are sub divided in to three namely:

a) Infrastructure; is the basic structure or feature of focused antenatal clinics. It includes furniture, fittings and sundry articles.
b) Equipment is an instrumentally needed for performing focused antenatal care services in health facilities which includes basin, thermometer, touch light.

c) Consumables are material or product that is produced for focused antenatal care consumption which includes surgical gloves, Savlon, sprit, papers and all disposable materials (Indian public health standard, 2012).

2.1.6 Human Resource for Focused Antenatal Care

- HRM can be defined as all the practices, systems and procedures implemented to attract, acquire, develop and manage human resources to achieve the goals of an organization (Ikeoluwapo,2013).

- Health human resources ("HHR") — also known as "human resources for health" ("HRH") or "health workforce" — is defined as "all people engaged in actions whose primary intent is to enhance health", according to the World Health Organization's World Health Report 2006. Human resources for health include physicians, nurses, registered nurses, midwives, dentists, allied health professions, community health workers, social health workers and other health care providers, as well as health management and support personnel – those who may not deliver services directly but are essential to effective health system functioning, including health services managers, medical records and health information technicians, health economists, health supply chain managers, medical secretaries, and others.

- Health human resources deals with issues such as planning, development, performance, management, retention, information, and research on human resources for the health care sector. In recent years, raising awareness of the critical

role of HRH in strengthening health system performance and improving population health outcomes has placed the health workforce high on the global health agenda.

The World Health Organization (WHO) estimates a shortage of almost 4.3 million physicians, midwives, nurses and support workers worldwide. The shortage is most severe in 57 of the poorest countries, especially in sub-Saharan Africa. The situation was declared on World Health Day 2006 as a "health workforce crisis" – the result of decades of underinvestment in health worker education, training, wages, working environment and management.

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Shortages of skilled health workers are also reported in many specific care areas. For example, there is an estimated shortage of 1.18 million mental health professionals, including 55,000 psychiatrists, 628,000 nurses in mental health settings, and 493,000 psychosocial care providers needed to treat mental disorders in 144 low- and middle-income countries. Shortages of skilled birth attendants in many developing countries remain an important barrier to improving maternal health outcomes. Many countries, both developed and developing, report misdistribution of skilled health workers leading to shortages in rural and underserved areas.

Regular statistical updates on the global HHR situation are collated in the WHO Global Atlas of the Health Workforce. However the evidence base remains fragmented and incomplete, largely related to weaknesses in the underlying human resource information systems (HRIS) within countries.

In order to learn from best practices in addressing health workforce challenges and strengthening the evidence base, an increasing number of HHR practitioners from around the world are focusing on issues such as HHR advocacy, surveillance and collaborative practice.

An essential component of planned HRH targets is supply and demand modeling, or the use of appropriate data to link population health needs and/or health care delivery targets with human resources supply, distribution and productivity. The results are intended to be used to generate evidence-based policies to guide workforce sustainability. In resource-limited countries, HRH planning approaches are often driven by the needs of targeted programmes or projects, for example those responding to the Millennium Development Goals.

The WHO Workload Indicators of Staffing Need (WISN) is an HRH planning and management tool that can be adapted to local circumstances. It provides health managers a systematic way to make staffing decisions in order to better manage their human resources, based on a health worker's workload, with activity (time) standards applied for each workload component at a given health facility.

Minimum staff requirement for this level of antenatal care should include a midwife, receptionist/records clerk, orderlies and sanitation workers, and a laboratory assistant. A community health extension worker where available is an asset; in carrying out-home visits

and assessing the environmental health needs of patient's residence. Also the introduction of home-based record system will facilitate the process of clinic visit and reduce waiting time.

Within a county or local government area, secondary health facilities providing antenatal care should be sited within 20 kilometers of each other. Where population density is high, the distance between such facilities may be shorter to improve coverage. Antenatal clinics at the secondary level should provide service for all pregnant women in their area of coverage and for pregnant women with complications referred from the primary health care level. Each province, state, or geopolitical area should have a tertiary health facility providing antenatal care service. Care, preferably, should be limited to all pregnant women with medical and obstetric complications who register directly for ANC or are referred. This will justify the huge resources and personnel invested in these centers of excellence.

Health systems in both developed and developing countries are under pressure to improve service delivery in an ever increasing population with limited or reduced resources (Namgada, 2008). This is due to increased burden of diseases; desire to receive best quality care, advanced technology in health care, awareness of health rights, improved access to diverse health service. In health care systems, the following are needed for the provision of health services to patients/clients, efficient health polices, sufficient trained health personnel, appropriate equipments, finance (Olade, 2005).

The primary goal of all health systems is to render quality care; however, certain factors seem to hinder the efforts towards achieving this goal maximally. The global shortages of health professionals, as well as the caliber of health providers, for example, have been reported to affect the quality and outcome of care (Olade, 2005). World Health Organization

(2010) report shows that in some developed countries, the ratio of staff to the population is 1000 to 100,000. In developing countries, it is 100 to 100,000. A report on health workforce country profile for Nigeria revealed that there were 52,408 doctors on the medical register as at December 2010, and 128,918 registered nurses (Labran, Mafe, Onajole and Lambo, 2011). According to Needleman (2005), the standard staff mix to patient ratio depending on unit size is 1:4-6 patients. In more intensive care units, it is 1:2-3 patients.

The Nursing and Midwifery Council of Nigeria (N&MCN, 2005) stipulates that the staff/patient ratio in Clinical practice for different cadres of staff and depending on the unit and type of patient managed, is 1:4-5,(for general wards) and 1:1-3 (for intensive care units). Similarly, pate (2015) stated that average Doctor-Patient ratio of 1: 53,333 and Nurse- patient ratio of 1:1,066. According to (WHO,2010) a Doctor should see 30 patients per day and a nurse to four patients ratio. Nursing World(2015) stated that The nurse-to-patient ratio for day shifts in the general wards in the public hospitals was 1:5 in 2014, as compared to 1:8 in 2004.

2.1.7 Clients' Satisfaction with focused antenatal care services

Patient satisfaction has traditionally been linked to the quality of services given and the extent to which specific needs are met. Satisfied patients are likely to come back for the services and recommend services to others. Various factors including attitude of staff, cost of care, time spent at the hospital and doctor communication have been found to influence patient satisfaction in previous studies (Nweze, Enabor, Oluwasola, and Aimakhu, 2013).

A study conducted by Onwujekwe, Etiaba and Oche (2013) identified waiting time, time spent with doctors during consultation as influencing the level of patient satisfaction with healthcare services. Other factors that influence the level of satisfaction include the nature of patients' illness and patient perception of the hospital environment. Of the two-time based measures, time spent with the doctors during consultation is the most powerful determinant of the overall patient satisfaction. However, combination of long waiting times and short consultation times produced the lowest level of patient satisfaction and suggests that both measures are important.

In a study conducted by Sholeye, Abosede and Jeminusi (2013) on Are Women Satisfied with Antenatal Care Services at Primary Health Centers in Mushin, Lagos it was affirmed that 300 respondents, About (50.8%) of clients were very satisfied with the cost of services and the facilities' opening hours, while 43.5% as well as 44.1% were satisfied with the cost of services and opening hours respectively. A quarter (25.1%) of respondents were very satisfied with the waiting time, 44.1% were satisfied with it, while 30.4% were either dissatisfied or totally dissatisfied with the waiting time

In a study conducted by Olufemi,Oladapo, Christianah, Iyaniwura, AdewaleandSule-Odu (2008) on Quality of Antenatal Services at the Primary Care Level in Southwest Nigeria confirmed that 457 respondents, (96.7%) of the respondents expressed satisfaction with the way their care providers were monitoring their health and that of their unborn babies. A total of 419 (92.7%) respondents were satisfied with the level of expertise demonstrated by their antenatal care providers.

In a study conducted by Harriet and Onyango-Ouma(2013) on Acceptability and Sustainability of the WHO Focused Antenatal Care package in Kenya describes clients' satisfaction with various aspects of ANC. Clients in the intervention clinics were more

dissatisfied with the waiting time than any other aspect of focused ANC, and consistently across all four visits with more than 50 percent of clients indicating their dissatisfaction during each visit. Satisfaction ratings were high (>70 percent) for all other aspects of ANC in the intervention and comparison clinics. In a study conducted by Nnebue, Ebenebe, Adinma, Iyoke, Obionu, and Ilika (2014) 0n knowledge, perception and satisfaction with quality of maternal health care services at the primary health care level in Nnewi, Nigeria affirmed that 480 respondent, Nearly, all but one of the discussants was satisfied with the services received. On the reasons for their satisfaction, some discussants mentioned the low cost of services in the health facilities as well as use of local language, compared to the hospitals around. Others said: "The drugs and money for registration cards are cheaper here." "They also give us free drugs when it is available." "They attend to us well, that is why we are still coming."

