ASSESSMENT OF QUALITY OF MIDWIVES' INTRAPARTUM CARE AND WOMEN SATISFACTION IN SECONDARY HEALTHCARE FACILITIES IN MAIDUGURI METROPOLIS, BORNO STATE NIGERIA

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POST GRADUATE STUDIES, AHMADU BELLO UNIVERSITY
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SEPTEMBER, 2018.

DECLARATION

I declare that the work in this dissertation entitled “Assessment of quality of Midwives’ Intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri Metropolis, Borno State Nigeria” has been performed by me in the Department of Nursing Sciences. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this Dissertation was previously presented for another degree or diploma at this or any institution.

Ahmed Fatima Ali	……..	……..
Name of Student	Signature	Date

CERTIFICATION

This Dissertation entitled "ASSESSMENT OF QUALITY OF MIDWIVES' INTRAPARTUM CARE AND WOMEN SATISFACTION IN SECONDARY HEALTHCARE FACILITIES IN MAIDUGURI METROPOLIS, BORNO STATE NIGERIA" by Fatima Ali AHMED meets the regulations governing the award of the degree of M.Sc Nursing Sciences of the Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This research work is dedicated to my family without whose prayers and support this program would not have been a success.

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ABSTRACT

Majority of the high maternal morbidities and mortalities in sub-Saharan Africa occur around the intrapartum period. These morbidities and mortalities although unpredictable, are treatable when diagnoses are made early and appropriate treatments are given. The aim of this study was to assess the quality of midwives' intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri metropolis, Borno state Nigeria. Five objectives were stated; to assess the available human resources (midwives) for intrapartum care, to assess the available material resources for intrapartum care, to assess the level of knowledge of midwives on intrapartum care, to assess the level of practice of midwives on intrapartum care and to assess the level of women satisfaction with intrapartum care. Donabedian framework was adopted for this study. A cross sectional descriptive research design was adopted for the study. Three secondary healthcare facilities in Maiduguri Metropolis were selected for data collection and a total of 43 midwives and 240 women were recruited in the study with response rate of 95%, 81% and 100% for knowledge, practice and satisfaction respectively. All the midwives were used for the study and convenient sampling technique was used to select the women for the study. Five tools were used for data collection, all privacy and confidentiality was maintained during the work and the data was collected from August to November, 2017.Results revealed that the mean age of the midwives was 35.2 years and 28.7 years for the women. The human resources were available but inadequate and material resources were available (42%) but inadequate for intrapartum care. According to the midwives' level of knowledge on intrapartum care, majority (78%) of the midwives have high level of knowledge. With regards their level of practice, 53.9% of the midwives' demonstrated high level of practice and 64.4% of the women were satisfied with the level of care during the intrapartum period with a mean of 2.4/4. Based on the findings, it can be concluded that the human resources and material resources were available but inadequate, midwives level of knowledge was high with good level of practice and women were satisfied. It was recommended that adequate human and material resources should be provided by the government to meet the ever increasing demands of the population and adequate in-service training for midwives to upgrade the techniques necessary to assess, evaluate and improve the quality of care rendered to women in labour.

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LIST OF ABBREVIATIONS

MSMH	Muhammad Shuwa memorial hospital
NDHS	Nigeria Health Demographic Survey
NPHCDA	National Primary Health Care Development Agency
SSH	State Specialist Hospital
USUMH	UmaruShehuUltra-Modern hospital
UN	United Nations
USAID	United States Agency for International Development
WHO	World Health Organization

OPERATIONAL DEFINITIONS

Assessment - the process of gathering information

Human resources – midwives providing intrapartum care

Intrapartum period –thetime from the onset of true labour to one hour after delivery

Intrapartum care–thecare the midwives provide to women during intrapartum period

Midwife - the person who is a certified midwife by Nursing and Midwifery Council of Nigeria (NMCN) who conduct and provide care during intrapartum period

Midwifery care–themidwife's intervention provided to women during labour and delivery

Maternal mortality – death of a mother due to childbirth complications

Material resources –physicalset-up, supplies, equipment and drugs needed for intrapartum care

Practice – the level of competency in carrying out care during intrapartum period

Quality–careprovided in an efficient and effective manner

Satisfaction –thedegree to which the woman is contented with the care received during intrapartum period

Standard quality of care–providingcare to women in labour and delivery in accordance with clinical guideline in order to obtain the best possible outcome

Women – mothers that had spontaneous onset of labour that led to delivery of live healthy babies

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Sustainable development goals are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. It is composed of seventeen goals. Goal three is to ensure healthy lives and promote well-being for all at all ages and the target is to reduce global maternal mortality ratio to less than 70 per 100,000 live births. The goal addresses all major health priorities including maternal and child health. It calls for more research and development, increased health financing and strengthened capacity of all countries in health risk reduction and management (United Nations (UN), 2016).

Every year about 287,000 women die of causes associated with childbirth (Srivastava, Avan, Rajbangshi and Bhattacharyya, 2015). Nigeria constitutes 1.7% of the world population and contributes 10% of the global burden of maternal deaths. Majority of the deaths occur around the delivery period (Igwebueze, 2015). The estimated maternal mortality is 576 per 100,000 live births (Nigeria Demographic and Health Survey (NDHS), 2013). And according to World Health Organization (WHO, 2015) Nigeria's maternal mortality is 814 per 100,000 live births. Northern Nigeria has the highest burden of maternal mortality in the country, with North east having the highest burden. Borno, out of the 19 northern states accounts for 20.6% of maternal deaths with maternal mortality ratio of 921/100,000 live births (National Primary Health Care Development Agency (NPHCDA) Report, 2014).

Quality is the degree to which maternal health services for individuals and populations increase the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights (Austin, Langer, Salam,Lassi, Das, and Bhutta, 2014). The elements of quality are accessibility, effectiveness, essential provision of supplies and equipments,

quality of client provider's interaction, equity, acceptability, comprehensiveness of care, continuity of care and follow up and support to healthcare providers (Abdallah, Elsabagh and El Wady, 2012). Quality of maternity care services means providing a minimum level of care to all pregnant women and their babies; obtaining the best possible outcome, maintaining sound managerial and financial performance. Also includes developing existing services in order to raise the standards of care provided to all women (Handady, Sakin and Alawad, 2015). The Institute of Medicine (IOM 1970) a United states National Academy of Sciences defined quality of care as the care that is safe, effective, patient-centered, timely, efficient and equitable. It encompasses three key components of quality: clinical (safe and effective), interpersonal (patient-centered) and contextual (timely, efficient and equitable) (Austin *et al*, 2014).

WHO (2016) developed eight (8) standards of quality of care which includes evidence based practices for routine care and management of complications, actionable information systems, functional referral systems, effective communication, respect and preservation of dignity, emotional support, competent, motivated human resources and essential physical resources available. If these standards are utilized, it will ultimately save mothers and their newborn lives thereby reducing maternal mortality and morbidity. Maternal mortality and morbidity statistics poorly reflect the quality of maternal health care services and assessment of the process of care is important (Hoogenboom, Thwin, Velink, Baaijens, Charrunwatthana, Nosten and McGready, 2015). The role of a midwife is to assist women in all stages of pregnancy, childbirth and post-delivery. They also work closely with obstetricians and gynaecologists in diagnosing and treating women with acute and chronic illnesses (WHO, 2016).

Labour is a time of women's unique sensitivity to environmental factors. Events and the interactions occurring during labour have powerful psychological effects, therefore a positive

childbirth experience is desirable for the benefit of both the parturient woman and her child (Andrzejewski and Lagua, 1997 in Mohammed, 2016). Studies have also confirmed that the intrapartum and postpartum nurse has often been the deciding factor of whether the woman has a positive or negative experience during childbirth (Chunuan, 2002 in Mohammed, 2016). The concept of quality during labour has recently been investigated extensively by the International health related organizations. Deficiencies in this field have been regarded as the major responsible factors hindering our reaching the goal of reducing maternal and Infant Mortality Rate (Bahri, Najar, Ebrahimipour, Askari and Bashiri, 2014). Quality of care during labour has by convention been measured in terms of mortality and morbidity in women and their newborns (Handady*et al*, 2015).

Quality care during labour includes monitoring labour with partograph, comprehensive emergency obstetric care services like parenteral antibiotics, uterotonic drugs, anticonvulsants, manual removal of retained placenta, operative deliveries and blood transfusion, prompt referrals to adult and newborn intensive care units are also important components of a quality labour care. Unfortunately, these services are not available in most communities of developing countries and even when they are available, the qualities of the services are very poor. The result is the unacceptably high maternal morbidity and mortality in developing countries like Nigeria (Igwebueze, 2015). As more births are occurring in healthcare facilities, there isn't much data to show if these facilities can cope with an increasing demand for obstetric care. These data are vital when planning and scaling-up labour services such as spontaneous vaginal delivery, delivery of placenta and retained products, providing parenteral antibiotics, oxytocics and anticonvulsants. A recent study suggests that poor facility quality may undermine efforts to reduce maternal and perinatal morbidity and mortality (Erim, Kolapo and Resch, 2012).

Women satisfaction in maternal-child nursing practice has been widely recognized as one of the critical indicators of the quality and the efficiency of the health care systems (Johansson *et al*, 2002 in Mohammed, 2016). Satisfaction is one of the most frequently reported outcome measures for quality of care and enhanced satisfaction has been identified as a goal for improvement in health care. Women's satisfaction with maternity services, especially with care during labour and birth, has become increasingly important to healthcare providers, administrators and policy makers (Handady*et al*, 2015). "Despite great efforts at global and country levels to increase birth attendance by a skilled provider, the quality of care provided by skilled birth attendants varies widely, and is often unknown (United States Agency International Development, USAID 2014)".

The concept of maternal satisfaction is a multidimensional construct, robust studies have shown that the processes of care (interpersonal, informative, and technical aspects) can influence maternal satisfaction. Recent studies in Sub-Saharan Africa have shown that maternal satisfaction with facility-based childbirth care was associated with various processes of care, accessibility to the health facility and the mothers' characteristics. A review study of maternal satisfaction with the childbirth experience found that demographic characteristics have little or no relationship with maternal satisfaction (Oikawa, Sonko, Faye, Ndiaye, Diadhiou, and Kondo, 2014).

1.2 Statement of Problem

Majority of the high maternal morbidities and mortalities in sub-Saharan Africa occur around the intrapartum period. These morbidities and mortalities although unpredictable, are treatable when diagnoses are made early and appropriate treatments are given (Igwebueze, 2015). Quality of midwifery care during delivery and immediate post-partum seems to be the crucial factor in explaining the disparity in maternal mortality between the developing countries and developed world. Only about one-third of births are assisted by trained

attendants in developing countries especially Africa as opposed to virtually 100% in developed countries. In Nigeria, the use of health facilities during intrapartum period by pregnant mothers is still very low (maybe as a result of health care providers attitude), and maternal morbidity and mortality remains a public health problem (Fekadu, Andualem and Yohannes, 2011). These morbidities and mortalities can be prevented and reduced through proper intrapartum care which is mainly provided by the midwives. Thus, the researcher noticed that assessment of quality of intrapartum care can lead to decrease in maternal mortality.

Borno State has some of the most challenging maternal and newborn health needs in Nigeria. The state out of the 19 northern states accounts for 20.6% of maternal deaths (NPHCDA report 2014) making it one of the state with the highest maternal mortality rate, due largely to inadequate maternal and child health services and the poor utilization of evidence-based maternity care by pregnant women. So far, there has been limited data documented on quality of care that predicts maternal satisfaction with intrapartum care. Despite the fact that the quality of care with labour and immediate services is essential for further improvement of maternal and child health little is known about the level of satisfaction with this service in Maiduguri.

Assessment of quality of intrapartum care has not been documented in Maiduguri, Borno state. The aim of the researcher is to fill this gap in knowledge and use the results as baseline quality indicator benchmarks to initiate and drive continuous quality improvement measures needed to enable us detect on time areas of poor quality so as to prevent further harm. In developing countries the emphasis has been the improvement of access to emergency obstetric care rather than the quality of maternity care. Again, little attention has been paid in evaluating the quality and practices of such care particularly for normal birth(Jeng, 2008). It is assumed that if health care personnel are equipped with the skills, knowledge and

equipment needed to use evidence-based knowledge during intrapartum care this will go a long way in reducing maternal morbidity and mortality (Jahn, Dar Lang, Shah and Diesfeld, 2000).

Women satisfaction with midwifery care is an important outcome of health care services, and achieving a high level of satisfaction is one of the goals of healthcare organizations (Bear and Bowers, 1998 in Mohammed, 2016). Women satisfaction is crucial for maintaining and monitoring the quality of midwifery care. In order to improve health care services, patient satisfaction with care should be surveyed (Fakhoury 1998, in Mohammed, 2016). It is very essential to gather information about quality of intrapartum care. Though antenatal and post natal care are also important, the intrapartum period is when most of the maternal and newborn deaths can be averted.

1.3Aim of the Study

The aim of this study was to assess the quality of midwives' intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri Metropolis, Borno state, Nigeria.

1.4Objectives of the Study

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

1. To determine the available human resources of intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, BornoState.
2. To determine the available material resources of intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, BornoState.
3. To assess the midwives' level of knowledge on intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, BornoState.
4. To assess the midwives' level of practice on intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, BornoState.

5. To explore the level of women satisfaction with intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, BornoState.

1.5 Research Questions

1. What are the available human resources for intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, Borno State?
2. What are the available material resources for intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, Borno State?
3. What is the midwives' level of knowledge on intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, Borno State?
4. What is the midwives' level of practice of on intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, Borno State?
5. What is the level of women satisfaction with intrapartum care in secondary healthcare facilities in Maiduguri Metropolis, Borno State?

1.6 Significance of the Study

Systematic assessment of quality of intrapartum care can be used to document and improve quality of care at the health facility level, thereby helping in deciding which aspects of care needs to be improved. This study identified the level of clients' satisfaction with intrapartum care, and provide a recommendation on an improved health service delivery that will be helpful to fill research knowledge gaps; ultimately contributing to enhanced quality of patient services in the hospital and improve the level of clients' satisfaction.It is expected that the results of the study would serve as an important tool for any possible intervention aimed at improving the quality of maternity care services in the state thereby reducing maternal mortality and the hospital management can use to improve the quality of care.