In a study conducted by Fantaye, Fessahaye and ,Desta (2014) on Satisfaction with focused antenatal care service and associated factors among pregnant women attending focused antenatal care at health centers in Jimma town found that 389 respondents, More than half of the respondents (60.4%) were satisfied with the service that they received. As to specific components, most of the respondents (80.7%) were satisfied with interpersonal aspects, and 62.2% were satisfied with organization of health care aspect. Meanwhile, 49.9% of the respondents were not satisfied with technical quality aspect and 67.1% were not satisfied with physical environment aspect. Multivariate logistic regression analysis result showed that type of health center, educational status of mother, monthly income of the family, type of pregnancy and history of stillbirth were the predictors of the level of satisfaction. The study found out that dissatisfaction was high in mothers utilizing service at

Jimma health center, in mothers with tertiary educational level, in mothers with average monthly family income >1000birr, in mothers with unplanned pregnancy and in mothers with history of stillbirth

In a study conducted by Argago, Woldemichael, and Kitila (2014) on Client's satisfaction with family planning services and associated factors among family planning users in Hossana Town Public Health Facilities, South Ethiopia found that 324 respondents, This study showed that about one forth (24.7%) of the clients were not satisfied with the service they had received. As to obstetrics related variables, 41 (12.7%) of them had history of abortion, 305 (94.1%) received the method they wanted, 68 (21%) of clients experienced side effects on method they were using, 80 (24.7%) had an unwanted pregnancy, 243 (75%) of the clients were informed on side effects of methods, and 295 (91%) were told how to use the method and their function, 301 (92%) reported that they were politely treated by the service providers and 271 (83.6%) reported that their privacy was maintained. 287 (88.6%) said the way they were handled by supportive staffs was good, 189 (58.3%), 106 (32.7%) of them waited from 30 min to 1 h. The mean waiting time was 26 minutes. Regarding the level of satisfaction in four different categories, namely, technical competence, accessibility of the health services, interpersonal component, and cleanness of health facilities, the majority (88.3%) of the participants were satisfied on cleanness of health facilities, but fewer participants were satisfied with technical aspect of health providers (70.1%).

2.2 Service quality

Is a comparison of expectations about a service with performance?

After extensive research, Zeithaml, Parasuraman and Berry.(2008) found five dimensions customers use when evaluating service quality. They named their survey instrument

SERVQUAL. These dimensions defined by the SERVQUAL measurement instrument are as follows:

i) Tangibles

One dimension of service quality has to do with the tangibles of the service. Tangibles are the physical features of the service being provided, such as the appearance of the building, cleanliness of the facilities, and the appearance of the personnel. Going to a restaurant and finding that your table and silverware are dirty would negatively impact your assessment of the service quality. On the other hand, walking into a beautifully decorated, clean restaurant with impeccably dressed wait staff would positively affect your opinion of the service.

ii) Reliability

Another dimension of service quality is the reliability of the service. Reliability refers to the ability to provide the service as it was promised on a regular basis. It is very important that businesses are able to fulfill the service that they advertise. For example, if you own a pizza restaurant and promise to deliver a pizza within 30 minutes, you must consistently provide that service in order to meet your customers' expectations and be considered a reliable business.

iii) **Responsiveness**

Responding to customers in a timely manner is another dimension that affects service quality. It is very important that businesses are prepared to respond to customers quickly. For example, if a customer calls a store with a complaint about a product they purchased, they shouldn't be left on hold for an hour before being connected to a manager. The call should be taken promptly and with a sense of urgency.

iv) Assurance

Another dimension that plays role in service quality is assurance. Customers have to be able to trust that service providers are knowledgeable about the service they are providing. Let's say you go to a wine bar to try some different wines, but when you ask your server some questions about the wines being served, they don't know any of the answers. It's reasonable to expect that the staff would have some knowledge about wines, so if they didn't, this would definitely have an impact on your view of the service quality.

v) **Empathy** - to what extend the employees care and give individual attention.

2.3 Quality of Care

Quality of care is important and complicated issue to define and measure (Donabedian, 1966). It is mistaken often incorrectly as goodness or luxury (Donabedian, 1980).

2.3.1 Definition of quality of care

There are many definitions of quality of care, but the Institute of Medicine (IOM)(2001) Define it as "The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

Donabedian (1988) defined quality of care as the care that meets the information, emotional, and physical needs of patients in a way that is consistent with their preferences and expectations.

2.3.2 Quality of health care

The Institute of Medicine,(2001) defines health care quality as "the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

2.3.3 Dimensions of quality of care

The dimensions of service quality care are as follows:

- Effective, delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need
- Efficient, delivering health care in a manner which maximizes resource use and avoids waste; Accessible, delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need.
- Acceptable/patient centered, delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities.
- Equitable, delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status.
- Safe, delivering health care which minimizes risks and harm to service users WHO,(2006).

2.4 Nurses Roles for Focused Antenatal Care

John, Kufre, and Charls (2011) outlined the role of health care provider for focused antenatal care as follows;

- Care from a skilled health provider and continuity of care.
- Detection and early treatment of conditions that could severely affect maternal and fetal well-being such as HIV, syphilis and other sexual transmitted infections, malaria, tuberculosis, malnutrition and severe anemia, vaginal bleeding, hypertensive disorders, malpositions after 36 weeks, and fetal distress.
- Preventive interventions which include; tetanus toxoid prophylaxis, iron and folate supplementation, intermittent preventive treatment for malaria, presumptive treatment for hookworm, vitamin A supplementation, and iodine supplementation,
- Counseling and health promotion on; recognition of danger signs during pregnancy and labour and appropriate action to be taken, importance of good nutrition, risk of alcoholism and substance abuse, adequate rest during pregnancy, family planning, breast-feeding, and HIV prevention.
- Preparation for childbirth and complication readiness: the skilled provider and the woman should plan for the following: a skill provider to be present at the birth, the place of delivery and how to get there, items needed for delivery, need to save money in order to meet financial commitments/bills during childbirth, support during and after childbirth, and appropriate response in case of life-threatening complications: this will include a person designated to make decision on her behalf, in case she is indisposed, a way to communicate with a source of help, a source of

emergency funds, emergency transportation, and blood donors also, USAID, (2009) Stated the following as the activities of health care provider for focused antenatal care;

2.4.1 Quick Check

General appearance, gait, and asking general screening questions

2.4.2 History taking

• Personal information

• Medical history- Medication, allergies, HIV status

• Surgical history

• Obstetrics and gynecological history

• Family and social history

• Immunization

2.4.3 Physical Examination

When conducting physical examination, have the woman remain seated or lying down and relaxed:

General examination

• Take blood pressure, weight, height, pulse, temperature (if indicated) and respiration

• Check for pallor (conjunctiva, palms)

• Breasts and lymph nodes examination

Genital inspection

Female Genital Mutilation

Sores, swelling, discharge

PV Bleeding.

2.4.4 Abdominal Examination:

Inspection: Surface of abdomen (scars, movement with respiration, and shape of the abdomen)

Palpation:

• Palpate for fundal height from 12 weeks of gestation age

• Fetal parts and movements from 20 weeks of gestation

• Fetal lie and presentation is of concern from 36 weeks of gestation.

(Abnormal lie or/and presentation if observed from 36 weeks is more unlikely to change therefore decide appropriately for a place of birth)

• Fetal heart sound from 24 weeks of gestation.

• Genital inspection

Female Genital Mutilation

Sores, swelling, discharge

PV Bleeding

2.4.5 Laboratory investigations

• Urine test for albumin and sugars

• Hb

• Blood grouping and Rhesus factor

• VDRL/RPR for syphilis screening

• HIV testing

• CD4 count if indicated

• Blood examination for malaria parasites where indicated.

2.4.6 Decision Making

• Interprets information from client's history, physical examination and laboratory investigations and deciding on the care to be given

2.4.7Documentation

The health care personnel should record all clients' information in his folder.

2.4.8 Calculation of EDD

• Know the first date of the Last Normal Menstrual Period (LNMP)

• Add 7 days to the date

• Subtract 3 months from the months (if the month is above March)

• Add 9 months to the month if the month is below April

• Add 1 to the year if it is above April.

2.5 Empirical Studies

In a study by (WHO,2013) on trial on antenatal care where it was discovered that more frequent visits (of the traditional antenatal care approach) do not necessarily improve pregnancy outcomes and advocate a minimum of 4 visits for pregnancies without complications scheduled as First visit: within 16 weeks or when woman first thinks she is pregnant, Second visit: At 20 - 24 weeks or at least once in second trimester, Third visit: At 28 - 32 weeks and Fourth visit: At 36 weeks or later. Limited resources of developing countries like Nigeria can be redirected to give better quality antenatal care services across the recommended four visits.

Amosu, Degun, Thomas, Olanrewaju, Babalola, Omeonu and Olao, (2011) Stated that Kenya's Ministry of Health adopted the goal-directed ante-natal care package, which is

the focused ante-natal care model, to promote maternal child health in the Kenyan context. The study done in this country showed that focused ante-natal care is acceptable to both client and providers and is supported by government.

Nyarko, Birungi, Armar-klemesu, Arhinful and Deganus, (2006) Stated that the Government of Ghana adopted the WHO focused ante-natal care model in a move to improve access, service quality and continuity of ante-natal care services to pregnant women. Clients and providers accepted the model because of its comprehensiveness and individualized care. Clients appreciated the individualized care approach and privacy during service delivery In South Africa the study done by (Chege, Askew, Mosery, Nbude, Kunene, Beksinska, & Dalton, 2005) in KwaZulu-Natal informed that clinic preparedness was good in terms of infrastructure and equipment. Although staffing levels were adequate, the clinics fell short in number of qualified and skilled staff due to their migration to developed countries. On the whole there was no detrimental effect on staff morale. Clinic preparedness to offer focused ante-natal care reduced staff concerns about the working conditions. Client satisfaction was already high so no new change was observed (Chege et al 2005).

In Gambia study conducted by (Ojo, 2014) showed that pregnant women are ill equipped to make appropriate choices especially when they are in danger. Information, health education and communication during ante-natal care were noted to be poor. All this was assumed to contribute to the persistence of high mortality ratios in the country. The Ministry of Health believes that the introduction of the focused ante-natal care service will improve the situation because nurses will be interacting with women following the guidelines.

In a study on women's opinions on ante-natal care services conducted in Thailand and Cuba some of the women expressed that they value the information they get from the service providers during the implementation of the focused ante-natal care 29 services (Nigenda, Langer,Kuchaisit, Romero, Rojas, Al-Osimy, 2003).

A study done in Tanzania showed that a more focused and client-centred application of risk assessment is needed (Ikeoluwapo, Damilola, Osakinle, 2013). Focused ante-natal care was introduced in Tanzania when it was most needed because the medical approach of ANC categorizing pregnant women according to risk factors already showed that it was not working. In 2002 the Ministry of Health of the United Republic of Tanzania therefore developed a national adaptation plan based on the model of the WHO (Johson, 2015).

In Nigeria, a study by Fantaye**,** FessahayeandDesta, (2014) in southwest reported that about 42.0% of respondent believed FANC is most important at first pregnancy while 9.9%, 5.9%, and 42.3% said ANC is most important at 2nd, 3rd and after 3rd pregnancy respectively. The study also revealed that 72% of females were not at all satisfied with the accessibility of the service as regard to location of the center in spite of being from the catchment area of the center and this is probably due to the long distance between the center and the nearest residential area.

In a study conducted by Sarah, Britt, Dereje, Abebe , Abebech, Henrik and Vibeke (2014) on Antenatal Care Strengthening in Jimma, Ethiopia Affirmed that respondent of 1364 Predictors of being not satisfied with the service, as reported by 1132 ANC attendants who had given birth within the previous 12 months in the Jimma area1, with odds ratios (OR) and 95% confidence intervals (CI) The measurement of satisfaction with care in the survey was relevant as an overall assessment of the women's evaluations of the care received; however,

satisfaction has previously been shown to be dependent on the expectations towards care, and, for example, primigravida as might have difficulties knowing what to expect from ANC. In this study, a relatively small proportion of women reported being not satisfied with ANC, and this might be due to underreporting dissatisfaction, as respondents tend to report favorably on questions of perceived quality of care or satisfaction

Research has shown by Agency for Healthcare Research and Quality (2012) that science-based measures can be used to assess quality for various conditions and for specific types of care.

In a study conducted by Muhammad, Majrooh, Seema, Javaid, Arif , and Zahid (2014) on Coverage and Quality of Antenatal Care Provided at Primary Health Care Facilities in the 'Punjab' Province of 'Pakistan. Found that the study finding revealed that overall 51.6% of the expected pregnancies first time reported for the ANC and out of those 33% didn't return back for follow-up. These findings straight way revealed that there is a gap of about 50% in the coverage of ANC services in the Punjab. The dropout in follow-up indicates the poor quality of the services that are annoying the clients not to return back for follow-up services. The overall coverage indicated in this study is very closer to that (57%) claimed by the HMIS cell Punjab in DHIS report of 2010 and MICS 2007–2008, that is about (53%)]. This study was focused on rural areas and there was no opportunity for urban comparison but inequity in provision of ANC services to rural population have been reported in the literature]. The variation in coverage is associated with the number of standard ANC visits in assessment criteria e.g. in a study conducted in Alwar district of Rajasthan state, India, the practices of 3 or more ANC visits were lower in rural (36.1%) as compared to (71.4%) in urban areas].Fifty percent ANC-1 registration of clients does not mean that the services are

fulfilling quality of ANC services. It is just a registration figures. Although WHO recommends four ANC visits for every pregnant woman but the facility register contains only two columns one for the first visit and the other for revisits.

In a study conducted by Fantaye, Fessahaye, Desta (2014) 0n Satisfaction with focused antenatal care service and associated factors among pregnant women attending focused antenatal care at health centers in Jimma affirmed that more than half of the respondents (60.4%) were satisfied with the service that they received. As to specific components, most of the respondents (80.7%) were satisfied with interpersonal aspects, and 62.2% were satisfied with organization of health care aspect. Meanwhile, 49.9% of the respondents were not satisfied with technical quality aspect and 67.1% were not satisfied with physical environment aspect. Multivariate logistic regression analysis result showed that type of health center, educational status of mother, monthly income of the family, type of pregnancy and history of stillbirth were the predictors of the level of satisfaction. The study found out that dissatisfaction was high in mothers utilizing service at Jimma health center, in mothers with tertiary educational level, in mothers with average monthly family income >1000 birr, in mothers with unplanned pregnancy and in mothers with history of stillbirth. Even though greater percentages of women (60.4%) were satisfied with the focused antenatal care service, the level of satisfaction was lower compared to other studies.

A study conducted to examine the implementation challenges of maternal health care services in the Tamale Metropolis of Ghana revealed inadequate in-service training, limited knowledge of health policies by midwives, increased workload, risks of infection, low motivation, inadequate labour wards, problems with transportation, and difficulties in

following the procurement act, among others as some of the challenges confronting the successful implementation of the MDGs targeting maternal and child health in the Tamale Metropolis (Banchani & Tenkorang, 2014)

In a study conducted by Adeniyi and Erhabor,(2015) found that Measurement of blood pressure and receiving iron supplementation were the most commonly offered ANC component in Nigeria with 91.0 % each while Only 4.6 % of women received good quality of ANC while nearly 1.0 % did not receive any of the components. About 11.3 % of the attendees had minimum acceptable quality of ANC. Receipt of good quality ANC services was higher among users who initiated ANC early, had at least 4 ANC visits, attended to by skilled health workers, attended government and private hospitals and clinics. Higher odds of receiving good quality of ANC were found among users who live in urban areas, having higher educational attainment, belonging to households in upper wealth quintiles and attended to by skilled ANC provider.

2.6 Summary

The previous pages are the available review of literature and it covers focused antenatal care, service quality and conceptual frame work

According to this literature review, quality is now recognized as a planning tool for achieving effective and improved performance in antenatal service sectors.

2.7 Theoretical Frame Work

The theoretical framework of this study is modified from the literature of Donabedian (1980). Avedis Donabedian was a pioneer who developed a basic framework to assess the quality of care.

The Donabedian Model (1980) is a conceptual model that provides a framework for examining health services and evaluating quality of care. According to the model, information about quality of care can be drawn from three categories: “structure,” “process,” and “outcomes."



Figure 2.1The Donabedian Model (1980)

First, Structure.—Structure denotes the attributes of the settings in which care occurs. This includes the attributes of material resources (such as facilities, equipment, and money), of human resources (such as the number and qualifications of personnel), and of organizational structure (such as medical staff organization, methods of peer review, and methods of reimbursement).

Second, Process.—Process denotes what is actually done in giving and receiving care. It includes the patient's activities in seeking care and carrying it out as well as the practitioner's activities in making a diagnosis and recommending or implementing treatment.

Finally, Outcome.—Outcome denotes the effects of care on the health status of patients and populations. Improvements in the patient's knowledge and salutary changes in the

patient's behavior are included under a broad definition of health status, and so is the degree of the patient's satisfaction with care.

2.7.1 Application of Donabedian Model

Donabedian system model emphasizes on three major elements: 1-structure,2-Process and 3-output. The model explains the relationship between the three elements: structure, process and output.

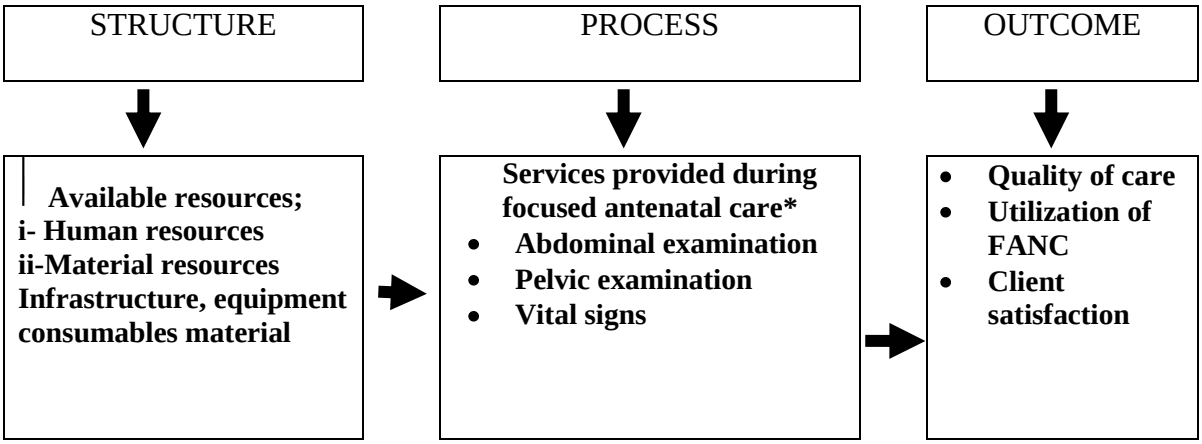


Figure 2.2 Application of Donabedian model

In this study the model will be applied by the same way:

- Structure Represents Manpower, hospital policies regarding practice, equipments, infrastructure, consumables materials and in-service training unit.
- Process- It represents processing which explain how input is put to use effectively and efficiently to yield output. The processing represents Midwives, Doctors, Nurses and CHEW actions in rendering focused antenatal care services such as utilizing of

nursing care during Focused antenatal care services, Vaginal examination and waiting time.