1.7 Scope of the study

The scope of this study was to assess the quality of midwives' intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri Metropolis, Borno State, Nigeria. It covers all the midwives working in the three secondary healthcare facilities in Maiduguri Metropolis and women that delivered there. The study was conducted from August to November, 2017.

CHAPTER TWO

REVIEW OF LITERATURE

2.0 Introduction

This chapter presents the available review of related literature, similar researches and studies. It covers the following sections:

2.1 Conceptual review

2.1.1 Concept of Quality of Care

2.1.1.1 Dimensions of Quality of Care

2.1.1.2 Standards of Care

2.1.1.3Indicators of Quality

2.1.2 Human and material resources

2.1.3 Concept of Labour

2.1.3.1Stages of Labour

2.1.4 Midwives Practices

2.1.5 Satisfaction

2.2 Empirical Studies

2.3 Theoretical Framework

2.4 Summary of the chapter

2.1 Conceptual Review

2.1.1 Concept of Quality of Care

Quality can be defined as a conformance to requirements. Also, it may be defined as doing the right thing right the first time and improving it every time **(**Abdallah, Elsabagh and El Awady 2012**)**. Quality can be a simple action to achieve desired objectives in the most efficient and effective manner with the emphasis on satisfying the client. It is a health service that is acceptable, accessible, efficient, effective, safe, cost savings and that's continuously evaluated and upgraded (World Health Organization, 2000).Quality assessment means "the process of measuring quality of care, including development of quality measures, implementation of quality measurement activities and monitoring of quality information over time to detect trends or to identify high-performance or low-performance" (Handady, Sakin and Alawad, 2015).Goodlee, 2009 in Austin *et al* 2014 defined quality care as "clinically effective, safe and a good experience for the patient". More specific to the field of maternal and child health, Hultonalso in Austin *et al* 2014 defined quality as "the degree to which maternal health services for individuals and populations increase the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights." Quality maternal and newborn care according to the Institute of Medicine (IOM) is the care that is safe, effective, patient-centered, timely, efficient and equitable. The Institute of Medicine defintion of quality care is comprehensive and encompases three key components of quality: *clinical* (safe and effective), *interpersonal* (patient-centered) and *contextual* (timely, efficient and equitable) (Austin, Langer, Salam, Lassi, Das and Bhutta, 2014).

Quality of care is a normative concept, in that measuring quality, or improvements in quality, demands a set of standards to guage the impact of quality improvement efforts. For example, there are evidence-based guidelines for best practice in maternal and newborn care, such as

those developed by the World Health Organization, or by the Royal College of Obstetrics and Gynecologists, among others. Adhering to best practice standards in clinical care would be the objective of any quality improvement effort.The Maternal Health Task Force (MHTF), the flagship program of the Women and Health Initiative at the Harvard School of Public Health, focuses its work on improving and measuring the quality of institutional care provided to women once they have accessed the health system. The work of the Maternal Health Task Force focuses on the third trimester, labor and delivery, as well as the immediate postpartum period, the most hazardous time for women and newborns. During this critical period, women and newborns face multiple risks: placenta praevia and other causes of pre and post-partum haemorrhage, pre-eclampsia/eclampsia, dystocia, infection, and other conditions that are most relevant in this timeframe. These conditions directly impact maternal and newborn survival. Effective detection and management of these complications require facility-based, skilled care (Austin *et al*, 2014).

Quality of care can be measured at three levels: the policy level; the service delivery level; and the client /outcome level. Outcomes have received special emphasis as a measure of quality. Assessing outcomes has merit both as an indicator of the effectiveness of different interventions and as part of a monitoring system directed to improving quality of care as well as detecting its deterioration. Quality assessment studies usually measure one of three types of outcomes: medical outcomes, costs, and client satisfaction. For the last mentioned, clients are asked to assess not their own health status after receiving care but their satisfaction with the services delivered (Abdallah *et al*, 2012). Quality aspects of maternity care:Maternity care services are different from other health care services in the following ways: 1. Most users of maternity care are well. Therefore, maternity services need to be conscious of over treatment as well as over - medicalizing pregnancy and childbirth, which can lead to complications and waste of resources. 2. Some users of the services will develop conditions requiring a high

level of maternity care. Many of these conditions are unpredictable and life threatening. Maternity services, therefore, need to be wary of under treating some women. 3. Maternity care services targets at least two recipients, the mother and the baby. Outcome of both are very important, so pros and cons for each should be counter balanced. 4. Maternity services deals with the cultural and emotionally sensitive area of childbirth. To ensure that maternity care services are of good quality, it is important to acknowledge and incorporate evidence-based practices in the care of labouring and delivering women in health institutions (Jeng, 2008).

2.1.1.1 Dimensions of Quality of Care

The World Health Organization identifies six dimensions for services delivered with quality, which are: i) Effectiveness—delivering health care that results in improved health outcomes for individuals and communities, ii) Efficiency—maximizing resource us, iii) Accessibility—delivering health care that is within reasonable geographic reach and available when needed, iv) Acceptability and patient-centeredness—taking into consideration preferences and cultures, v) Equitability—delivering health care that is of equal quality for all, vi) Safety—minimizing risk and harm **(**Arscott-Mills, Hobson, Ricca and Morgan, 2014**).**As quality of care is multidimensional, various models were used to prepare a conceptual framework to guide health care providers, managers and policy-makers in improving the quality of health services for mothers and newborns. Building on these models and the WHO health systems approach, a quality of care framework was designed by identifying domains that should be targeted to assess, improve and monitor care in health facilities in the context of the health system. The framework has eight domains of quality of care within the overall health system. Although it focuses on the care provided in facilities, it also accounts for the critical role of communities and service users in identifying their needs and preferences and in managing their own health (WHO, 2016).The six strategic areas for improving the quality of care and

ending preventable mortality and morbidity among mothers and newborns are research, guidelines, standards of care, effective intervention strategies, indicators for monitoring at global, national and facility levels and strengthening capacity for quality improvement, measurement and programming (WHO, 2016).

2.1.1.2 Standards of Care

A "standard" is defined as "a description of what is expected to be provided to achieve high-quality care around the time of childbirth". The standard of care has two main components: the quality statement and the quality measure. A quality statement sets out the requirements to achieve compliance with the standard and quality measures provide objective evidence for determining whether or not the requirements have been met. Quality statementsare concise statements of priorities for measurably improving quality of care around childbirth. They define the markers of quality derived from evidence on the thematic area and the resources required. Quality measuresare criteria for assessing, measuring and monitoring the quality of care as specified in the quality statement. They are of three types: i) *input*: what must be in place for the desired care to be provided (e.g. physical resources, human resources, policies, guidelines), ii) *output*: whether the desired process of care was provided as expected and *outcome*: the effect of the provision and experience of care on health and people-centred outcomes (WHO, 2016).

The standards of care cover the routine care and management of complications occurring for women and their babies during labour, childbirth and the early postnatal period, including those of small babies during the first week of life. They are centered on the woman, the newborn and the family and are applicable to all health facilities that offer maternity services. They are in line with World Health Organization (WHO) guidelines and designed to address the specific priorities identified in section. The standards of care provide a basis for what is

expected and required, support the monitoring and measurement of performance against measures of best practice in order to identify priorities for improvement and provide information on how best practice can be used to support high quality care or service delivery. They define priorities for improving the quality of maternal and newborn care for use by planners, managers and health care providers to:

- Prepare evidence-based national and subnational standards of care to ensure high-quality, effective maternal and neonatal health services around the time of childbirth;
- Introducethe expected standards of care and delivery in order to identify the components of care that require improvement to ensure high-quality service;
- Useavailable resources to achieve optimal health care outcomes and improve the use by and satisfaction of individuals, families and communities with maternal and neonatal health services;
- Monitorservice improvements, show that high-quality maternal and newborn care or services are being provided and highlight areas for improvement; and
- Providea benchmark for national health facility audits, accreditation and rewards for provider performance. They should be adopted and streamlined within national quality of care strategies and frameworks for the delivery of maternal and newborn health services to ensure that the services provided are of high quality (WHO, 2016).

Health facilities can only provide quality services if their physical infrastructure is matched with adequate and functional materials and supplies, if they have sufficient number of trained human resources that are performing up to standards, and if their target population is satisfied with the services and continue utilizing the services (Fissehe, Berhane, Worku and Terefe, 2017). Evidence-based practice research has demonstrated that obstetric care quality can be improved immensely if health care personnel adhere to a number of routine practices that are

evidence-based. For example active management of the third stage of labour is proven to be an effective strategy of preventing postpartum haemorrhage, which is one of the five leading cause of maternal deaths in the world. Another important intervention in the early detection and diagnosis of puerperal sepsis is the measurement of temperature during the intrapartum and postpartum periods. This simple intervention if applied may avert 15% of maternal deaths that occur globally due to sepsis. The lack of knowledge, Skills and standards can encourage the incorrect practices during the intrapartum period which may compromise the quality of care (Jeng, 2008).

2.1.1.3 Indicators of Quality

Structure: Structure measures evaluate the infrastructure of health care settings and whether those health care settings are able to deliver care. These measures include staffing of facilities and the capabilities of these staff, the policy environment in which care is delivered, and the availability of resources within an institution. Two key reasons for using structure measures are that characteristics of health care setting can significantly affect quality of care, and care settings that meet certain standards have an advantage when it comes to providing high quality of care.

Process: Process measures are used to determine the extent to which midwives consistently give women specific care that are consistent with recommended guidelines for care.

Outcome: outcome focuses on the end result or the effect of the care provided (Morris and Bailey, 2014).

2.1.2 Human and material resources

Human resources include the quantity and quality of health and non-health personnel employed for providing and supporting the delivery of care. The term also refers to the configuration of staff, levels of supervision, management styles, population based staffing ratios, and nature and frequency of staff training. Physical resources are the grounds,

buildings fixed and movable, medical and non-medical equipment, vehicles, furniture, medical and office supplies, pharmaceuticals and storage condition, and maintenance of physical assets. The term covers general hospital infrastructure including water and electricity supplies. The safe motherhood project in Nigeria draws attention to the fact that inadequate pay and benefits for health staff are frequently mentioned as determinants of poor quality of care. Effective provision of maternity services require that staff are managed and supported effectively in their roles. Delay in payment of salaries, excessive workloads and insensitive line management will promote an adverse professional environment. Conversely, efficient and responsive management of an institution will tend to enhance the quality of the working environment and motivate staff. Areas suitable for the application of quality standards related to human resources include safety at work, staff training and development, and the management of human resources. Staff require protection from risks associated with their work especially since they are exposed to large volumes of body fluids. Effective systems for staff appraisal linked to personal and professional development opportunities such as the availability of courses and in-service training are key to maintaining the quality of the human resource base. A woman's experience of care relates not only to the quality and appropriateness of the obstetric care she receives and her perception of the quality of that care, but also to her impression of the state of the infrastructure. Her experience of care also refers to her experience of actual contact time with qualified staff (Hulton, Matthews and Stones 2000).

Royal College of Obstetricians and Gynaecologists and Royal College of Midwives (2007)acknowledged the central role of the midwife as the expert autonomous practitioner in the care of women in normal labour, as well as the need for increased involvement of the consultant obstetrician in the labour ward in the care of women with complex or complicated pregnancies and in the supervision and education of medical staff. All professionals:

midwives, obstetricians, anaesthetists and paediatricians, must work together to agreed protocols to optimise the outcome for both the mother and her baby, especially in complicated pregnancies. Midwives are responsible for the immediate assessment of the baby after birth and for ensuring that babies are delivered in a safe, warm and clean environment. Their role in the immediate period after birth encompasses the care of the newborn, with responsibility for newborn resuscitation, the establishment of skin-to-skin contact, organisation of vitamin K prophylaxis and initiation of breastfeeding. Midwives are also responsible for alerting other team members, usually paediatricians, to potentially important aspects of the maternal or foetal history which may require urgent intervention (such as positive hepatitis serology, group B streptococcal carriage, foetal abnormality). Paediatric staff are responsible for arranging appropriate clinical management according to local protocols and guidelines. The role of the consultant obstetrician on the labour ward is to ensure a high standard of care for women and their babies with complex medical or obstetric needs and to be available for the acute, severe and often unpredictable life-threatening emergencies which are a feature of obstetric practice. Delivery of anaesthesia and analgesia is the mainstay of obstetric anaesthetic practice but it can only be done safely if the service is coordinated and organised. This requires a designated lead obstetric anaesthetist who takes responsibility for all aspects of the clinical service.

Nigeria has one of the largest stocks of human resources for health in Africa. Yet, it is still inadequate to meet the country's needs. In 2006, an inventory of health care personnel indicated 39 210 doctors (0.3 per 1000 population), 124 629 nurses (1.03 per 1000 population), 88 796 midwives (0.67 per 1000 population), 2482 dentists (0.02 per 1000 population) and 12 072 pharmacists (0.05 per 1000 population) for the year 2004, less than the minimum recommended by the World Health Organization. The main factors underlying human resources for health challenges in Nigeria include: (a) insufficiently resourced and

neglected health systems (b) poor human resources planning and management practices and structures (c) unsatisfactory working conditions characterized by heavy workloads, lack of professional autonomy, poor supervision and support, long working hours, unsafe workplaces, inadequate career structures, poor remuneration, poor access to needed supplies, tools and information, and limited or no access to professional development opportunities and (d) internal and international migration of health workers. These challenges have contributed to inequitable distribution of the existing health workforce with lower levels of care in rural areas, with the northern parts of the country particularly disadvantaged. In addition to challenges related to internal human resources for health mobility and inequities, Nigeria is also one of several major health workforce-exporting countries in Africa. Inadequate infrastructure, poor working conditions and poor compensation packages have contributed to the emigration from the country of a sizeable number of surgeons, physicians, nurses and other medical professionals. For example, health workers in Nigeria typically earn about 25% of what they would earn if they were working in North America, Europe or the Middle East (Eriki, Oyo-Ita, Odedo, Udoh, Omaswa and Kadama 2015). In 49 countries identified by WHO to be having insufficient density of doctors, nurses and midwives, Nigeria is in sixth position (Kozuki, Oseni, Mtimuni, Sethi, Rashidi, Kachale, Rawlins and Gupta 2017).