- Output – Explains the effect seen after complete care has been rendered to the pregnant women such as satisfaction, morbidity and mortality.

2.7.2 Rational for the selection of this model

The model was selected because:

i-It was easy, relevant and applicable to the research work in assessing the service quality of Focused Antenatal Care through: input, process and output.

ii- The model is seen as depending on the attainment of the aspired outputs/outcomes, it shows satisfactory quantity of service of focused antenatal care depends on quality input.

iii- The model is easy to apply to get a better outcome for focused antenatal care. An important technical aspect of the instrumental effectiveness perspective is the model of establishing the added value of care.

iv- Analysing the inputs, processes and outcomes will give equal or "fair" distribution of resources and utilization among pregnant women with different characteristics, equity is the primary facet of judging service quality.

CHAPTER THREE

MATERIALS AND METHODS

3.0 Introduction

This chapter discussed them methodological research design, population of the study, sample and sampling techniques, instrumentation, ethical consideration, procedure for data collection, and statistical techniques. The aim of this study was to assess service quality of focused antenatal care in Bauchi State.

3.1 Research Design

The design used in the study was a descriptive cross-sectional design, quantitative parameter was used. A cross sectional study allows information about the target population to be obtained at that point in time, a descriptive study allowed collection of data that would provide answers on the current status of care (Kothari, 2004). This design was suitable because it explored all the necessary information regarding the study objectives and covered a good number of the target population to allow generalization of the information.

3.2. Study Area/setting

The study Area was Bauchi state. It is a state in northern Nigeria. Its capital is the city of Bauchi. The state was formed in 1976. It occupies a total land area of 49,119 km² representing about 5.3% of Nigeria's total land mass and is located between latitudes 9° 3' and 12° 3' north and longitudes 8° 50' and 11° east. It has twenty local governments and has a projected population of 6,007,327 using population growth rate of 3.2% (national population commission, 2016) reference to the 2006 census. From total population above 0.05% is (300,366.4) considered as the population of pregnant women in Bauchi State

(WHO,2012).The State is bordered by seven States, Kano and Jigawa to the north, Taraba and Plateau to the south, Gombe and Yobe to the east and Kaduna to the west.

Bauchi State is one of the States in the northern part of Nigeria that span two distinctive vegetation zones, namely, the Sudan savannah and the Sahel savannah. Bauchi State has a total of 55 tribal groups in which majority of the people in the State Understand Hausa language. There are cultural similarities in people's language, occupational practices, festivals, dress and there is a high degree of ethnic interaction especially in marriage and economic existence.

Bauchi State was divided into three senatorial districts namely: South Senatorial District which has seven Local Governments, North Senatorial District which also has seven Local Governments and Central Senatorial District which has six Local Governments making a total of twenty Local governments. Each Local Government has a secondary health facility and two tertiary health facilities from south and north senatorial districts making a total of twenty two health facilities in the state affiliated to ministry of health Bauchi State. These twenty two health facilities provide all the reproductive health services.(Appendix iii) The staff running the work composed of Doctors, Midwives, Nurses and Community extension workers.

3.3 Target Population

The population of the study comprises of all pregnant women (300,366.4) attended focused antenatal clinic in Secondary and Tertiary hospitals in Bauchi State from May to August, 2016.

3.4 Sample size

A total of 384 pregnant women were recruited from a total population of 300,366.4. This selection is in accordance with krejcie and Morgan (1970) who stressed that (if the total population of the study is between 75,000 to 1,000,000 sample size will be 384).(Appendix iv)

3.5 Inclusion criteria:

- All normal pregnant women who reported for focused antenatal care and delivered at least once.
- Those who consented.

3.6 Exclusion Criteria:

- All women of high risk and primigravida
- Clients that refused to participate in the research were excluded
- Those who declined participation.

3.7 Sampling Technique

Multi-stage sampling technique was used.

Stage i. Bauchi State was taken as a unit

Stage ii. Bauchi State was divided in to three Senatorial Districts

Stage iii. Local Governments of each Senatorial District were used as follows; Bauchi south Senatorial District has seven Local Governments, Bauchi Central Senatorial District has six Local Governments and Bauchi North has seven Local Governments making total of twenty Local Governments in the State.

All the Local Governments in the three Senatorial districts were used and all facilities that render focused antenatal care services in all Local Government were purposively selected.

3.8 Sample Size Distribution

Sample was distributed to each facility based on proportion of the number of pregnant women that attended the facility for FANCs. Using a sample size (384) divided by total number of utilization (53770) multiply by each variable's number.

Table 3.1 Sample Size Determination and distribution according to the total population

S/N	Local Government	Facility	FANC utilization May.-Aug.2016.	Sampled
1	Dass	Gen. Hospital	3160	23
2	Bauchi	Gen. Hospital	4770	34
3		Teaching Hospital	5200	37
4	Katagum	FMC Azare	1080	8
5		Gen. HospitalAzare	3340	24
6	Tafawa Balewa	Gen. Hospital	1120	8
7	Toro	Gen. Hospital	3980	28
8	Alkaleri	Gen. Hospital	2130	15
9	Warji	Gen. Hospital	1620	12
10	Ningi	Gen. Hospital	1980	14
11	Darazo	Gen. Hospital	2180	16
12	Giade	Gen. Hospital	1120	8
13	Shira	Gen. Hospital	1400	10
14	Jama'are	Gen. Hospital	2100	15
15	ItasGadau	Gen. Hospital	3180	23
16	Zaki	Gen. Hospital	3000	21
17	Gamawa	Gen. Hospital	1660	12
18	Kirfi	Gen. Hospital	1780	13
19	Dambam	Gen. Hospital	3000	21
20	Misau	Gen. Hospital	2250	16
21	Ganjuwa	Gen. Hospital	2100	15
22	Bogoro	Gen. Hospital	1620	11
TOTAL			53770	384

3.9 Tools / Instrumentation for data collection

Two main tools were used for data collection namely;

A) Semi structured interview questionnaire

B) Observational Checklist

1) **Semi structured interview questionnaire;** It was developed by the researcher and has three sections as follows;

Section one: Socio-demographic Characteristics of the respondents to collect the socio-demographic characteristics of the pregnant women. It has four items namely: Age, Ethnicity, level of education and parity of the respondents.

Section two: Utilization of focused antenatal care by pregnant women; to measure prevalence of service utilization. It consists of ten items. Examples: proximity of Antenatal clinic, months of present pregnancy at first visit and number of times of FANC visits in previous pregnancy.

Section three: Client's satisfaction with focused antenatal care services; to measure the level of clients' satisfaction with focused antenatal care service quality. It composed of twelve items. The scoring system was ranked between high and low scale;

- Very satisfied scale =4
- Satisfied =3
- Dissatisfied=2 and
- Very Dissatisfied=1

Levels of satisfaction: 3.5-4 points high satisfaction, 2.5-3 points moderate satisfaction and below 2.5 points low satisfaction.

2) **Observational Checklist**; It is adapted from WHO, (2014) and has four sections namely;

Section one: Availability of materials resources for focused antenatal care; to determine the available material for focused antenatal care. It composed of the five items namely; physical infrastructure, equipments, drugs, supply of consumables and health education.

Section two: Capacity of human resources for focused antennal care; it consists of five items namely; Adequacy of the staff; qualification of the staff; supervision of the staff; skills of the staff; and in-service training for the staff.

Scoring for health personnel per facility was calculated by using number of Health personnel in each facility divided by the total number of studied facilities representing twenty two (22).

Section three: The services of focused antenatal care; it composed of the 14 items, the services were categorized in to three namely; done satisfactory, done not satisfied and not done and percentage of each was calculated.

3.10 Validity of the instrument

A draft questionnaire along with abridge copy of the work and objectives were prepared and submitted to the researcher's supervisors and jury of five who specialized in the following fields: community medicine, community health nursing, Administration, Education and Statistician Comments, corrections and suggestions made were duly effected to give the face and content validity for the instruments. Kelinger (2003) remarked that validation by specialists is an effective method for content validity of research instrument.

3.11 Ethical Consideration

An official permission to conduct the research study was obtained from ethical committee ministry of Health of Bauchi State. Participation in the study was voluntary and the ethical issue considered includes; explaining the purpose and nature of the study, confidentiality and there was no risk of participation. The researcher informed the trainee that the purpose of the study was for academics and will be confidential.

3.12 Method of data collection

- A letter of introduction from the Department of nursing Sciences, Ahmadu Bello University Zaria was collected and taken to the Ministry of Health Bauchi State
- . Official permission and ethical clearance were taken from ministry of health Bauchi State before questionnaires were administered.
- Five research assistances were recruited from primary health facilities
- Research assistances were instructed and train on how to administer the questionnaires and fill the checklist to ensure the objectiveness of the data.
- The researcher introduced the research assistance to the health personnel of the studied facilities.
- Oral consent was taken from the Clients that had the right to participate or not to participate in the research.
- The aim of the research was explained to the clients.
- The researcher wrote the list of the health facilities that render FANC services. Purpose of the research was explained to the respondents.
- Questionnaires were administered to the pregnant women individually upon their consent. Respondent that could not read and write or understand English, each statements of the questionnaire was translated to the Hausa language by the research assistance and recorded it in English Language.
- Respondents were discouraged to discuss their responses to the questions among themselves so as to determine their individual level of satisfaction with Focused Antenatal Care Services.
- All pregnant women were thanked for their contribution

- All data collected were kept in confidentiality
- The observational checklist was used to evaluate material, human resources and service quality for Focused Antenatal Care services.
- Three hundred and eighty four (384) Questionnaires were distributed and three hundred and seventy six (376) were returned.
- SPSS version 23 was used in data analysis.

3.13 Method of Data Analysis

The Data collected from the respondents were coded and entered in to the Statistical package for Social Sciences (SPSS) Version 23. The Data were presented using descriptive statistic in the form of Frequency Distribution, Percentages and Mean.

CHAPTER FOUR

RESULTS

4.0 Introduction

The study is primarily aimed at assessment of service quality of focused antenatal care in Bauchi State. A total of 376 pregnant women responded to the instrument and were analyzed. A statistical Package for Social Sciences (SPSS) Version IBM23 was used for the analysis which was presented in six (6) Sections as follows:

Section one: Socio-demographic data,

Section two: Availability of materials resources for focused antenatal care,

Section three: Capacity of human resources for focused antennal care,

Section four: The provision of focused antenatal care services, level of focused antenatal Care services

Section five: Utilization of focused antenatal care by pregnant women

Section six: Level of client's satisfaction with focused antenatal care services. A total of five research questions were answered using the descriptive statistics of means and percentages.

In each set of items that answer the research question a cumulative mean is obtained and compared with the decision/cut off mean of 2.5 which was computed based on the modified 4 Likert scale.

Section one: Socio-demographic Characteristic

Table 4.1 Distribution of the pregnant women according to their socio-demographic characteristics. n=376

Variables		F	%
Age			
• 18		19	5.0
• 19-34		47	13.0
• >35		301	80.0
Ethnic Group	Mean age 26.5		
• Hausa		249	66.2
• Igbo		23	6.1
• Yoruba		27	7.2
• Kanuri		38	10.1
• Jarawa		19	5.1
• Seyawa		20	5.3
Education			
• Informal education		34	9.0
• Primary School		106	28.2
• Secondary School		171	45.5
• Tertiary education		65	17.3
Parity			
• 1-3 times		78	21
• 4-5 times		118	31
• 6-7 times		92	25
• >7 times		88	23
•			

In relation to respondents age Table (1) shows that the majority of respondents (80 %) 301 were above 35 years, while 47 respondents (13%) were between 19-34 years, the mean age was (30 years old).With regards to the ethnicity also the same table shows that more than half of the respondents (66.2%) 249 of them were Hausa/Fulani while 34% divided among Igbo ,Yoruba, Kanuri, Jarawa, Seyawa 6.1%,7.2% 10.1%, 5.1% and 5.3% respectively. With regards to education all level almost half of the respondents 45.5% had secondary school education, only 9% had informal education, while 28.2% and 17.3% had primary school and tertiary education respectively. Less than half of the respondent 118(31%) were pregnant eight times, 92(25%) were pregnant six time in previous pregnancy, 88(23%) of the respondents were pregnant four times and 78(21%) were pregnant four times.

Section two: Availability of material resources

Table 4.2 Distribution of the availability of material resources and supply by observational check list in the studied facilities. **n=22**

Variables	Available and Functioning		Available not functioning		Not Available	
	N	%	N	%	N	%
• Waiting area with seat for patients	16	73	6	27	0	0
• Counseling room with table and two chairs	2	9	3	14	17	77
• A locked storage cupboard for drugs	15	68	2	9	5	23
• Patient's toilet	4	18	18	82	0	0
• Staff toilet	18	82	4	18	0	0
• Source of water (portable)	6	27	10	46	6	27
• Electricity	16	73	6	27	0	0
• Reliable source of light	4	18	18	82	0	0
• Examination Equipments	5	23	2	9	15	68
• Drugs	19	86	1	5	2	9
• Sustainable Supply of Consumables	4	18	4	18	18	82
• Aggregate percentage	43		31		26	

Table 4.2 Distribution of the availability of material resources in the studied facilities shows that: Among the examined 22 secondary and tertiary health care facilities the data revealed that: The available and functioning material resources had aggregate percentage of 43% while a total of 57% not functioning and not available. Showed shortage of material resources for focused Antenatal Care Services in the studied facilities

Section three: capacity of human resources

Table 4.3 Distribution of qualification, characteristics and the number of the health care providers in studied facilities **N=22**

Variables	F	%	Availability Per each facility
Health care providers			
• Doctor	18	13.8	.81
• Nurse	11	8.5	.50
• Midwife	61	46.9	2.7
• CHEW	40	30.8	1.8
Qualification of staff			
• Certificate	41	31.5	1.8
• Diploma	71	54.6	3.2
• Post degree	7	5.4	.3
• Degree	11	8.5	.5
Consistent monitoring/ supervision of services			
• Supervised	13	10	.5
• Not supervised	117	90	5.3
In-services training in each facility			
• Available	7	32	.31
• Not available	15	68	.68

Adequacy per each facility is calculated by dividing the number of personnel by total number of studied facilities (22).

Table 4.3 Distribution of the number and qualification of the health care providers shows that number of health care providers in each facility were inadequate in Doctors, Nurses, Midwives and CHEW with 0.81, 0.5, 2.7 and 1.8 respectively per facility, Compared to the WHO standard of doctors 1:30, Nurses 1:5, midwives 1:5 and CHEW 1:600. The highest number of qualification of the health providers is Diploma 71 and the least is post degree 7.

Majority of the health care providers (68%) were not supervised. With regards to in-service training majority of the health facilities do not have in-service training.

Section four: provision of focused antenatal care services

Table 4.4 Distribution of quality of focused antenatal care services in the studied facilities by observational check list. **(N=376)**

Variables	Done Satisfactory		Done Not Satisfactory		Not Done	
Focused antenatal care Services	F	%	F	%	F	%
• Weighing client	301	80.1	54	14.3	21	5.6
• Taking blood pressure	211	56	94	25	71	19
• Tetanus toxoid vaccination	87	23	163	43	127	34
• Preventive anti-malarial medication	192	51	72	19	112	30
• Counseling for family planning	126	34	72	19	178	47
• Treatment of STI	261	69.5	73	19.4	42	11.1
• Blood test for syphilis	194	52	73	19	109	29
• Counseling on birth plan and emergency preparedness	207	55	109	29	60	16
• VCT for HIV/AIDS	198	53	71	19	107	28
• Blood test for anemia	252	67	54	14	70	19
• Urine test for protein sugar and acetone	297	79	78	21	1	0.2
• PMTCT	50	13	53	14	273	73
• TB screening and detection	271	72	54	14	51	14
• Aggregate percentage		54.2		20.8	F	25

Table 4.4 Weighting area had highest percentage 80.1 and PMTCT had the lowest percentage of 13. The focused antenatal care services that were done satisfactorily, done not satisfactory and not done had aggregate percentage of 54.2, 20.8 and 25 respectively.

Section five: Utilization of focused antenatal care services

Table 4.5 Distribution of the respondents according to the Utilization of focused antenatal care services in the studied facilities. **n=376**

Variables	F	%
Attend focused antenatal care regularly		
• Sometimes	76	20
• Always	300	80
Gestational age at first visit		
• 1st trimester	303	81
• 2nd trimester	62	16
• 3rd trimester	11	3
Pattern of focused antennal care after booking		
• Appointed days	287	76
• Only work days	49	13
• When I have complain	40	11
Number of visits the respondents received during the previous pregnancy		
• 4 times	183	49
• 3 times	102	27
• Twice	80	21
• Once	11	3
Pay a fee for focused antennal care		
• No	2	0.5
• Yes	374	99.5
The fee is affordable		
• No	103	27
• Yes	273	73
Proximity of focused antenatal care services		
• 1-2km	105	28
• 3-4km	153	41
• >5km	118	31

Table 4.5 shows that majority of the respondents 300 (80 %) attended ANC always while 76 (20%) sometimes, majority of the respondents 303(81%) booked for antenatal care in the first trimester, 62(16%) in the second trimester and 11 (3%) register in the third trimester. Only (76%) 287 attend on appointed days after booking, (13%) 49 attend on work days and (11%) 31 only when they have complaints.

Most of the respondents (41%) 153 had a distance of 3-4km from their homes to the facility, while 118 (31%) had the distance of greater than 5km from their homes to the facility and the remaining respondents 105 (28%) had distance of 1-2 km. Most of the respondents183 (49%) received focused antenatal care four times in their previous pregnancy, while 102(27%) received care three times in their previous pregnancy, 80(21%) received focused antenatal care twice, and only 11(3%) received focused antennal care once in their previous pregnancy. Majority of the respondent 374(99.5) paid for focused antenatal care services, only 2(0.5%) did not pay for the services provided .The payment for focused antenatal care was affordable to273(73%) of the respondents, only 103(27%) was not affordable to them.

Section six: Level of clients' satisfaction with focused antenatal care services

Table 4.6 Mean of the Level of clients' satisfaction with focused antenatal care services in the studied facilities **N=376**

Variables	Mean
Cleanliness of the facility	2.73
Seat of waiting area	1.32
Waiting time before seen by healthcare provider	2.45
Time taken	2.18
Time given to ask questions	2.82
The way health care provider answered my question	2.86
Confidentiality	2.00
Privacy	2.73
Treatment by healthcare provider	2.18
Examination and information provided	2.95
Cost of services	1.32
Focused antenatal care service	2.59
Aggregate mean satisfaction	2.34

Table 4.6 Seat of waiting area and Cost of services had lowest mean score of 1.32 each and Examination and information provided had the highest mean score of 2.95.The Aggregate mean satisfaction of 2.34 which is below the cut off mean of 2.5 showed that clients were dissatisfied with focused antenatal care services in the studied facilities.