It is essential that, wherever women are giving birth in an obstetric unit, there should be adequate laboratory facilities, if not on site then within easy reach. Of particular importance is the availability of blood and blood products in case of major haemorrhage. Out-of-hours staffing may be difficult for many laboratories but it is essential that at least cross-matching services and blood clotting screens are readily available. Ultrasound should be available on the labour ward. This equipment should be capable of producing a good image and reliable measurements. An ultrasound examination during labour can be of vital importance, particularly for confirmation of presentation in obese women and those who are bleeding and

when there are concerns about foetal condition. This equipment may be used by both medical and midwifery staff, but only when personnel are appropriately trained. Operating theatres, anaesthetic rooms and recovery rooms should contain equipment to recognised standards for anaesthesia (Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, 2007).

One of the challenges facing developing countries, particularly in Africa, in achieving the Sustainable Development Goals (SDGs) is the availability of health human resources. Not only do these countries have a shortage of human resources, but their distribution is often uneven, especially between urban and rural areas (Ly,Kouanda&Ridde, 2014).There shall be no averaging of the number of patients and the total number of licensed nurses/midwives on the unit during any shift or over any period of time. Only licensed nurses/midwives providing direct patient care shall be included in the ratios. The licensed nurse/midwife-to-patient ratio in a labour and delivery suite of the perinatal service shall be 1:2 or fewer active labour patients at all times. When a licensed nurse is caring for antepartum patients who are not in active labour, the licensed nurse/midwife-to-patient ratio shall be 1:4 or fewer at all times. The licensed nurse/midwife-to-patient ratio in a postpartum area of the perinatal service shall be 1:4 mother-baby couplets or fewer at all times. In the event of multiple births, the total number of mothers plus infants assigned to a single licensed midwife shall never exceed eight. For postpartum areas in which the licensed midwife's assignment consists of mothers only, the licensed midwife-to-patient ratio shall be 1:6 or fewer at all times. The licensed midwife-to-patient ratio in a postpartum area of the perinatal service shall be 1:4 mother-baby couplets or fewer at all times. In the event of multiple births, the total number of mothers plus infants assigned to a single licensed nurse shall never exceed eight. For postpartum areas in which the licensed midwife's assignment consists of mothers only, the licensed midwife-to-patient ratio shall be 1:6 or fewer at all times. The licensed midwife-to-patient ratio in a

combined Labour/Delivery/Postpartum area of the perinatal service shall be 1:3 or fewer at all times the licensed nurse is caring for a patient combination of one woman in active labour and a postpartum mother and infant (Nursing Staff Service, 2003).

According to Australians midwife/patients ratio; two midwives: three delivery suites on each shift. While for ante/post-natal Midwife: patient ratio am - 1:4 plus one in-charge nurse, pm - 1:4 plus one in-charge nurse and on night duty - 1:6. Staff/patients ratio depends on the situation and patients flow (Fitzpatrick, 2014). In 2004, California enacted a nurse-to-patient ratio law. To this day, California is the only state with a nurse-to-patient ratio law. The intent of the law was to improve care for patients and although no consensus has yet been reached, studies have shown that the law has improved patient care in a variety of domains (Leigh, 2015).

2.1.3 Concept of Labour

Labour is the series of events by which uterine contractions and abdominal pressure expel a foetus and placenta from a woman's body. Regular contractions cause progressive dilatation (enlargement or widening of the cervical canal) and create sufficient muscular force to allow a baby to be pushed from the birth canal (or vagina). It is a time of change, both an ending and a beginning, for a woman, a foetus, and her family (Pillitteri, 2010). Labour is classified as false and true. False labour is a condition occurring during the latter weeks of some pregnancies in which irregular uterine contractions are felt, but the cervix is not affected. In contrast, true labour is characterized by contractions occurring at regular intervals that increase in frequency, duration, and intensity. True labour contractions bring about progressive cervical dilation and effacement (Ricci and Kyle, 2009).

2.1.3.1 Stages of Labour

The progress of cervical effacement, cervical dilatation, and descent of foetal presenting part dictate stages of labour.

1. The first stage of labour is divided into three sub-phases, namely: latent, active, and transitional phases. Latent (Preparatory) Phase starts from the onset of true labour contractions to 3 cm cervical dilatation. Active Phase starts from 4 cm cervical dilatation to 7 cm cervical dilatation. During this phase, contraction intensity is stronger, interval shortens, and duration lengthens. This is where true discomfort is first felt by the patient so she is dependent and her focus is on herself**.** Transition Phase starts from 8 cm cervical dilatation to 10 cm (full) cervical dilatation and full cervical effacement. During this time, patient may be exhausted and withdrawn or aggressive and restless. Patient's urge to push is noticeable.
2. Second Stage of Labour starts when cervical dilatation reaches 10 cm and ends when the baby is delivered. At this stage, the patient feels an uncontrollable urge to push. The patient may also experience temporary nausea together with increased restlessness and shaking of extremities. The midwife at this stage must coach quality pushing and support delivery.
3. Third Stage of Labour or the placental stage starts from birth of infant to delivery of placenta. It is divided into two separate phases: placental separation and placental expulsion. Five minutes after delivery of baby, the uterus begins to contract again, and placenta starts to separate from the contracting wall. Blood loss of 300-500 mL occurs as a normal consequence of placental separation. Placenta sinks to the lower uterine segment or upper vagina. The placenta is then expelled using gentle traction on the cord. Here are the signs of placental separation: Lengthening of umbilical cord, sudden

gush of vaginal blood, Change in the shape of uterus (globular in shape), Firm uterine contractionsand appearance of placenta in vaginal opening.

4. Fourth stage of labour begins with the birth of the placenta and ends one hour later. It marks the completion of the tasks associated with the first-three stages of labour. It is a critical time of recovery from the stress of labour and delivery and requires close observations of the mother and baby (Tabangcora, 2016).

2.1.4 Midwives' Practices

First Stage: During the latent phase of the first stage:

1. Assess woman's psychological readiness. Provide continuous maternal support
2. Measure duration of latent phase. For nulliparous, it should not be more than 6hours. On the other hand, for multiparas, it should be within 4.5 hours. Determine if patient received anaesthesia because it can prolong latent phase. One of the most common cause of prolonged latent phase is cephalopelvic disproportion (CPD) and it requires caesarean birth.
3. Allow patient to be continually active. Upright maternal positions are recommended for women on the first stage of labour. Patients without pregnancy complications can still walk around and make necessary birth preparations.
4. Conduct health teaching on breastfeeding, newborn care, and effective bearing down because during this time, patient's anxiety is controlled and she is able to focus on midwife's instructions.
5. Educate patient on different relaxation techniques. As early as this phase, encourage patient to begin alternative therapy of pain relief.
6. Ensure that the total number of internal examinations the woman receives in the entire course of labour is limited.

Active phase

1. Inform patient on the progress of her labour to lessen her anxiety and obtain her trust and cooperation.
2. Start monitoring progress of labour with the use of WHO partograph, 2-hour action line.
3. Encourage patient to be continually active to maximize the effect of uterine contractions. Upright maternal positions are recommended if tolerated.
4. Assist patient in assuming her position of comfort. For those who can't stay upright, left-side lying is recommended to avoid disruption in foetal oxygenation.
5. Monitor maternal vital signs and foetal heart rate every 2 hours, or depending on the doctor's order.
6. Determine when patient last voided because a full bladder can hinder fast labour progress.
7. Institute non-pharmacological pain measures (e.g. breathing exercises, distraction method, music therapy, etc).

Transition phase

1. Inform patient on progress of her labour.
2. Assist patient with pant-blow breathing.
3. Monitor maternal vital signs and foetal heart rate every 30 minutes -1 hour, or depending on the doctor's order. Contraction monitoring is also continued.
4. When perineal bulging is noticeable, prepare for delivery. The nurse should also notify staff and prepare necessary supplies and equipment, including resuscitation machine. Lastly, perform hand washing and double gloving.

WHO do not recommend the following nursing interventions during labour because they have low quality of evidence: Routine perineal shaving, Routine use of enema, Admission

cardiotocography (CTG) for low-risk women, vaginal douching, routine amniotomy for patients in spontaneous labour and massage and reflexology

Second stage of labour

1. Instruct patient on quality pushing. The abdominal muscles must aid the involuntary uterine contractions to deliver the baby out.
2. Provide a quiet environment for the patient to concentrate on bearing down.
3. Provide positive feedback as the patient pushes.
4. Position the woman for effective bearing down efforts
5. Take note of the time of delivery and proceed to initiate essential newborn care. Delayed cord clamping is recommended.
6. Prepare birth equipments
7. Protect self and staff with universal precautions.
8. Assist in restrictive episiotomy for patients who had vaginal births.

WHO do not recommend the perineal massage and use of fundal pressureduring delivery because they provide low quality of evidence.

Third stage of labour

1. Coach in relaxation for delivery of placenta.
2. Congratulate on delivery of baby.
3. Encourage skin-to-skin contact to facilitate bonding and early breastfeeding.
4. Ask patient whether placenta is important to them before it is destroyed. For those who want to take it home, ensure that they understand and follow standard infection precautions and hospital policy.
5. Administer prophylactic oxytocin as ordered.
6. Utilize controlled cord traction technique for placental expulsion.

7. Utilize absorbable synthetic suture materials (over chromic catgut) for primary repair of episiotomy or perineal lacerations.
8. Examination of the placenta
9. Assessment of the placenta
10. Records

For immediate postpartum, the midwife checks the vital signs and monitors for excessive bleeding. The first two hours after birth is sometimes referred to as the fourth stage of labor because this is the most critical period for the mother. The midwife is set to perform interventions that would prevent the patient from infection and hemorrhage. Also, they are being reminded of the importance of breastfeeding, ambulation, and newborn care.

Here are WHO recommendations for immediate postpartum:

1. Early (<6 hours) resumption of feeding for patients who have vaginal birth
2. Prophylactic antibiotics for women who sustained third to fourth degree of perineal tear during delivery
3. In healthy women who delivered vaginally to term infants, early postpartum discharge is recommended.

On the other hand, the following interventions are not recommended during immediate postpartum:

1. Routine use of ice packs
2. Oral methylergometrine for patients who delivered vaginally(Tabangcora, 2016).

Fourth stage of labour

The midwife's activities include the evaluation of the uterus, inspection and evaluation of the perineum, vagina and cervix, inspection and evaluation of the placenta, membranes and umbilical cord, repair of episiotomy and laceration if any, vital signs and other physiologic

manifestations are checked and initiation of family and mother-baby bonding and continual evaluation of the baby's vital signs. Throughout the remainder of the fourth stage of labour the mother's vital signs, uterus, bladder, lochia and perineum are monitored and evaluated. This monitoring is maintained until all are stabilized within normal range. The technique of monitoring should be organized and include the following: vital signs check, palpation of the fundus of the uterus for contractility, massage of the fundus and expression of clots and free blood from the uterus, measurement of the uterus in relation to the umbilicus, inspection of the perineum for discoloration and swelling, inspection of the bladder, inspection of the perineal pad and change if necessary and offering of food and fluids and comfort and safety measures (Jacob, 2012).

2.1.5 Satisfaction

Ware *et al* in Sawyer (2013) suggested that an individual's satisfaction with health care services is a "personal evaluation of health care services and providers". These evaluations reflect the personal preferences of the individual, the individual's expectations and the realities of the care received. Linder-Pelz and Struening in Sawyer (2013) also provided a similar definition noting that satisfaction comprises of "multiple evaluations of distinct aspects of healthcare which are determined in some way by the individual's perceptions, attitudes and comparison processes". This definition highlights the multidimensional nature of satisfaction. Assessing patient satisfaction with midwifery care is important in evaluating whether patients' needs are fulfilled and subsequently facilitating in the planning as well as implementing appropriate nursing interventions for patients. Determining factors contribute most to patient satisfaction can further assist midwives in improving the quality of midwifery care. Hence, patient satisfaction with midwifery care is an imperative determinant of quality of care particularly in the clinical/ healthcare facility settings (Tang, Soong and Lim, 2013). Also according to Srivastava, Avan, Rajbangshi and Bhattacharyya (2015) developing

countries account for 99 percent of maternal deaths annually. While increasing service availability and maintaining acceptable quality standards, it is important to assess maternal satisfaction with care in order to make it more responsive and culturally acceptable, ultimately leading to enhanced utilization and improved outcomes. At a time when global efforts to reduce maternal mortality have been stepped up, maternal satisfaction and its determinants also need to be addressed by developing country governments.

Determinants of satisfaction

Good physical environment and efficient management were significant in women's positive assessment of the health facility and maternal care services. These included good building infrastructure with water supply, electricity, beds, and cleanliness, adequate room space, seating arrangement and waiting areas. Mothers who rated the availability of services at the facility (a composite of waiting area, drinking water, clean toilet and waiting time) as 'good' were significantly more satisfied with care than those who rated the services as 'poor'. Efficient management improved patient's access to services and streamlined patient consultations. Cleanliness, good housekeeping services and maintenance of hygiene were reported as a determinants of satisfaction in studies in Bangladesh, Gambia, Thailand, India and Iran. Availability of doctors and nurses, especially during emergencies, was considered a prerequisite for good care in India and China. Non availability of nursing personnel and inadequacy of staff to attend to women, especially during labour, was reported as a cause for dissatisfaction with services in Ghana and Nigeria.Availability of prescription drugs, essential equipment like blood pressure monitors or thermometers, lab services and emergency supplies like blood and transfusion services, were reported as significant predictors of satisfaction with care. Occasional non-availability of essential medicines emerged as a cause for dissatisfaction with services in India and Nigeria. Difficulties in arranging for supplies

during emergencies, such as blood supply and transfusion services, were associated with dissatisfaction with care in Gambia.

Prompt attention is a significant determinant of maternal satisfaction. Prolonged waiting time is an important determinant of satisfaction with services and also figures prominently in women's recollections of deficiency in services in Argentina, Gambia, Iran, Malawi, Nigeria, Sri Lanka, Saudi Arabia and Uganda. Reducing waiting time was an important aspect for improving services in Bangladesh, India, Nigeria and Oman. In a study in Bangladesh, clients considered reducing waiting time more important than increasing consultation time. Evidence on interpersonal aspects of care as determinants of maternal satisfaction was generated in 22 studies from 18 countries. Being treated with dignity, respect and courtesy was a key determinant of maternal satisfaction. Therapeutic communication (listening, politeness, prompt pain relief, kindness, approachability and smiling demeanour), caring behaviour (attentive to needs, making clients feel accepted and coaxing clients) and interpersonal skills of staff (staff confidence and competence) were significant themes that were identified as influencing client's satisfaction with care in Ghana, Lebanon and Gambia. The use of praising words by the medical staff or by the obstetrician or midwife during delivery encouraged women and boosted their self-esteem, as reported in a study in Lebanon. In fact women chose to repeat the same provider for their next delivery if she was comforting and encouraging to them. On the other hand, staff unfriendliness, negative attitude and impatience was a major cause for dissatisfaction with services and avoidance of use in Nigeria, Zambia, Pakistan, Ghana and Turkey.