Levels of Satisfaction:

- High Satisfaction3.5-4 Points
- Moderate Satisfaction 2.5-3 Points
- Low Satisfaction < 2.5 Points

CHAPTER FIVE

DISCUSSION

5.0 Introduction

The aim of the study was to assess service quality of focused antenatal care in the health facilities in Bauchi State. This chapter discusses the findings of the study, Summary, Conclusion, Recommendation, and Implication of the Study. It covered five research questions.

5.1 Discussion of the Findings

This study assessed the service quality of Focused Antenatal Care in Health Facilities in Bauchi State. The chapter discussed the results in relation to the socio demographic characteristics of the sample and the stated research questions:

5.2 Socio-demographic characteristics of the pregnant women

With regard to the age : more than three quarter of the respondents (80%) were above 35 years of age, this result was expected as the high fertility rate and the reproductive age of women in Nigeria. In (2013) Nigeria demographic survey Bauchi State has reported the largest number of pregnant women within this range. Also this agrees with the findings of Adeniyi and Erhabor , (2015) in the research titled : Assessment of quality of antenatal care services in Nigeria. They found that 51% of 13410 pregnant women who claimed to have used the ANC facilities at least once within five year preceding the 2013 Nigeria Demographic and Household Survey (NDHS), Were between age of 30-40. It also conforms to the findings of Yeoh, Hornetz and Dahlui (2016) in the research titled: Antenatal Care

Utilization and Content between low- Risk and High-Risk pregnant Women. They found that the majority of pregnant women (76%) are of 35 years and above. Similarly, with the study conducted by Vain, (2012) in the research titled: study on antenatal and delivery care utilization in urban and rural contexts in Vietnam found that more than half of the pregnant women were 35 years and above, In the same vain in a study conducted by Onasoga, Afolayan , and Oladimeij, (2012) in the research titled: Factors influencing utilization of antenatal care services among pregnant women in Ife, Nigeria. They found that 32.4% of 102 respondents were between 35-44 years of age, this shows that more than half of the respondents were at risk (35 years). This advanced of age of pregnant women may be due to the cultural practice of early marriage and malty parity within women in Northern Nigeria and or lack of knowledge among them about the risks of pregnancy in elderly women.

In relation to the parity: Half of the pregnant women (69%) were multi-parous (2-7 pregnancies). It is the same with the study of Nwagha and Anyaehie (2008) in Enugu, Nigeria that found majority of the respondents (62.07%) were multiparous. In the same vain Onasoga, Afolayan and,Oladimeji (2012) in Ife, Nigeria found that majority of the respondents (72.5%) were multiparous. It is also in line with the study of Emelumadu, Ukegbu, Ezeama, Kanu, Ifeadike and Onyeonoro (2014) in Anambara State. Found that majority of respondents (64.6%) were multiparous. Similarly, in a study conducted in Indonesia majority of the respondents (66%) were multiparous. It is also in the same line with the study of Grace,Oyin, Muyideen and Charles (2012) in Nigeria. They found that majority of the respondents (87%) were multiparous. It could be as a result of early marriage in the state that led to have more children.

5.3 Research Question one:

What is the Availability of material resources for focused antenatal care?

Materials resources is one of the important aspect to maintain high quality of antenatal care and has been identified as the main intervention strategy with the highest impact on maternal health (Chigozie, Achunam,Uzo, Prosper and Echendu, 2014).The result of this study; revealed that more than half of the materials resources in the studied facilities were not functioning (57%); only less than half (43%) were functioning. It is the same with the finding of (WHO,2014) that there was shortage of material resource for health care services in Africa. In the same vain Karin, Joanna, Flora, Constance, and Brigit (2011) Found shortage of material resources for focused antenatal care services in South-eastern Tanzania, Similarly, in a study conducted in Burkina Faso, Uganda and Tanzania by Paul, Gerhrd, Justin, Arinaitwe, Silva, Florian, Olaf and Malabiki (2011) found that health care workers in the three countries failed to perform most of the procedures stipulated in focused antenatal care due to the shortage of material resources for focused antenatal care services. In the same vain Angelo, Alise, David, Jaap , and Jos (2012) in Tanzania found that some essential equipment like sphygmomanometer were in poor quality leading to short durability contributing to the shortage.

Shortage of qualified staff and irregular supply of essential equipment, drugs and consumables were considered by 91% and 64% of the respondents respectively as the major underlying factors for substandard ANC. In the same vain Edmund, Emmanuel, Benjamin, and Benjamin (2015) in Enugu, Nigeria found that most facilities (77.8%) had inadequate water and power supply, as well as inadequate sanitary toilet facilities. In addition, 44.4% of the health facilities reported lacked basic equipment and some had no maintenance plan.

Ambulance service was available in only 11.1% of the facilities. Only 33% of the facilities could be accessed easily by public transportation. Stewardship was unsatisfactory as no facility had a regular work schedule for its workers, none had a copy of the Essential Drugs List, and only 22.2% of the facilities enjoyed community participation in planning and management. In the same line with Chinomnso, Uzo, Prosper and Achunam (2014) in Nnewi, Nigeria found that none of the health facilities is equipped with the minimum equipment package, essential drugs nor staff complements required enabling them offer quality maternal health services. Show that there was shortage of material resources for focused antenatal care services in Bauchi State.

This lacking in facilities had really affected the quality of care, It could be as a result of the services delivery point may not be open at the right time or supplies may not be adequate, as such, clients do not receive services of their choices or due to poor maintenance culture in the State or sub standard materials were used in the health facilities.

5.4 Research Question two:

What is the Capacity of Human resource for focused antenatal care?

While collectively the five main questions addressed in the study represent focused antenatal care affecting and affected by human resources practices, The result shows that the number of health care providers in each facility were inadequate in Doctors, Nurses, Midwives and CHEW in all of the 22 health facilities, Compared to the WHO standard of doctors 1:30, Nurses 1:5, midwives 1:5 and CHEW 1:600. It is the same with the finding of (WHO, 2014) that there were gross shortage of health personnel in African countries. In the same vain a study conducted by Robert, Sealy, Marshak, Manda, Gleason, and Mataya (2014)in Malawi

found that women complained that they often waited unnecessarily long for services because the workers worked slowly due to the shortage of health human resources for focused antenatal care services. Also, the World Health Organization (WHO,2014) estimates a shortage of almost 4.3 million physicians, midwives, nurses and support workers worldwide. Similarly, in a study conducted by Global Health Workforce alliance (2013) found that Health worker shortages affect Germany and the USA, just like they affect India or Uganda. Western countries 'import' workers from developing countries, because they are also short of trained health workers. In the same vain Merlin, Wim, Pierre ,Chiaka, Francis et al (2015) found that in Sudan, Mali and Uganda have a critical shortage of health workers. In all five countries, a minority of doctors, nurses and midwives are working in primary health care, and shortages of qualified staff are greatest in rural areas. In Uganda, shortages are greater in primary health care settings than at higher levels. In Mali, few community health centers have a midwife or a doctor. Even South Africa has a shortage of doctors in primary health care in poorer districts. It could be health personnel are available but may not be in adequate proportion with the catchment population, not skilled or not trained and retrained on the necessary skills required to offer the needed quality services, or there was no health care personnel motivation and job satisfaction in the state

5.6 Research Question three:

What is the level of quality services of Focused antenatal care?

FANC emphasizes the quality of ANC, rather than the frequency of antenatal visits. FANC is intended to reduce waiting times, increase the time spent educating women about pregnancy-related issues and promote the use of skilled assistance at birth (Babalola and Fatsui 2009; Gabrysch and Campbell 2009; WHO 2001)

Despite the multi-sectoral efforts to upturn the accessibility and quality of ANC services in Nigeria, the chances of achieving the MDGs was low WHO (2013). More than half of the services provided by the health care personnel (54.2%) were satisfactory. It is in line with the study of Gregory et al that found 91% of the respondents were satisfied with the services of Focused antenatal care provided for them. In the same vain with the study of (Chemir, 2014) found that 60.4% of the respondents were satisfied with the services provided for them. Similarly, in a study conducted in Lagos by Sholeye, Abosede, and Jeminusi (2013) found thatAlmost all (98.5%) respondents were satisfied with the Focused antenatal care services they received. In the same vain Joseph (2012) conducted a study in Ghana and found that the majority of the respondents (96.4%) were "willing to come back to the ANC clinics before delivery". The results further show that, 89.6% of the total respondents perceived the care they received as "quality" while 87.3% said they were generally satisfied with ANC services. It could be as a result of the majority of respondents had only secondary school education or it could be as a result of lack of exposure to the quality services due to the cultural practices of early marriage in the State.

5.7 Research Question four:

What is the utilization level of focused antenatal care among women?