Privacy is a key requirement of women utilizing maternal care services, for physical examinations as well as the delivery process itself. Maintenance of privacy via a separate room or screen for examination or delivery was a significant determinant of satisfaction with maternal health services in Bangladesh and India. Lack of confidentiality during check-ups

and deliveries, on the other hand, caused dissatisfaction with services in Nigeria and Cuba. Provision of cognitive support through effective communication and sharing adequate information with women about their condition or the care required, emerged as a critical determinant of satisfaction with maternal care, as seen in studies in Ghana, Malawi, Nigeria and Iran. Maternal and newborn outcomes in terms of survival and health of mothers and newborns (for example, mother alive in spite of foetal loss; baby alive and healthy) affected satisfaction with care in Gambia, Ghana, India and Thailand (Srivastava *et al* 2015).

2.2 Empirical Studies

Fisseha, Berhane, Worku, and Terefe (2017) conducted a facility based survey on quality of delivery service in 32 health facilities in Northern Ethiopia.The findings revealed that 2 out of 32 (6.3%) of the study facilities fulfilled all the three quality components; input, process and output. Two of the three components were assessed as good in 11 of the 32 (34.4%) health facilities. The input quality was the better of the other quality components; which was good in 21 out of the 32 (65.6%) health facilities. The process and output quality was good in only 10 of the 32 (31.3%) facilities. They concluded that only 6.3% of the studied health facilities had good quality in all three dimensions of quality measures that was done in accordance to the national delivery service guidelines.

Handady, Sakin and Alawad(2015) conducteda cross sectional hospital based study at Omdurman Maternity Hospital Sudan. Findings revealed that only (47.5%) of patients were satisfied or very satisfied, (37%) were either dissatisfied or very dissatisfied, and (15.5%) were not particularly pleased or frustrated by intra partum care services. The communication in this study was found to be defective as about one third of the women felt that they were not welcomed.

Oyetunde and Nkwonta (2015) conducted a study on assessment of knowledge and utilization of active management of third stage of labour (AMTSL) by midwives in primary health centres (PHC) as well as the factors influencing the practice in Anambra state Nigeria. The result of the study showed that the majority of the respondents have high (66.7%) and moderate (28.2%) knowledge. Almost all respondents (78%) reported frequent practice of AMTSL but surprisingly on observation, they do not. Many practiced some segments of AMTSL like injection of oxytocin, early clamping and cutting of the cord and uterine massage.

Jeng (2008) conducted a study on the practices and quality of delivery care during childbirth in Royal Victoria Teaching Hospital delivery ward in The Gambia. His results revealed that harmful or non-beneficial practices were found to be common. Routine parenteral ergometrine prophylactic 92 (67.6%), manual exploration of the uterus 90 (66.1%), intravenous infusion 74 (54.4%) and labour augmentation with oxytocin 62 (45.5%) were common practices. Routine episiotomy without indications was also a norm. Standard beneficial practices such as assessment of vital observations of labouring women, infection control through application of universal precautions, prevention of hypothermia in the newborns and care provider-woman communication were disappointingly infrequent. Evidence-based-care was not often applied as claimed by health care personnel in the study labour ward. Unbeneficial practices such as strict policy on lithotomy position during delivery, routine labour augmentation with oxytocin and episiotomy for all women at first delivery were mentioned by care providers. From the women's point of view, valued practices like presence of a family member as support during labour and delivery, mobility during the first stage of labour and communication with care providers were restricted. Poor staff attitude was a prominent concern to postpartum women who delivered in the study site.

Empathy, patience and politeness care attitudes which women expect from care providers were lacking in the patient-provider interaction.

Daniel, Oyetunde and Eleri (2015) explored women's validation of the care midwives provide in the management of labour pain in Plateau state Nigeria. Their findings revealed that only 71(56.3%) of the women gave an average score to the midwives, 28(22.2%) said the nurses really gave them listening ears and reassured them that all will be well and 33(26.2%) said the interventions were very effective in helping them cope with the labour. Women validated their management of labour pain by midwives to be on the average.

Mohammad, Shaban, Homer and Creedy, 2014 investigated the prevalence and factors associated withsatisfaction during labour and birth. The result revealed only17.8% of women were satisfied with intrapartum care. Around 13% of women were satisfied withinterpersonal care, 20.5% with information and involvement in decision making, and 18.8% withphysical birth environment. Regression analyses revealed that low satisfaction was associated withexperiencing an episiotomy, poor pain relief during labour, and vaginal birth.

Tesfaye,Worku, Godana and Lindtjorn(2016), stated thatensuring patient satisfaction is an important means of secondary prevention of maternal mortality. Their study presents findings from a multidimensional study of client satisfaction in GamoGofa zone of southwest Ethiopia. Logistic regression was used to determine predictors of client satisfaction. The overall satisfaction level of the clients in the study was 79.1%. The presence of support persons during child birth improved client satisfaction and women who delivered with caesarean section are four times more likely satisfied than those who deliver vaginally. The study shows that overall satisfaction level is good.

Kigenyi, Tefera, Nabiwemba and Orach (2013) in their study on Quality of intrapartum care at Mulago national referral hospital, Uganda: clients' perspective. The overall mean index of

quality of care services was 49.4%. The findings of the study are consistent with the earlier studies conducted on quality and satisfaction with services. A study conducted at the Mulago hospital in outpatient clinics revealed that patient overall satisfaction with services was suboptimal, (mean score: 2.7) on a scale of (1 to 4).

In the survey by Maternal and Neonatal Program Effort Index (MNPI) conducted in Uganda, the average rating for delivery care services were at 55 out of 100. Uganda's ratings for maternal health services were lower than the global average in some key areas. In the current study, factors that influenced rating of quality of maternity and newborns care services during labour were several. Information flow between clients and medical staff was an important factor identified in our study as influencing quality of care. The percentage of clients given opportunity to ask questions or discussions in our study was 10%, clients whose information on care preferences obtained was 9%. This may explain why involvement in decision making had the least median index score of about 17% and information sharing with median index score of 42%. Possible explanation to this finding is the small number of medical staff in relation to large daily client load at the labour ward. As a result, this affects the client-provider interactions, health services delivered, health status of clients, and clients' satisfaction. Thus influencing clients' perspective on quality of care and eventually leading to sub-optimal quality for intrapartum care services in the hospital. Findings from a study conducted in the Gambia about quality of intrapartum care identified failure of health workers to inform women about procedures and involving clients in their own health care as a common practice (Kigenyi*et al* 2013).

Tang *et al* conducted astudy in Malaysia to assess patients' satisfaction with midwifery care using Patient Satisfaction with Midwifery care Scale (PSNCS) which was developed based on Cox's Interaction Model of Client Health Behaviour. The findings of this revealed that the patients rated their satisfaction of midwifery care as being at moderate level of satisfaction.

The majority of the patients were highly satisfied with the affective support showed by nurses which comprise of ‘respect’, ‘smile’ and ‘caring’. However, the patients were least satisfied with the aspect on ‘decisional control’ given to them such as ‘making own decision towards care’ and ‘family involvement with care’. There were no significant differences of patients’ satisfaction between age, gender and marital status. Interestingly, this study found a significant difference of patients’ satisfaction and ethnicity. Hence, determining the level of patient satisfaction and the contributing factors can assist nurses in improving midwifery care.

According to a study by Dzomeku (2011) on assessment of maternal satisfaction with care during labour. The study was conducted to assess the care and satisfaction of expectant mothers during labour, birthand lying-in period in Ghana. Findings established that multiple factors influences mother’s satisfaction with their care in labour, birth and lying in period and concluded that maternal satisfaction is mostly determined by the attitude of care givers and dissatisfaction with care leads to non-usage of the hospital in future or using the hospital only as a last resort.

Chunuan and Kochapakdee (2003) in a study on patient satisfaction with midwifery care received during the intrapartum period in obstetric units in selected regional hospital in Southern Thailand established that the majority of the post-partum women (68.8%) were moderately satisfied with midwifery care whereas almost 15% of them were dissatisfied with midwifery care. They established that variables such as mother’s expectation of baby gender, apgar score at 1minute, housekeeping, accessibility/convenience, finances, availability of resources, and stress are good predictors of patient satisfaction with midwifery care.

Rasheid and Ali (2010) also conducted a study on assessment of Nurse–Midwives' Knowledge and Practices towardSecond Stage of Labour in Iraq, a descriptive study was

carried out.The correlation coefficient was (0.90) for knowledge and (0.83) for practices. Data were collected through interview and observational tool and analyzed through the application of descriptive and inferential statistical approaches. Results revealed that there was a high mean of scores in nurse-midwives' knowledge and a low mean of scores for their practices in most of the items regarding second stage of labour.

Mohammed (2016) conducted a study on maternal satisfaction regarding quality of midwifery careduring labour and delivery in Sulaimani teaching hospital Iraq. The study findings indicates that women were satisfiedregarding their expectations of the childbirth process, length and holding their baby, support fromhusband and their relative, in addition they were strongly satisfied with items related to professionalsupport, environment and general satisfaction. The study concludes that the main factors identified asinfluencing satisfaction and dissatisfaction were, caregivers and client interaction, the characteristicsof the setting, the involvement of clients in the caring process, the nurses' perception of clientcharacteristics and the outcome of labour for both mother and baby.

Abdallah, Elsabagh and El Awady carried out a study mother's Satisfaction with the Quality Care Of Maternal & Child Health Services at Maternal and ChildHealth Centres in Zagazig City, Sharkia Governorate, Egypt. 16% of mothers visit the MCH for their immunization while the other causes were antenatal care was 42.7%, child birth services was 18.7%, immunization of the child was 6.1%, diarrhoea of the child was 7.1% and follow up was 2.2%. 83.2 of attended mothers feel easy accessibility while only 16.8 feel difficulty in dealing at MCH. The quality score for the structure was 7.8% and for performance was 63.4%. Users rating score about aspects of care in the MCH centers were high score.

Esienumoh, Okon, Ojong, Akpan,Armon and Whiley (2015) conducted a study onPerception and Practice of Midwife-Led Model of Care amongSkilled Birth Attendants in selected

Health Facilities in aSouthern State in Nigeria. Results showed that 79.2% had knowledge; 56% exhibited poorpractice of midwife-led care and they reported that midwives in the study setting are not functioning in their full capacity and competency as recommended by the International Confederation of Midwives and supported by the Nursing and Midwifery Council of Nigeria. The study seemed to present an image of a struggling midwifery force that is under a threat both intra and extra professionally as it appears that some midwives underestimate their capabilities and compromise their roles.

Malawian health facilities generally had proper equipment and supplies to provide appropriate intrapartum and immediate postpartum care, there was a scarcity of health workers relative to the catchment population of a facility. The burden of foetal and neonatal mortality and morbidity attributable to intrapartum-related complications is still high in Malawi. These gaps in quality of facility-based care will need to be revisited to make further progress in reducing the burden (kozuki, Oseni, Mtimuni, Sethi, Rashidi, Kachale, Rawlins and Gupta, 2017).

2.3 Theoretical Framework

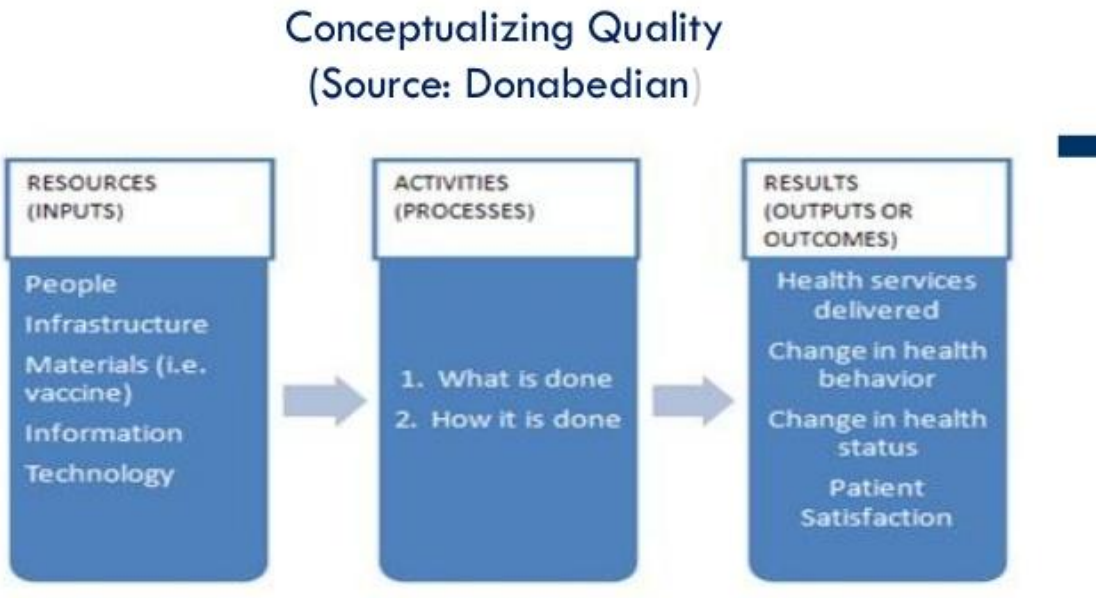


Figure 2.1: Quality of care (Donabedian, 2005)

Donabedian framework was adopted, it is one of the first systematic frameworks for the quality of healthcare services where he divided the production of quality services into structure, process and outcome. Structural measures gauge the degree to which a facility is prepared to deliver care in terms of necessary inputs and staffing. An Institute of Medicine report stated that structural measures include "the presumed capacity of the practitioner or provider to deliver quality health care. For health care professionals, this may include licensure, specialty board certification, and type of training. For facilities, they include government certification and private accreditation, physical attributes including safety, and policies and procedures." Process measures focus on the clinical content of care being delivered according to standards. This includes timely and accurate diagnosis, appropriate treatment, respectful care, and provision of information to clients. "Outcomes" refer to the health status and satisfaction of the clients served **(**Arscott-Mills, S. Hobson, R.D. Ricca, J. and Morgan, L.2014).