Effective utilization of focused antenatal care (FANC) is associated with improved maternal and neonatal health

outcomes.(Bullough , Meda , Makowiecka , Ronsmans , Achadi & Hussein 2005) ;

Darmstadt, Bhutta ,Adam , Walker , & de Bernis 2005 ;WHO ,2005). The study

demonstrated that more than three quarters of the pregnant women (80%) attended

Focused Antenatal Care regularly while the remaining 20% occasionally attended the

focused antenatal care. It is in line with the study of Yeoh, Hornetz and Dahlui (2016) in United State of America that found large proportion of women (63%, 330/522) with "adequate-plus" or intensive ANC utilization, while 21% (107/522) of the women had "inadequate" utilization. This corroborates with the statement of WHO,(2001) that found 60% of women received antenatal care in Nigeria, and not all of them attended the antenatal clinic regularly. In the same vein, Kiplagat (2009) in Kenya found that 89.5% of the respondents reported that they could use the same facility for ANC during another pregnancy and 88.9% could recommend the facility to a relative or a friend for ANC checkups. Similarly, in a study conducted by Nicholas, Collins, Sabine (2012) in Zambia they found that 98% of the 4148 women in the Zambia attended ANC at least once and 94% attended at least once and saw a skilled health worker, only 60% had the recommended four antenatal visits and 58% received the recommended ANC of at least four visits with a skilled health worker. Only 19% of mothers who attended ANC had their first ANC visit in the first trimester, while 74% attended for the first time during the second trimester. Most mothers (72%) attended ANC at a health center and the vast majority (91%) received care from a nurse or midwife. In the same vain USAID (2009) In Tanzania found that of high antenatal attendance of pregnant women in various health facilities, maternal mortality rate remains high at 578 per 100,000 live births and infant mortality rate at 68 per 1,000 births, 94% of all pregnant women received antenatal care at least once from health professionals. May be due to proximity of their homes to the health facilities that made them to be regular or they were health educated on the importance of been regular on focused antenatal care.

5.8 Research Question five:

What is the Level of clients Satisfaction with Focused antenatal care services?

The result shows that the aggregate mean satisfaction was 2.34 which were below the cut off mean satisfaction of 2.5, showed that pregnant women had low satisfaction with focused antenatal care services in the studied facilities. In Ogun State Nigeria Oladapo, Iyaniwura and Sule-Odu (2013) found in their study that women attending antenatal clinics at these centers, in general, were satisfied with the quality of services received in spite of some inconsistencies between the received care and their expectations of the facilities. Besides the overall assessment of their perspectives on care received, this deduction was also made from the above average level of contentment with many elements of quality of antenatal care that were explored in the study. Also Chanthanom et al (2014) found that the quality of antenatal care services was poor due to lack of resources and providers limited skills that led to clients' dissatisfaction.. In the same vain In a study conducted by Harriet and Onyango-Ouma (2013) on Acceptability and Sustainability of the WHO Focused Antenatal Care package in Kenya described Clients in the intervention clinics were more dissatisfied with the waiting time than any other aspect of focused ANC, and consistently across all four visits with more than 50 percent of clients indicating their dissatisfaction during each visit. It is against the study of chemir ,Alemseged and Workneh (2014) who found that pregnant women were satisfied with FANC services. Similarly, in the study conducted by Fantaye, Fessahaye, Desta (2014) in Jimma Town of South West Ethiopia affirmed that More than half of the respondents (60.4%) were satisfied with the service that they received. As to specific components, most of the respondents (80.7%) were satisfied with interpersonal aspects, and 62.2% were satisfied with organization of health care aspect. Meanwhile, 49.9% of the respondents were not satisfied with technical quality aspect and 67.1% were

not satisfied with physical environment aspect. In the same vain Olufemi, Christianah, Iyaniwura and Adewale (2008) found that Four hundred and thirty seven (96.7%) of the respondents expressed satisfaction with the way their care providers were monitoring their health and that of their unborn babies in South-west Nigeria. Also, a study conducted by USAID (2004) found that the degree of satisfaction (percentages expressing satisfaction) ranged from as low as 7.1% regarding time spent in PHC centers, 24.5% regarding accessibility.

It is against the study that El-Sayed (2015) In Egypt found that one half of the pregnant women had moderate satisfaction score with antenatal care services. 53.6% of 420 pregnant women Egypt. Similarly, with the study of FehmidaShaheen, Tahira Khalid, NaylaZamir (2011) in Pakistan found that 76% ladies were satisfied with the time given by the doctor, and their communication skills but only 60% ladies were satisfied with the attitude of the doctors. Overall satisfaction in antenatal clinic was reported by 73% while 27% were either unsatisfied or uncertain. It could be due to the shortage of the health personnel to provide the quality services to the pregnant women that will make them satisfied with the focused antenatal care services in the state.

CHAPTER SIX

SUMMARY, CONCLUTION AND RECOMMENDATION

6.1 Summary

The aim of this study was to assess the service quality of focused antenatal care in Bauchi State. Five research objectives were formulated: as follows: To determine the availability of material resources for focused antenatal care, to assess the capacity of human resource for focused antenatal care in, To assess the quality services of focused antenatal care, to assess the utilization's level for Focused Antenatal Care services and to assess the level of clients' satisfaction with focused antenatal care services .A cross sectional descriptive design was adopted. A total of 376 samples of pregnant women that attended antenatal care in the twenty two health care facilities in Bauchi State were recruited during the period of first May to the end August, 2016. Two main instruments were used for data collection, self administered questionnaire and observational checklist. All ethical approvals were collected before conducting the research. Donebedian Bruce quality model (1980) was used as theoretical framework. The result revealed that Eighty percent of the respondents were over 35 years old, 66% of them were Hausa/Fulani, almost half of them had secondary school, and more than half of them had parity above six times. Eighty percent of the sample utilized focused antenatal care always. With the regard to the availability of material resources in twenty two health care facilities only (43%) was available and functioning. In relation to the human resources in comparing to the WHO (2014) standard they were shortage in Doctors, Nurses, Midwives, and Community Health Extension Workers 0.81,0.5, 2.7 and 1.8

respectively in each facility. In relation to quality of care in the studied health facilities was done satisfactory with aggregate mean percentage of 55.5%.The aggregate mean satisfaction with focused antenatal care services was 2.34 below the cut off mean satisfaction of 2.5. Clients satisfaction with treatment, examination and information provided by health care provider had highest mean scores of 3.29 and 3.30 respectively while cleanliness of the facility and seat of waiting area had lowest mean scores of 1.89 and 1.84 respectively. It can be concluded that: there were inadequate material resources, shortage of human resources for focused antenatal care Services, the services provided was not met the standard of WHO (2014), high utilization of focused antenatal care services and the client satisfaction was low .Based on the result the following were recommended: Ensure adequate material resources for focused antenatal care services in each facility in Bauchi State, Ensure adequate health care providers to improve quality focused antenatal care services, Periodic In-service training ,monitoring and evaluation to improve the quality services, Health education for the clients to increase the awareness and the importance of focused antenatal care and Regular assessment of the level of clients' satisfaction is needed to improve the lacking areas.

6.2 Conclusion

Based on the findings of the study the following conclusions were made;

- In comparing to the WHO (2014) standard for focused antenatal care, there were lacking in the availability of materials resources for Focused Antenatal Care Services.
- Shortage of human resources for Focused Antenatal Care Services.
- Satisfactory provision of quality care were provided
- Focused Antenatal Care Services was highly utilized and
- The level of client satisfaction with the Focused Antenatal Care Services was a little bit low.

6.3 Recommendation

Based on the findings the following were recommended:

- Government should ensure adequate material resources for focused antenatal care services in each facility in Bauchi State.
- Government should ensure adequate health care providers to improve quality focused antenatal care services.
- Government should ensure Periodic In-service training, monitoring and evaluation to improve the quality services.
- The results suggest that improving the content of care during ANC visits may foster adequate use of ANC and encourage early initiation of ANC visits. Furthermore, health promotion programmes need to further encourage male

involvement in pregnant women's decision to seek ANC to encourage adequate use of services and Health education for the clients to increase the awareness and the importance of focused antenatal care utilization.

- Government should ensure regular assessment of the level of clients' satisfaction is needed to improve the lacking areas.

6.4 Limitation

The study did not cover primary health facilities; it covered only secondary and tertiary facilities in the State.

6.5 Implication of the Study

Based on the findings, three implications were stated:

First, the result of this research will be useful to facilities, administrators and the ministry of health to provide them with existing conditions of focused antenatal care in Bauchi State.

Secondly, the study will serve as reference to level of clients' satisfaction in Bauchi State

Finally, this study will help others in conducting their research of same nature in different States.

The government has to discover the causes of lacking and shortage of the staff.