Donabedian (2005) suggests that evaluation of care can be conceptualized into three dimensions: structure, processes and outcomes. Structure refers to the setting in which care is delivered including adequate facilities and equipment, qualification of care providers, administration structure and operations of programs. Using this approach, good care settings and supporting structures contribute to good care. Structure variables are often concrete and accessible, making them relatively easy to assess. Process examines how care has been provided in terms of appropriateness, acceptability, completeness or competency. These measurements are typically have more grey area and are less definite than those obtained through assessing outcomes. Instruments that assess process variables are categorized under the following headings: communication, patient knowledge, performance appraisal and quality of care. Outcomes refer to the end points of care, such as improvement in function, recovery or survival. Outcomes are usually concrete and precisely measured. Some

drawbacks to using outcomes to evaluate care include: choosing a relevant outcome to measure and time lapse required for measurement. As well, there are outcomes like attitudes and satisfaction that are not precisely measured. Instruments that assess outcome variables are categorized under the following headings: patients, health providers and organization and health system.

This model was adopted for this study because all the essential components and elements of health care delivery system that are essential in quality care are well described. The description is a holistic approach in assessing the quality of care focusing on structure, process and outcome. Structure outlines the attributes of the settings: physical structure, equipments, drugs, supplies and staff characteristics in which care is applied. Process describes the actual giving and receiving of the care. Structure and process may influence outcome either directly or indirectly. These dimensions of the healthcare system are most relevant in evaluating the practices and quality of intrapartum care and satisfaction can be seen as an outcome.

Application of the model to the study

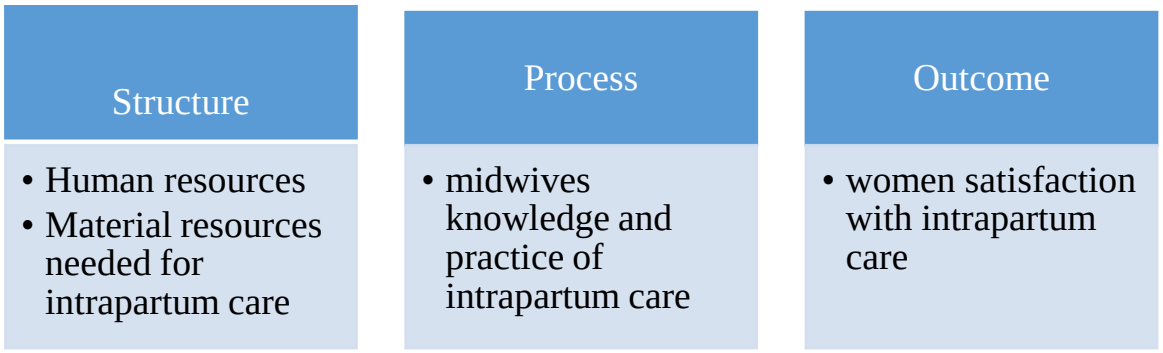


Figure 2.2: Application of the framework to the study

Structure here denotes attributes of the setting in which care is given. It includes material resources such as facilities and equipments and human resources such as number of staff and their qualification. Process are the series of inter- related activities undertaken to achieve

objectives. It consists of what is actually done in giving and receiving care to women during intrapartum period. What the midwife did to the women and how well it was done. Outcome measures the degree of the women satisfaction with care received during intrapartum period.

2.4 Summary of the chapter

Quality of care is a broad and multidimensional concept which is not duly studied. It is defined as the degree to which maternal health services for individuals and populations increase the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights. Assessing quality of care during labour, delivery and immediate postpartum is very important because it is in these periods that women and newborns face multiples risks that have direct impact on their survival. Satisfaction is an important indicator of care where women are asked the degree of contentment with the services they received during intrapartum period. It is of utmost importance to acknowledge and incorporate evidence based practices in the care of labouring and delivering women in the hospitals. This study aims to revisit the gaps in quality of facility based care in order to bring about further progress in reducing maternal morbidity and mortality attributable to intrapartum related complications.

CHAPTER THREE

MATERIALS AND METHODS

3.0 Introduction

This chapter presents the methodological issues used in the study. It covers the following areas; study design, study area/ setting, target population, sample size, inclusion and exclusion criteria, sampling technique, Tools/instruments for data collection, validity of data collecting instruments, method of data collection, method of data analysis and ethical consideration.

3.1 Study Design

Cross sectional descriptive research design was adopted for this study. It's an observational study that analyses data collected from a population at a specific point in time. This type of design describes what exists and help to uncover new facts and meanings. The purpose is to observe, describe and document aspects of a situation as it naturally occurs (Polit and Hungler, 1999). According to Polit and Beck (2010) cross-sectional design involve the

collection of data at one point in time or multiple times in a short time period. It describes the status of phenomena or relationships among phenomena at a fixed point.It involves the collection of data that will provide an account of individuals and situations. Instruments used to collect data in descriptive studies includes questionnaires, interviews (closed questions) and observation (checklists). This design will help to provide information about quality of midwives' intrapartum care and women satisfaction with the care received during intrapartum period.

3.2 Study Area /Setting

Maiduguri is the capital city of Borno state, located in the north eastern part of Nigeria. Maiduguri is located 11.85 latitude and 13.16 longitude. It is situated at an elevation of 325m above sea level. Borno state occupies the greater part of the chad basin, it shares borders with the republics of Niger, Chad and Cameroun, and within Nigeria shares boundaries with Adamawa, Gombe and Yobe states. There are twenty seven local government areas in the state. It is dominated by the Kanuri ethnic group. The researcher is residing in this state. There are three government secondary health care facilities in Maiduguri Metropolis. The study was conducted in the three general hospitals: State Specialist Hospital Maiduguri (SSH), Muhammad Shuwa memorial hospital (MSMH), formerly known as Nursing home and UmaruShehu ultramodern hospital (USUMH). These are state-owned hospitals provide affordable health care services and they are supervised by the hospitals management board (HMB) which is affiliated to state ministry of health. They serve as training and research center for state school of nursing and midwifery and that of health technology. SSH serves as the biggest tertiary maternity and referral center owned by Borno state government.

State Specialist Hospital was established in 1928 as the then general hospital of the old Borno province of the former northern Nigeria. It was the premier hospital of the former north eastern states. The scope of the hospital was expanded by the provision of the specialist

hospitals committee in the Edict establishing the Borno state hospitals services management board. The hospital is located along ShehuLaminu way, strategically in the commercial area of the town on a large expanse of land. The hospital has a bed capacity of 500 with a staff strength of 959.

Muhammad Shuwa memorial hospital was established in 1970 by the Sudanese missionary. It is located at old G.R.A Maiduguri behind National Health Insurance Scheme (NHIS) zonal office off ShehuLaminu way, and serves as a specialist hospital. It was previously called Nursing Home Hospital and was commissioned to Muhammad Shuwa memorial hospital after the renovation and furnishing on 2nd February, 2013. Formerly the hospital had a bed capacity of 70 now it has 117 beds with 420 staff of different cadres. The hospital has 12 departments and 5 wards.

UmaruShehuultra modern hospital was officially commissioned by the then president and commander in chief of the armed forces, Federal Republic of Nigeria late Umaru Musa Yar'adua on Thursday the 21st day of February 2008. The hospital is located along Bulumkutu Kano – Jos road Maiduguri. It has 300 bed capacity with staff strenghth of 384; 19 medical doctors, 157 nurses/midwives, 8 laboratory scientists, a pharmacist, a physiotherapist, 3 biomedicals, admin staff among others. The hospital has male and female medical and surgical wards, gynae ward, post natal ward, family planning, labour ward, paediatric ward, ENT, rescue ward among others like any general hospital. The hospital also has admin block, x-ray, theartre, kitchen and CT suit complex. Hospital ambulance, bore hole and generators are in place and in good working condition.

3.3 Target Population

The target population of this study has two folds: the midwives working in the labour wards of the three secondary health care facilities and mothers who had spontaneous onset of labour and delivered in the three secondary health care facilities.

3.4 Sample Size

There are two sample sizes: the first for the midwives and the second for the mothers

1. A total of 43 midwives were recruited in this study. This represent the number of midwives in the selected health care facilities.

Table 3.1: Sample size amongst the three studied healthcare facilities

Name of hospital	Number of midwives
State specialist hospital	16
Muhammad Shuwa memorial hospital	14
UmaruShehu ultramodern hospital	13
TOTAL	43

2. The sample size for the women was determined using Yamane's formula:

$n = N/ [1+N (e)^2]$ where:

n = sample size

N = population size (average number of deliveries per month for the three hospitals)

SSH = 300, MSMH = 200 and USUMH = 100

e = margin of error = 0.05

substituting, $n = 300 + 200 + 100/ [1+ 600(0.05)^2]$

$n = 600/2.71$

n = 240 mothers

A total of 240 women who had spontaneous vaginal delivery were recruited for this study.

Table 3.2: Proportionate sampling into each healthcare facility

Name of hospital	Proportion	Sample size
State specialist hospital	300/600 x 100 = 50% 50/100 x 240 = 120	120
UmaruShehu ultramodern hospital	100/600 x 100 = 17% 17/100 x 240 = 41	41
Muhammad Shuwa memorial hospital	200/600 x 100 = 33% 33/100 x 240 = 79	79
	TOTAL	240 mothers

3.5 Inclusion and Exclusion Criteria

Inclusion

All consenting women that are:

- Full term mothers

- Spontaneous onset of labour

- Primigravida and multigravida

- Had alive baby

Exclusion

All non-consenting women:

- All high risk cases

- All operative deliveries

- Any labour complications

3.6 Sampling Technique

1. No sampling technique was used as the entire midwives were recruited.
2. Convenient sampling technique was used to determine the sample of women.

3.7 Tools / Instruments for Data Collection

To achieve the objectives of this study, five tools were used, three for the researcher, one for the midwives and the other for the mothers. These tools were:

1. Facility checklist for availability of human resources (midwives)
2. Facility checklist for availability of material resources
3. Structured questionnaire for midwives' level of knowledge
4. Observational checklist for midwives' practices
5. Structured questionnaire for women satisfaction

1. Facility checklist for availability of human resources (midwives) was designed by the researcher based on extensive literature reviewed. It is composed of the total number, available per shift, available in 24hours and their qualification.It was based on a scale of adequate and inadequate based on the standard ratio according to the Nursing Staff Service (2003).

2. Facility checklist for availability of material resources was designed by the researcher based on extensive literature reviewed and indicators of quality of care. It is composed of four sections: Physical resources/infrastructure, equipments/instruments, drugs and consumables on a scale of available and functional/available and adequate (AF/AA), available not functional/available and adequate (ANF/ANA), and not available (NA). Scoring was based on percentages: <50% - not adequate, >50% - adequate

3. Structured questionnaire for midwives' level of knowledge on intrapartum care was adapted from Maternal and New born Quality of Care Survey (United States Agency International Development Maternal and Child Health Integrated Program). It consists of two sections: sections A and B. Section A comprises socio-demographic data of the midwives. Section B has 6 subsections including first stage of labour, second stage of labour, third stage of labour, fourth stage of labour and care of the new born and is comprised of correct and incorrect options. The scoring of knowledge was done by dividing the scores obtained by the total number of questions and converted to percentages and graded as;

< 50% = poor level of knowledge

50 – 60 = average level of knowledge

> 60% = high level of knowledge

4. Observational checklist for midwives' level of practices was adapted from a study Jeng Baba (2008) Practice and Quality of Intrapartum Care in the Main Referral Hospital of the Gambia. It consists of nine sections: demographic characteristics, physical environment, midwives, admission, management of first stage of labour, preparation for delivery, management of second stage of labour, management of third stage of labour and management of fourth stage of labour. The scoring was done in percentages:

< 50 = Low level of practice

50 – 60 = Moderate level of practice

> 60% = High level of practice

5. The tool for satisfaction with intrapartum care was a questionnaire which was adapted from Women's Views of Birth Labour Satisfaction Questionnaire. It is comprised of two sections: section A which has demographic characteristics while section B has four subsections; physical environment, midwives' interaction with client, communication and

care placed on a scale of very satisfied (4), satisfied (3), unsure (2), dissatisfied (1) and very dissatisfied (0) and graded as:

> 3 highly satisfied

> 2 satisfied

< 2 not satisfied

3.8 Validity of data collecting tool/instrument

Content and face validity was done by five jurors from the department of Nursing Sciences, Department of Community Medicine and Department of Obstetric and Gynaecology Ahmadu Bello University Teaching Hospital who assessed the instruments and the needed modifications were done.

3.9 Method of data collection

Two research assistants were assigned and trained by the researcher to collect data for this study. The research assistants were student midwives in their final year of training to ensure adequate level of knowledge in order to correctly collect the data. A one day training on the objectives of the study and method of data collection was given to them and data was collection was done in phases:

1. The researcher took the introductory letter to the state ministry of health and the research ethical units of the various hospitals
2. Researcher's visit to the hospitals to see the head of maternity unit for introduction of self and research assistants3
3. Familiarization with staff of labour wards and the ward environment. The midwives were informed of the objectives of the study, they were not informed of the days to be covered for the study. This was to minimize bias and assumed as a way of validation
4. Assessment of the available human and material resources in the facilities.

5. Assessment of the midwives' knowledge on intrapartum care. All midwives available during the period of study were assessed of their knowledge and observed once of their practices throughout labour, delivery and immediate post-partum period.
6. Assessment of women satisfaction with intrapartum care using questionnaire. Oral informed consent was obtained. Those that cannot write, the researcher and research assistants ask them the questions and filled their responses. All privacy and confidentiality was maintained

3.10 Method of data analysis

To achieve the purpose of this study, the data collected was analysed using statistical package for social sciences (SPSS) version 22. The demographic characteristics was analysed using descriptive statistics in form of frequency and percentages and results werepresented in tables and charts.

3.11 Ethical consideration

Introductory letter was collected from the department of Nursing Sciences, Ahmadu Bello University Zaria and submitted to the Director Nursing services State Ministry of Health where a letter was obtained and taken to the various ethical committee of the hospitals. Ethical approval was obtained to conduct the study. The letters were taken to the heads of department of the various hospitals of study. Permission was granted to conduct the study.Oral informed consent was obtained from both midwives and mothers. All needed information about the study's aim, objectives and duration was explained to the midwives and mothers. All privacy and confidentiality was maintained.

CHAPTER FOUR

RESULTS

4.1 Data Analysis and Results

The aim of this study was to assess the quality of midwives' intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri metropolis, Borno State Nigeria. A total of 43midwives and 240 mothers were recruited in the study. The response rate was 95%, 81% and 100% for midwives' knowledge, practice and women satisfaction respectively. This chapter will present the data analysis related to the socio demographic characteristics of the two samples and the research questions of the study. The chapter will cover seven (7) sections:

Section 1: Socio demographic characteristics of the midwives: Table 4.1

Section 2: Available human resources for intrapartum care: Table 4.2

Section 3: Available material resources for intrapartum care: Figure 4.1

Section 4: Level of midwives' knowledge on intrapartum care: Figure 4.2

Section 5: Level of midwives' practice on intrapartum care: Table 4.3

Section 6: Socio demographic characteristics of the women: Table 4.4

Section 7: Level of women satisfaction with intrapartum care: Table 4.5

Section 1: Socio demographic characteristics of the midwives

Table 4.1: Distribution of the midwives according to their socio demographic characteristics n=41

Variables	No	%
Age(years)		
18-25	6	14.6
26-35	19	46.3
36-45	7	17.1
46-55	9	22
Mean age = 35.2		
Qualification		
RN/RM	19	46.3
RM	16	39.0
RN/RM/B.N.Sc	6	14.6
Rank		
Chief Nursing Officer	14	34.4
Principal Nursing Officer	8	19.5
Nursing Officer I	15	36.5
Nursing Officer II	4	9.8
Duration of experience in delivery rooms		
1-5	18	43.9
6-10	14	34.1
11-15	4	9.8
16-20	5	12.2
Attended Workshop		
Yes	18	43.9
No	23	56.1

Table 4.1 describes the distribution of the midwives according to their socio demographic characteristics. Majority of the midwives were within the ages of 26 to 35 years with a mean age of 35.2. This shows that the women were within the active ages of service. The table shows the professional qualification of the midwives whereby 19 midwives (46.3%) had RN/RM. It indicates that the majorities of the midwives were qualified and had one form of professional qualification or the other. The table equally reflects the rank of the midwives and it shows that majority of the midwives were Nursing Officer I (36.5%).

43.9% of the midwives had worked for 1-5 years which reflects that majorityofthemidwiveshave working experience.Furthermore, 56.1% ofthe midwives have no t attended workshop.

Hence, a good number of themidwives have not attended workshop.

Section 2: What are the available human resources for intrapartum care in secondary health care facilities in Maiduguri Metropolis, Borno State.

Table 4.2: Available human resources (Midwives) for intrapartum care in the healthcare facilities

Human Resources (Midwives)	**SSH**	**MSMH**	**USUMH**
Number	16	14	13
Available per shift	2	2	2
Available in 24hours	6	6	6
Qualification			
RM	9	4	5
RN/RM	6	7	6
RN/RM/BNSc	1	3	2
Total number of clients	300	200	100
Midwife-client	19	14	8
Standard ratio	1:2	1:2	1:2
Adequacy	Inadequate	Inadequate	Inadequate

SSH: State Specialist Hospital

MSMH: Muhammad Shuwa Memorial Hospital

USUMH:UmaruShehu Ultra-modern Hospital

Table 4.2 revealed the available midwives for intrapartum care in the three studied hospitals.

It was clear that there is inadequate number of midwives in the healthcare facilities.

Section 3: What are the available material resources for intrapartum care in secondary health care facilities in Maiduguri Metropolis, Borno State.

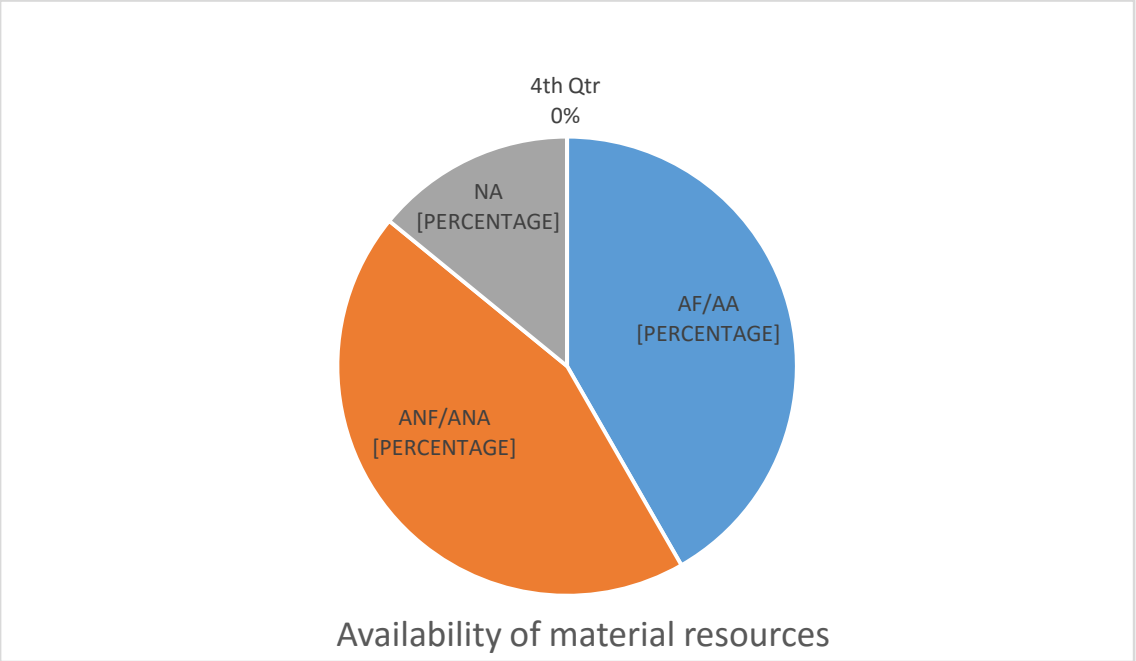


Fig 4.1: Availability of material resources for intrapartum care in the three healthcare facilities

Key:

AA/AF- available and adequate / available and functional

ANA/ANF- available not adequate / available and not functional

NA- not available

The figure shows the availability of material resources (physical resources/infrastructure, equipments/instruments, drugs and consumables) for intrapartum care. Majority (44%) of the resources that were available and not functional /not adequate includes episiotomy set, instrument trolley, resuscitation tray, forceps, aprons etc., while the resources that were adequate and functional consists of delivery room, operating theartre, laboratory, electric supply and running water. With regards drugs, Vitamin K was not available. Partograph and radiant warmer was only available in one facility.

Section 4: What is the level of midwives' knowledge on intrapartum care in secondary health care facilities in Maiduguri Metropolis, Borno State.

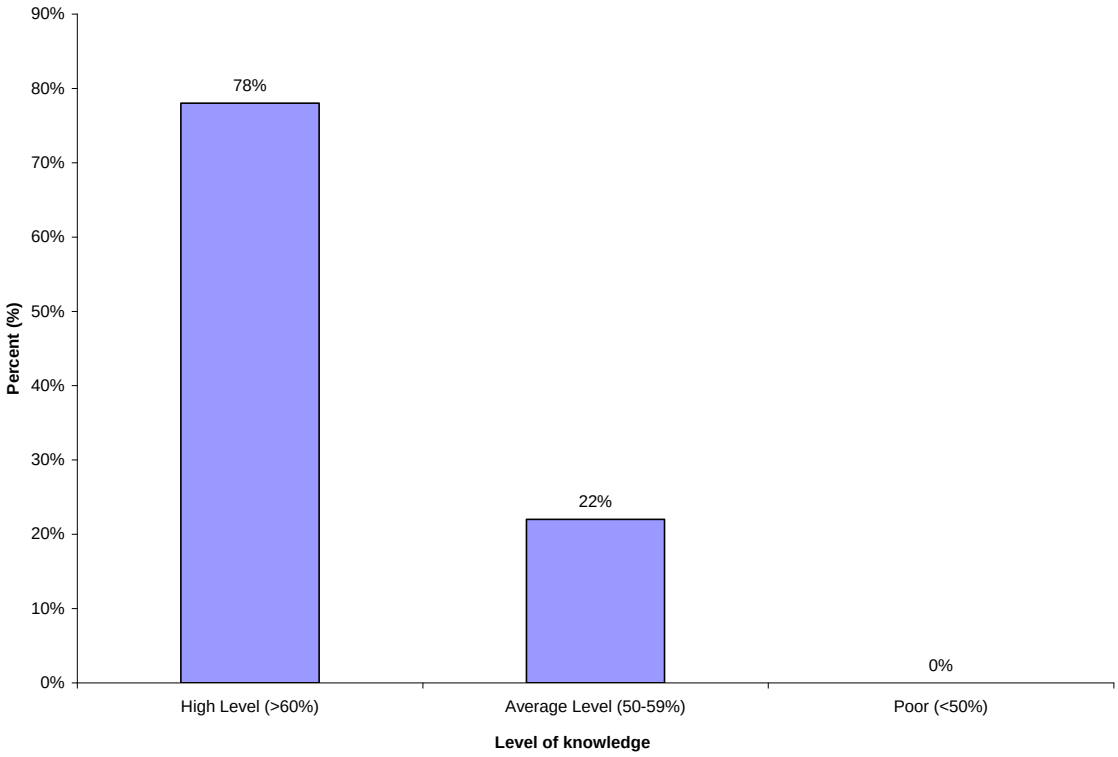


Fig 4.2: Distribution of the midwives according to their level of knowledge on intrapartum care within the three studied hospital n=41

Fig 4.2 showed the summary of the distribution of the midwives' level of knowledge on intrapartum care. It was clear that majority of the midwives (78%) had high level of knowledge on intrapartum care.

Section 5: What is the level of midwives' practice on intrapartum care in secondary health care facilities in Maiduguri Metropolis, Borno State.

Table 4.3: Summary of the distribution of the midwives according to their level of practice on intrapartum care within the healthcare facilities n=35

Variables	**High(satisfactorily done)**		**Moderate(Not satisfactorily done)**		**Low(Not done)**	
	No	%	No	%	No	%
Physical Environment	26	74.3	7	20.0	2	5.7
Midwife's Grooming	21	60.0	10	28.6	4	11.4
History Taking / Admission	19	54.3	9	25.7	7	20.0
Management of First Stage of Labour	18	51.4	10	28.6	7	20.0
Preparation of Delivery	20	57.1	11	31.4	4	11.4
Management of Second Stage of Labour	15	42.9	7	20.0	13	37.1
Management of Third Stage of Labour	20	57.1	7	20.0	8	22.9
Management of Fourth Stage of Labour	12	34.3	11	31.4	12	34.3
Total mean percentage of midwives' practice	53.9		25.7		20.4	

> 60% = High level of practice = 19 (53.9%)

50-60% = Moderate level of practice = 9 (25.7)

< 50% = Low level of practice = 7 (20.4)

Table 4.3 shows the distribution of midwives according to their level of practice. The cleanliness of the physical environment was high by 74.3% of the midwives. 60.0% of the midwife's grooming was high level with 28.6% moderatelevel and 11.4% low level. History taking recorded 54.3% as high with 25.7% and 20.0% moderate and low respectively. The table revealed that the management of fourth stage of labour has the least mean percentage of 34.3%.

Section 6: Socio-demographic characteristics of the women

Table 4.4: Distribution of women according to socio demographic characteristics n=240

Variable	No	Percentage
Age(years)		
15-24	67	28.0
25-34	124	51.6
35-44	49	20.4
Mean age= 28.7		
Parity		
Primigravida	72	30.0
1-5	98	40.8
6-10	52	21.7
More than 10	18	7.7
Level of education		
Primary	32	13.3
Secondary	88	36.7
Tertiary	39	16.3
None	81	33.8
Occupation		
None	106	44.2
Businesswoman	38	15.8
Artisan	16	6.7
Farming	21	8.8
Civil servant	28	11.7
Petty trader	31	12.9

Table 4.4 describes the distribution of the mothers according to their socio demographic characteristics. The mean age is 28.7. 28.0% of the mothers were between the ages of15-24 years, 51.6% were between the ages of 25-34years, 20.4% were between the ages of 35-44years,13.2% had primary education, 36.7% had secondary education, 16.3% hadhigher education,

33.8% had no education, 44.2% were not employed, 15.8% were businesswomen 6.7% were artisan, 8.8% were farmers, 11.7% were civil servants and 12.9% were petty traders.

Section 7: Level of women satisfaction with intrapartum care

Table 4.5: Distribution of women according to their level of satisfaction with Intrapartum care within the healthcare facilities n=240

Variables	Very satisfied 4		Satisfied 3		Unsure 2		Dissatisfied 1		Very dissatisfied 0		Mean
	No	%	No	%	No	%	No	%	No	%	
Physical environment	77	32	116	48	9	4	20	8	19	8	2.9
Midwives' skills	50	21	86	36	23	2.9	49	20	32	13	2.3
Communication with midwife	45	19	80	33	16	2.9	62	26	37	15	2.1
Midwifery care	50	21	115	48	14	1.3	39	16.2	22	9	2.5
Total Mean %	**23.1**		**41.3**		**6.4**		**17.7**		**11.5**		**2.4**

Table 4.5 shows the level of women satisfaction with intrapartum care. 32% of the respondents were very satisfied with the physical environment, 48% were satisfied, 4% unsure while 8% were dissatisfied and very dissatisfied respectively. With regards to midwife's skills, 21% were very satisfied, 36% were satisfied, 2.9% were unsure, 20% dissatisfied with 13% very dissatisfied. Equally table 4.5 revealed that 19% of the respondents were very satisfied with communication with the midwife, 33% satisfied, 2.9% unsure, 26% dissatisfied and 15% very dissatisfied. The table also showed that 21% of the respondents were very satisfied with the midwifery care rendered to them, 48% satisfied, 1.3% unsure, 16.2% dissatisfied and 9% of the women very dissatisfied.

CHAPTER FIVE

DISCUSSION

5.0 Introduction

The aim of this study was to assess the quality of midwives' intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri Metropolis, Borno state, Nigeria. A total of 43 midwives and 240 women participated in the study with response rate of 95%, 81% and 100% for knowledge, practice and satisfaction respectively. Facility checklists, an observational checklist and questionnaires were used for data collection.