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Appendix i

DEPARTMENT OF NURSING SCIENCES

FACULTY OF MEDICINE,

AHMADU BELLO UNIVERSITY ZARIA

Dear respondents,

I am Msc student of the above named department conducting a research on **'ASSESSMENT OF SERVICE QUALITY OF FOCUSED ANTENATAL CARE IN BAUCHI STATE'**

Please read and answer the following questions, information obtained will be used strictly for academic purpose only and total confidentiality will be ensured

Section A: Socio-Demographic Data of the Respondents

Age in Years……

S/N	VARIABLES		Tick (√)
2.	**Ethnic Group**	Hausa/Fulani	
		Igbo	
		Yoruba	
		Others (Specify)	
3.	**Level of education**	No formal education	
		Primary School	
		Secondary School	
		Tertiary School	
4.	**Parity**	1-3 Times	
		4-5 Times	
		6-7 Times	
		>7 Times	

Section B; Availability of material resources (physical facilities, infrastructures) for maternal health care services (CHECKLIST)

Key; AF=A available and functional, ANF= available NOT functional, NA=Not available

ITEM	AF	ANF	NA
1)Physical infrastructure;			
a) A waiting area with sittings for clients			
b) An area for counseling that is private equipped with a table or desk and two chairs which is, not in waiting room			
c) A locked storage cupboard for drugs			
d) A toilet (indoor or outdoor latrine)that is regularly clean for clients			
e) A toilet (indoor or outdoor latrine) that is regularly clean for staff			
f) A roof that does not leak			
g) Water source and electricity;			
i)Access to portable water (running water or a well near health care facility			
ii)Electricity			
iii)A reliable source of light(Generator, Lantern, Torchlight etc)			
2) Equipments, different sizes of;			
a) Speculum			
b) Artery forceps			
c) Scissors			
d) Bowls			
e) Bed/Table			
f) Screens			

ITEM	AN	AE	NA
3) Drugs;			
a) Antibiotics			
b) Analgesics			
c) Anticonvulsant			
d) Antihypertensive			
e) Anti-inflammatory			
f) Haematenics			
4)Supply and consumables;			
a) Syringes			
b) cotton wool and Bandage			
c) stationeries			
d) Disinfectants and Antiseptic solutions			
e) Plaster and adhesives			
f) Handgloves			
5) Health education materials; An educational materials available for client			

KEY; AN=Available not expired, AE=Available and expired, NA= Not available

Section C; Services Provided During Focused Antenatal Care

Focused Antenatal Care Checklist												
	Weeks of gestation											
Parameters	1st Visit <16 weeks			2ND VISIT 20-24 Weeks			3RD VISIT 28 - 32 Weeks			4TH VISIT 36 Weeks		
	DS	DNS	ND	DS	DNS	ND	DS	DN	ND	DS	DNS	ND
Registration												
Comprehensive history taking												
Personal history												
Family history												
Social history												
Past medical/surgical history												
Past obstetric history												
History of current pregnancy												
History of complaints in current pregnancy												
Physical Examination												
Head-to-toe (whole body)												
Pallor												
Oedema												
Breast												
Lung and heart												
Observations and clinical investigations												
Temperature												
Pulse												
Blood pressure												
Weight												
Height												
Gait												
Obstetric examination												
Fundal height												
Foetal poles/lie												
Foetal presentation												
Engagement of presenting part												
Foetal heart sounds												
Pelvic (vaginal) examination												
Soft tissue assessment (genital ulcers, vaginal discharge, cervix, uterine enlargement position, adnexal masses)												
Bony pelvis assessment (cephalopelvic relationship)												
Laboratory investigations												
Blood												
Haemoglobin												
Grouping and rhesus factor												
VDRL for syphilis testing												
HIV testing (earliest opportunity)												
Urine												
Protein												
Sugar												
Acetone												
Drug Administration and immunization												
Iron												
Folic acid												

Key: DS=Done and Satisfied, DNS=Done Not Satisfied, ND=Not Done

Section D; **Capacity of Human Resources (CHECKLIST)**

VARIABLE	DOCTOR	NURSE	MIDWIFE	CHEW	CHO
1.Adequacy of staff in 24hours per week					
2.Qualifications of staff;					
a) Certificate					
b) Degree					
c) Post graduate degree					
3) Supervision of staff;					
4) Skills of staff;					
a)Competent					
b) competent but needs improvement					
d) Not competent					
5) In-service training for staff;					
a) Available and full					
b) Partially available					
c) Not available					

KEY; CHO=Community Health Officers, CHEW=Community Health Extension Workers. Adopted fromTukur,(2015)

Section E; Utilization of Focused Antenatal Care Services

1. Do you attend Focused Antenatal Care Services regularly
   a-Yes ☐ b-Sometimes c ☐ d-Never attended ☐
2. Proximity of Antenatal Clinic

   a-Working Distance ☐ b-One Bus ☐ c-Two or more Buses ☐

3. How many Months Pregnant were you when you first received Focused Antenatal Care Services(Booking)
   a-1-3 Months ☐ b-4-6 Months ☐ c-7-9 Months ☐
4. Pattern of Focused Antenatal Care after booking
   a- Appointment Days ☐ b-Only week Days ☐ c-When I have complaint ☐ d- I do not go at all ☐
5. Booking Days/Days of the week
   a-Throughout the week ☐ b-Only Week Days ☐ d-Anytime I ☐ like
6. Working Time (Time in the Day)
   a-In the Morning ☐ b-Anytime I want ☐ c-Not at all ☐
7. How many times in total did you receive Focused Antenatal Care Services during your previous pregnancy?
   a-Once ☐ b-Twice ☐ c-Thrice ☐ Fourth ☐

8. Did you pay for Focused Antenatal Care Services?

   a-Yes ☐ b- No ☐

9. If yes, was it affordable to you? a- Yes ☐ b-No ☐
10. How many times in total have you been pregnant (Whether the child was born alive or dead)
    a-Once ☐ b-Twice ☐ c-Thrice ☐ d-Fourth ☐
    e-Others Specify……-

Section F; Level of Clients' Satisfaction with Focused Antenatal Care Services

S/N	ITEM	VS	S	VDS	DS
1	Waiting time before seen by health Care provider				
2	Time taken with health care provider				
3	Treatment by health care provider (with respect)				
4	Seat of waiting area				
5	The way health provider handles my information (confidentiality)				
6	The cost incurred for the service				
7	Time given by health provider to ask question				
8	The way health provider answered my question (understood)				
9	Privacy (met the health provider privately)				
10	Examination services and information provided				
11	Cleanliness of the facility				
12	Focused antenatal care services provided today				

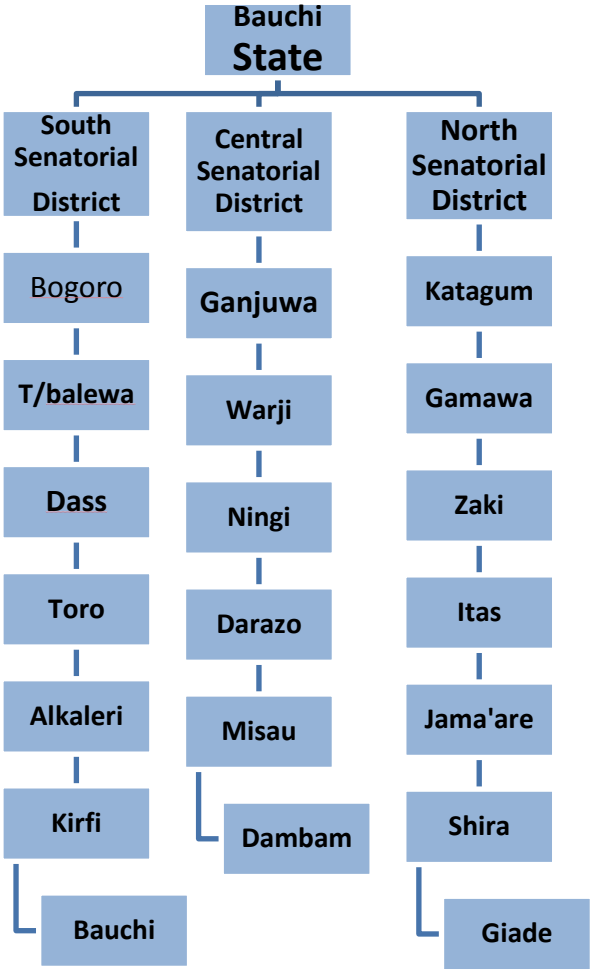
KEY; VS=VERY SATISFIED, S=SATISFIED, VD=VERY DISSATISFIED, D= DISSATISFIED

APPENDIX ii

Focused Antenatal Care Checklist (WHO,2014)				
	Weeks of gestation			
Parameters	1st Visit	2nd visit	3rd visit	4th visit
Registration				
Comprehensive history taking				
Personal history	X			
Family history	X			
Social history	X			
Past medical/surgical history	X			
Past obstetric history	X			
History of current pregnancy	X			
History of complaints in current pregnancy	X	X	X	X
Physical Examination				
Head-to-toe (whole body)	X	X	X	X
Pallor	X	X	X	X
Oedema	X	X	X	X
Breast	X	X	X	X
Lung and heart	X			
Observations and clinical investigations				
Temperature	X			
Pulse	X			
Blood pressure	X	X	X	X
Weight	X	X	X	X
Height	X			
Gait	X			
Obstetric examination				
Fundal height	X	X	X	X
Foetal poles/lie			X	X
Foetal presentation			X	X
Engagement of presenting part				X
Foetal heart sounds		X	X	X
Pelvic (vaginal) examination				
Soft tissue assessment (genital ulcers, vaginal discharge, cervix, uterine enlargement position, adnexal masses)	X			X
Bony pelvis assessment (cephalopelvic relationship)				X
Laboratory investigations				
Blood				
Haemoglobin	X			X
Grouping and rhesus factor				X
VDRL for syphilis testing				X
HIV testing (earliest opportunity)				X
Urine				
Protein	X	X	X	X
Sugar	X	X	X	X
Acetone	X	X	X	X
Drug Administration and immunization				
Iron	X	X	X	X
Folic acid	X	X	X	X

APPENDIX iii

Setting of Bauchi State



APPENDIX IV

Table for Determining Sample Size from a Given Population by Krejcie and Morgan(1970)

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384