5.1 Socio-demographic characteristics of the respondents (Midwives and Mothers)

The mean age of the midwives was 35.2years. Almost half (46.3%) of them had double qualification with 19 midwives as RN/RM. Similar result was found in a studyconducted by Oyetunde and Nkwonta (2015) on assessment of midwives' competencies in active management of third stage of labour in Anambra State, Nigeria where theyrevealed majority (65%) of the midwives had RN/RM qualification. Majority of the midwives (36.5%) were Nursing Officers with43.5% of the midwives having worked for1-5 yearswhich reflects that majority of the midwives have working experience. The result is also similar with a study by Esienumoh*et al*.(2015) where their findings revealed majority of the midwives(34.4%) were aged between 26 and 35 yearsand 56.8% in secondary health facilities ofwhich 51.2% had 1-10years of experience. Furthermore, 56.1% of themidwiveshave not attended workshop. Hence, a good number of themidwives have not attended workshop which may be result of lack of time and highregistration fee. This finding is in contrast to a study conducted by Rasheid and Ali(2010) on assessment of Nurse-midwives' knowledge and practice toward second stageof labour, where they reported that there was high percentage (69.4%) of them having participated in workshops with only one third of them not attended. It was found that in-service training is essential to ascertain that midwives' skills and their understanding of

quality of care be updated to maintain high quality in their nursing and midwifery practices and giving them the opportunity for high quality of performance.

The socio demographic characteristics of the women revealed the mean age was 28.7years, with the higher percentage (51.6%) of the women between the ages of 25-34years and lower percentage (20.4%) between the groups of 35-44years. The study equally revealed the parity of the women where majority (40.8%) had deliveries 1-5, lower percentage (7.5%) having more than ten deliveries. The study also revealed that 36.7% had secondary level of education and 33.8% having none meaning they had no form of educational level. With regards to their occupation majority of the women (44.2%) were not employed which reflects that they were full time housewives. Similar result was found by Daniel *etal*. (2015) where their findings revealed the mean age of the women was 28years and quite a good number of the women were multigravida (62.5%), primigarvida (30.8%) and 7.7% were grand multigravida in parity.

5.2 Discussion

The results revealed that the human resources were available but not adequate for intrapartum care in the three secondary healthcare facilities in Maiduguri Metropolis, Borno state. This is a major obstacle to providing quality care during labour. Effective maternity services require that human resources are managed and supported effectively in their roles. Delay in payment of salaries, excessive patient loads will promote an adverse environment, conversely efficient and responsive management of the hospitals will tend to enhance the quality of the environment and motivate staff (Hulton, Matthews and Stones, 2000). Fisseha, Berhane, Worku and Terefe (2017) in their study revealed that only 2 out of 32 health facilities fulfilled the three quality indicators. The input quality was the better of the other quality components which was good in 21 out of 32.Also kozuki, Oseni, Mtimuni, Sethi, Rashidi, Kachale, Rawlins and Gupta, 2017 revealed Malawian health facilities generally had proper

equipment and supplies to provide appropriate intrapartum and immediate postpartum care but there was a scarcity of health workers relative to the catchment population of a facility and the burden of fetal and neonatal mortality and morbidity attributable to intrapartum-related complications is still high in Malawi.

From the result of the study the material resources were inadequate for intrapartum care in the healthcare facilities.All the physical resources were available and functional, with regards to the infrastructures; electric power supply, autoclave and running water were available and adequate while refrigerator and transport service were available but not adequate. In terms of the equipments; curtains, episiotomy set and autoclaved delivery set for each delivery were not adequate. Radiant warmer was only available in one facility, this shows that the facilities were under-equipped to address thermoregulation and hypothermia prevention. Partograph was only available and functional in one facility which implies not available in the two facilities. Midwives need training and workshops on partograph, being an effective and efficient instrument used to predict prolong labour and complications and if used by them will make their work much easier. Also for the available drugs and consumables, majority of the drugs were available and adequate but vitamin K was not available in all the facilities. Tuncalp*et al*.(2015) reported that in order to achieve quality care adequate equipments, drugs and supplies are absolutely necessary in labour wards, the inadequacy can affect the skills of the midwives negatively. Quality of care during childbirth in health facilities reflects the available physical infrastructure, supplies, management and human resources with the knowledge, skills and capacity to deal with pregnancy and childbirth. The finding of this study is in consistent with a study by Ossai, E.N. and Uzochukwu, B.S. (2015) where they revealed that no health center had adequate equipment and only 16.7% of health centers had adequate health manpower.Fissehaetal.(2017)on quality of delivery service in 32 health facilities in Northern Ethiopia reported that health facilities can only provide quality services

if their physical infrastructure is matched with adequate and functional materials and supplies, if they have sufficient number of trained human resources that are performing up to standards, and if their target population is satisfied with the services.The findings of the study is also in contrast with this report where it was mentioned that Malawian health facilities generally had proper equipment and supplies to provide appropriate intrapartum and immediate postpartum care (Kozuki*etal*., 2017). Jeng (2008) also in a study on the practices and quality of delivery care during childbirth revealed that many health institutions in developing countries face chronic shortages of drugs, equipments and basic supplies such as blood transfusion. Adequate equipment, drugs and supplies are absolutely necessary in the maternity ward to enable the health personnel to enhance skilled attendance during labour and delivery. Making sure that adequate drugs, equipment and other supplies are available in the maternity wards is critical in the implementation of skilled attendance in the labour ward and also maintaining good quality of care.

With regards midwives' level of knowledge on intrapartum care, majority (78%) of the midwives had high level of knowledge. This high level of knowledge demonstrated by the midwives may be as a result of the good training they had in midwifery school and this is needed to ensure high quality of care essential to women safety. Similar result was found by Rasheid and Ali (2010) who conducted a study on assessment of Nurse–Midwives' Knowledge and Practices towardSecond Stage of Labour revealed that there was a high mean of scores on Nurse-Midwives' knowledge regarding second stage of labour. It is also in conjunction with a study by Oyetunde and Nkwonta (2015) on assessment and utilization of active management of third stage of labour, stated that majority of the respondents (66.7%) have high level of knowledge and 28.2% have moderate knowledge on active management of the third stage of labour.

Findings revealed that 53.9% of the midwives' demonstrated high level of practice, 25.7% moderate practice and 20.4% low level of practice. The high level ofpractice demonstrated might be as a result of the non- participant observation because the respondents were conscious of the presence of the researcher.The high score of poor practice may be related to the inadequate material and human resources in the facilities and the lack of periodic workshops might also have contributed. The use of partograph was minimum, this is against the findings by Handady (2015) where their findings revealed that partograph was used for every delivery. The use of partograph should be emphasized to the midwives as its use prevent prolonged labour and complications.The midwives practices tend to be poor due to the shortage of the staff in delivery room and inadequacies in resources. Findings of the study revealed that there was low mean percentage in items regarding midwives' practices in second stage of labour such as informing woman of the stage of labour and asking the woman about the position she prefers for delivery. This may be due to shortage of staff in labour ward and the attitudes of the midwives. The result of this study is in consistent with a study by Esienumoh*etal*. (2015) where they found that majority (56.0%) of the midwives exhibited poor practice while 44.0% demonstrated good practice.Oyetunde and Nkwonta (2015) in their study on assessment of midwives' competence in active management of third stage of labour found that on observation it was only 41.7% who highly practice active management of third stage of labour while 58.3% lowly practice it and reported that no assistant while on duty, shortage or no supply of oxytocin, lack of cooperation of patients, procedure was time consuming are some of the factors militating against active management of third stage of labour. Their findings is in contrast with this study where 57.1% of the midwives observed showed that the third stage was satisfactorily done.In view of the above findings of this study, it implies that the midwives' practices are not congruent with their knowledge. This gap can be bridged by orienting the midwives on the importance of quality practice, provision of

adequate human and material resources and instituting standards to measure their performance while providing care. With good knowledge and practice, the lives of women would be in safer hands subsequently leading to reduction in maternal mortality.

From the result of the study, it was noted that there was moderate level of satisfaction with intrapartum care among the women with a mean of 2.4.This high level might be as a result of the immediate postpartum fatigue. In a study conducted on quality of intrapartum care: client's perspective in Uganda by Kigenyi, Terefa, Nabiwemba and Orach (2013) revealed that the patient satisfaction with services was suboptimal (mean score: 2.7) on a scale of 1to 4. The findings of this revealed that 64.4% of the women were satisfied or very satisfied, 6.4% were unsure while 17.7% and 11.5% being dissatisfied or very dissatisfied respectively. This is in contrast with a study conducted in Sudan by Handady, Sakin and Alawad (2015) on assessment of intrapartum care provided to women in labour at Omdurman maternity hospital and their level of satisfaction, they found out that only 47.5% of the women were satisfied or very satisfied, 37% were either dissatisfied or very dissatisfied, and 15.5% were not particularly pleased or frustrated by intrapartum care services. This is also in contradiction with another study by Mohammed, Shaban, Homer and Creedy (2014) who conducted on the prevalence and factors associated with satisfaction during labour and birth in Jordan, who found out only 17.8% of the women were satisfied with intrapartum care.The communication with midwife has the lowest mean of 2.1 which was as a result of the midwives' lack of communication skills and lack of women involvement in decision making. Handady*etal*.(2015) found communication to be defective as about one third of the women felt they were not welcomed and concluded that despite having good assessment, communication is low. Also according to a study by Tesfaye*et al*. (2016), findings showed that the overall satisfaction level was good (79.1%) and concluded that more emphasis should be put on giving women friendly care. It can be reported that the main factors influencing

dissatisfaction were midwives' and women interaction, involvement in decision making and caring process.Tang, W.M. Soong, C. and Lim, W.C. (2013) in their study reported that the patients rated their satisfaction of midwifery care as being at moderate level of satisfaction. The majority of the patients were highly satisfied with the affective support showed by nurses which comprise of 'respect', 'smile' and 'caring'. However, the patients were least satisfied with the aspect on 'decisional control' given to them such as 'making own decision towards care' and 'family involvement with care' hence, concluded that determining the level of patient satisfaction and the contributing factors can assist nurses in improving midwifery care.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

The aim of this study was to assess the quality of midwives' intrapartum care and women satisfaction in secondary healthcare facilities in Maiduguri metropolis, Borno state Nigeria. Five objectives were stated which include: to assess the available human resources for intrapartum care, to assess the available material resources for intrapartum care, to assess the level of knowledge of midwives on intrapartum care, to assess the level of practice of midwives on intrapartum care and to assess the level of women satisfaction with intrapartum care. Review of related literature, similar researches and studies, theoretical framework and summary of literature review was included. One of the first systematic framework for the quality of healthcare services developed by Donabedian, who divided the production of quality services into structure, process and outcome was adapted for the study.

A cross-sectional descriptive design was adopted for the conduct of this study. The three secondary healthcare facilities in Maiduguri Metropolis were selected for data collection: State Specialist Hospital, Muhammad Shuwa memorial hospital and UmoruShehu Ultra-modern Hospital. A total of 43 midwives and 240 mothers were recruited in the study with response rate of 95%, 81% and 100% for knowledge, practice and satisfaction respectively. All the samples for midwives were used and a convenient sampling technique was used to select the women for the study. A facility checklist was used to collect information on the availability of human and material resources, the midwives were assessed of their knowledge using questionnaire and observed of their practice using observational checklist while for the women administered questionnaire were used to assess their level of satisfaction. The data was collected from August to Novemberand was analysed using descriptive statistics.

The result of the study were presented in tables and charts. Table 4.1 revealed the distribution of the midwives according to their socio-demographic characteristics with a mean age of 35.2 years. Table 4.2 showed the availability of human resources(midwives) for intrapartum care in the three healthcare facilities which buttressed that the human resources were available but inadequate for intrapartum care. The material resources were also inadequate for intrapartum care. According to their level of knowledge on intrapartum care, majority (78%) of the midwives havehigh level of knowledge. Table 4.3 buttressed the distribution of the midwives according to their level of practice, 53.9% of the midwives' practices was high. Table 4.4 revealed the distribution of the women according to socio demographic characteristics. Table 4.5 showed the distribution of women according to their level of satisfaction, 64.4% of the women were satisfied with the level of care during the intrapartum period with a mean of 2.4/4.

6.2 Conclusion

Based on the results of the study, the researcher can conclude that:

- The human resources were available but inadequate for intrapartum care
- The material resources were available but inadequate for intrapartum care
- The level of knowledge of midwives on intrapartum care was high
- The midwives' level of practice during the intrapartum period was high
- The women were moderately satisfied with the level of intrapartum care.

6.3 Recommendations

Based on the findings, it can be recommended that:

- Adequate human resources should be provided by the State government through the hospitals management board to meet the ever increasing demands of the population.
- The Hospitals Management Board and the government should ensure that drugs, equipments and other supplies are adequate in the maternity wards.
- Periodic in-service training for midwives to upgrade the techniques necessary to assess, evaluate and improve the quality of care rendered to women in labour.
- Women expectations on the quality of care rendered during labour should be assessed by the management with a view to rendering satisfactory services during the intrapartum period.
- Midwives should adhere to their code of ethics so as to ensure constant self-improvement.
- Hospital administrators should employ more midwives into the labour room so that one on one support is encouraged, hence improving the overall satisfaction of labour for any woman.
- Regular monitoring and supervision of midwives with/without notice to assess their practices will be beneficial for ensuring safety of lives and improving quality of care.

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APPENDICES

APPENDIX I: CHECKLIST FOR AVAILABILITY OF HUMAN RESOURCES (MIDWIVES)

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA

Human resources	**SSH**	**MSMH**	**USUMH**
Total number			
Available per shift			
Available in 24hours			
Qualification			
RM			
RN/RM			
RN/RM/BNSc			
Total number of clients			
Midwife:client			
Standard ratio			
Adequacy			

APPENDIX II:

CHECKLIST FOR AVAILABILITY OF MATERIAL RESOURCES

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA

KEY:
AF – available functional **AA – available adequate**
ANF – available not functional **ANA – available not adequate**
NA – not available

Quality Items	**AF/AA**	**ANF/ANA**	**NA**
Physical resources/Infrastructure			
Labour ward			
Delivery room			
Operating theatre			
Laboratory			
Toilet			
Electric power supply			
Refrigerator			
Autoclave			
Running water			
Transport service			
Equipments / instruments	**AA/AF**	**ANA/ANF**	**NA**
Bedside table and chair			
Curtains to screen beds			
Cloth/towel to dry or warp baby after birth			
Episiotomy set			
Delivery beds			
Sink with water and soap			
Delivery trolley			
Autoclaved delivery set for each delivery			
Delivery kit for HIV + ve women			
Operating table			
Surface for newborn resuscitation			
Instrument stand/trolley			
Cord scissors			
Bowl for cleaning solution			
Kidney dish			
Basin to receive placenta			
Towel for hand supporting the perineum			
Sanitary pad			
Sphygmomanometer and stethoscope			
Forceps			
Suction apparatus and mucous extraction			

Thermometers			
Resuscitation tray			
Receptacle for infection prevention			
Drip stand			
Intravenous cannulas			
Radiant warmer			
Wall clock			
Lamp-wall mounted or side			
Weighing scale			
Ultrasound machine			
Aneasthetic machine			
Oxygen cylinder			
Drug cupboard			
Instrument cupboard			
Partograph			
Discharge card			
Referral form			
Drugs	**AA**	**ANA**	**NA**
Oxytocin			
Metronidazole			
Diazepam			
Lidnocaine			
Acetaminophene			
Hydralazine			
Vitamin K			
Methyldopa			
Nifedipine			
Misoprostol			
Magnesium sulphate			
Consumables	**AA**	**ANA**	**NA**
Apron			
Intra venous fluid			
Cord clamps			
Urinary catheter			
Antiseptic solution			
Sterile gloves			
Mask			
Tourniquet			
Blood giving set			

APPENDIX III:
MIDWIVES' QUESTIONNAIRE ON KNOWLEDGE OF INTRAPARTUM CARE

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA

Dear Respondent,

I am a post graduate student of Ahmadu Bello University, Zaria, carrying out a research on **"Assessment of Quality of Midwives' Intrapartum Care and Women Satisfaction in Secondary Healthcare Facilities in Maiduguri Metropolis of Borno State"** in partial fulfillment for the award of MSc (Nursing Science). All information provided will be completely used for academic purpose and remain highly confidential.

Fatima Ali Ahmed

+2347036895121

Instruction: Please tick [√] the option that is most appropriate.

SECTION A: <u>Socio demographic characteristics of the respondents</u>

1. Age …….years
2. Qualification ……
3. Rank / position ……
4. Duration of experience in delivery room ……..
5. In-service training/workshop attended in midwifery

SN	Workshop/training	Organized/ sponsored by	Focus	Duration(days)	Date
1					
2					
3					
4					
5					
6					
7					

SECTION B:

Midwives' knowledge on intrapartum care

Instructions: Please tick against each question

First stage of labour	Correct	Incorrect
1.Labour is the process by which the foetus and the placenta leave the uterus after 20weeks of gestation		
2.The first stage of labour is comprised of three phases		
3.Onset of labour is characterized by true labour pain and bleeding		
4.Active management of third stage of labour and administration of anti-retroviral prophylaxis to infant are nursing interventions to prevent/reduce mother-to-child transmission of HIV during delivery of HIV +ve woman.		
Second stage of labour		
5.Squatting is the best position for delivery		
6.Increase duration and intensity of uterine contraction and perineum bulging are signs and symptoms of 2nd stage of labour		
7.Membranes should be ruptured artificially by the midwife upon admission for all women		
8.Episiotomy prevents laceration and tear and also increase probability of infection		
9.During conduct of delivery support for perineal area and delivery of anterior then posterior shoulder prevent lacerations		
10.Cord consists of (2) veins and (2) arteries		
11.Early clamping decrease haemoglobin in newborn		
Third stage of labour		
12. Administration of uterotonic after delivery of placenta, controlled cord traction and uterine massage are the key steps for performing active management of the third stage of labour:		
13.Schultze's method is a mechanism of delivering the placenta		
14.3rd stage of labour is comprised of four phases		
15.Retained placenta and excessive bleeding are complications likely to occur in 3rd stage of labour		

16.Active management of third stage of labour is carried out routinely for all women during delivery		
Fourth stage of labour		
17.The 4th stage is the period from the delivery of the placenta and membranes to the time when the woman is examined after one hour		
18.Uterine massage is done every 15minutes in the first hour after delivery		
19.Total average blood loss in a normal delivery is 500mls		
20.Blood pressure, pulse and respiration should be checked every 4hourly after delivery		
Care of the newborn		
21.Two dry warm towels, source of warmth and flat surface are the basic requirements that must be available to ensure the baby receives appropriate immediate care after birth		
22.Apgar scoring is done at one and ten minutes		
23.Poor / no breastfeeding, breathing difficulties and hyperthermia are the signs and symptoms of infection (sepsis) in a newborn		
24.When a baby is delivered and there is no complication, the next important care to give by the midwife is to bathe the newborn		
25.After delivery, it is essential mother initiates breastfeeding within one hour		
26.Midwives are trained to do newborn resuscitation		

APPENDIX IV:

OBSERVATIONAL CHECKLIST FOR MIDWIVES ON INTRAPARTUM PRACTICES

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA

Case Number **[ ]**Date of admission……..….Time of admission……..……Time of delivery…….……

SN	**SECTION A: DEMOGRAPHIC CHARACTERISTICS**	**Options / coding**		
1	Age of client observed (in years)	…….		
2	Gestational age of the woman (in completed weeks)	……		
3	Gravidity	……		
4	Parity	……..		
5	Highest educational level attained	1.None [ ] 2.Primary [ ] 3.Secondary [ ] 4.Tertiary [ ]		
6	Occupation	1.None [ ] 2.Artisan [ ] 3.Petty trader [ ] 4.Farming [ ] 5.Business woman [ ] 6.Civil servant [ ] 7. Others (specify)……		
SECTION B: PHYSICAL ENVIRONMENT		**Level**		
		3High(satisfactorily done)	**2Moderate (Not satisfactorily done)**	**1Low (Not done)**
1	Cleanliness of delivery place			
2	Sterilization and readiness of equipment for use			
3	Place for cleaning of hands of midwife with soap and water			
SECTION C: MIDWIFE'S GROOMING				
4	Greeting of woman and her companion (if present) by the midwife in a cordial manner			
5	Explanation of each procedure to the mother			
6	Midwife asks mother when the painful regular uterine contractions began			

7	Encouraging woman to walk around during the first stage of labour			
SECTION D: HISTORY TAKING / ADMISSION				
8	Asked if the women experienced vaginal bleeding, fever, severe headaches, blurred vision			
9	Asked the woman if she has urinated & encouraged her to do so during the admission/first stage of labour			
10	If membranes ruptured: asked when, what color and smell			
11	Determine the vital signs of the woman (blood pressure, pulse, respiration and temperature)			
12	Measured fundal height			
13	Measured fetal heart rate			
14	Identified degree of decent by abdominal palpation			
15	Assessed moulding			
16	Woman informed about the vaginal examination to be performed			
17	Midwife washed hands with water and soap before VE			
18	Swabbed the vulva before performing VE			
19	Woman informed about the result of the VE examination			
20	Uterine contractions assessed how frequently is occurring during first stage of labour			
21	Encouraged the woman to ask questions			
22	Midwife washed hands with running water & soap after examining mother during history taking / admission			
SECTION E: MANAGEMENT OF FIRST STAGE OF LABOUR				
23	Uses partograph to monitor the progress of labour			
	Fetal heart rate			
	Amniotic fluid			
	Moulding			
	Descent			
	Contractions			
	Blood pressure			
	Temperature			
	Pulse			
	Respiration			
	Urinalysis			
24	VE conducted on time			
25	Restricted unnecessary VE			
26	Maintained hydration by the midwife			
27	Oral fluid offered to the woman on request			
28	Oxytocin augmentation performed			
SECTION F: PREPARATION OF DELIVERY				
29	Has prepared gloves, forceps and cord clamp			
30	Has prepared oxytocin to use for active management of third stage of labour			
31	Has prepared self-inflating ventilation bag and newborn facemask			

SECTION G: **MANAGEMENT OF SECOND STAGE OF LABOUR**				
32	Woman informed of the stage of labour			
33	Encouraged woman in 2nd stage to bear down as she desire when fetal head is visible			
34	Midwife asked the woman about the position she prefers for delivery			
35	Fundal pressure applied			
36	Inform the woman the need for an episiotomy and what she feels			
37	Conduct of episiotomy			
38	Episiotomy / tear repaired under local aneasthesia			
SECTION H: **MANAGEMENT OF THIRD STAGE OF LABOUR**				
39	Baby shown to mother to identify sex			
40	Controlled cord traction applied			
41	Administers 10 IU of IM oxytocin (or 5 IU slow push if IV in place) within 1 minute of delivery of baby			
42	Immediately dries baby with towel			
43	Places baby on mother's abdomen or chest skin to skin			
44	Clamps cord when pulsations stop, or by 2–3 minutes after birth (not immediately after birth).			
45	Inspection of the placenta			
46	Determine the vital signs (blood pressure, pulse, respiration and temperature) of the woman			
47	Apgar score checked at one and 5minutes			
SECTION I: **MANAGEMENT OF FOURTH STAGE OF LABOUR**				
48	Checked uterine contraction after birth			
49	Midwife washed hands with running water and soap after conducting delivery			
50	Takes mother's vital signs 15 minutes after birth			
51	Palpates uterus 15 minutes after delivery of placenta			
52	Initiation of breastfeeding within one hour of delivery			
53	Administered vitamin k to newborn			
54	Assesses completeness of the placenta and membranes			
55	Assesses for perineal and vaginal lacerations			
56	Estimation of blood loss			

……. …….

Name of Observer sign / date

APPENDIX V:
QUESTIONNAIRE FOR WOMEN SATISFACTION WITH INTRAPARTUM CARE

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA

Dear Respondent,

I am a post graduate student of Ahmadu Bello University, Zaria, carrying out a research on **"Assessment of Quality of Midwives Intrapartum Care and Women Satisfaction in Secondary Healthcare Facilities in Maiduguri Metropolis of Borno State"** in partial fulfilment for the award of MSc (Nursing Science). All information provided will be completely used for academic purpose and remain highly confidential.

Fatima Ali Ahmed

+2347036895121

Instructions: Please tick [√] the option that mostly represent your opinion or write your opinion.

Section A: Socio-demographic data

1. Age of client …….years
2. Parity …….
3. Highest educational level attained

1. Primary [ ] 3. Tertiary [ ]
2. Secondary [ ] 4. None [ ]

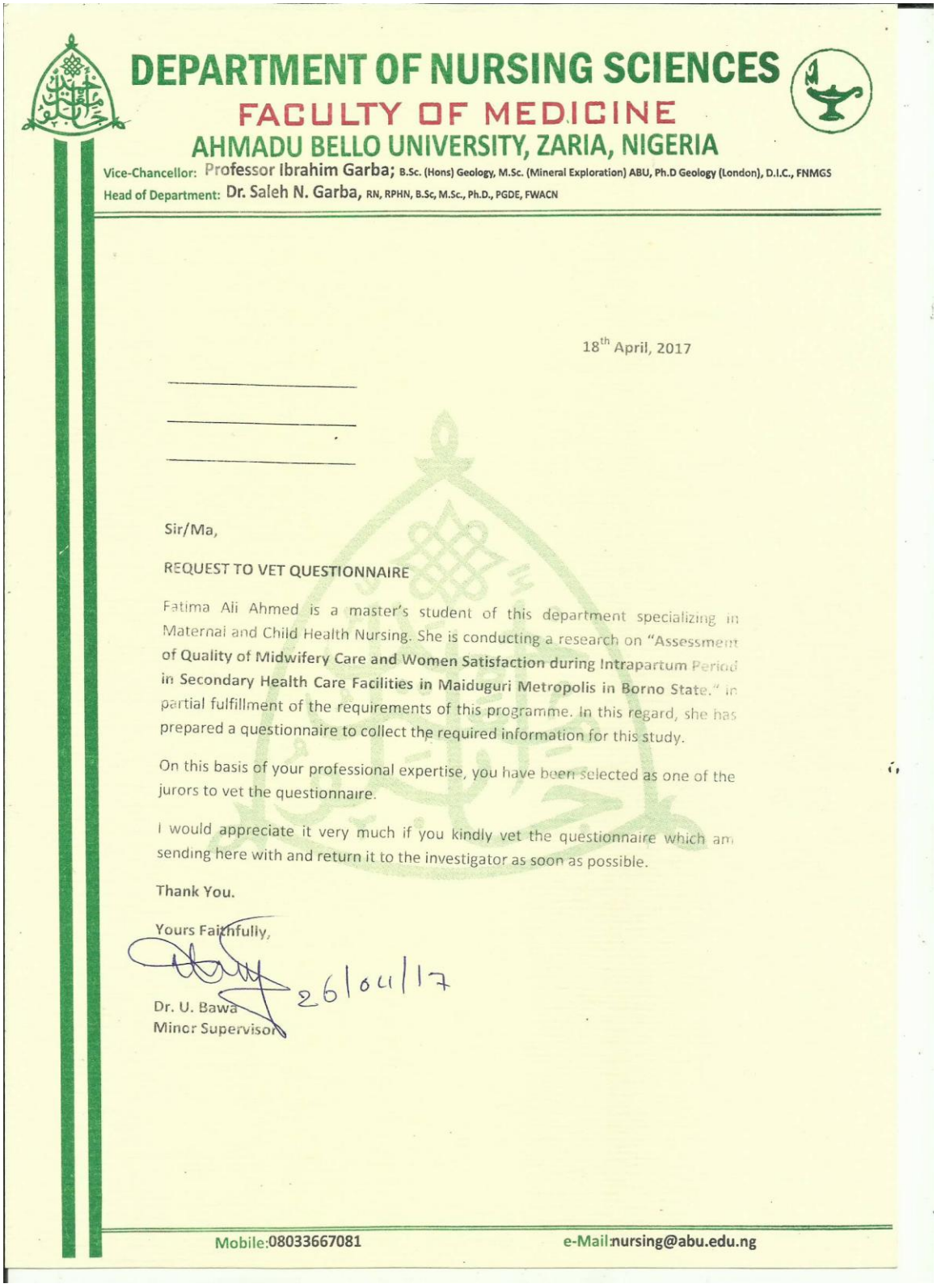
4. Occupation
    1. None [ ] 4. Businesswoman [ ]
    2. Artisan [ ] 5. Farming [ ]
    3. Civil servant [ ] 6. Petty trader [ ]

Section B: Satisfaction with intrapartum care

Instruction: Please tick [√] your level of satisfaction.

	Physical Environment **How satisfied are you with the following:**	very satisfied 4	satisfied 3	unsure 2	dissatisfied 1	very dissatisfied 0
1	Welcoming by the midwives and doctors					
2	Cleanliness of the facility					
3	Space provided for you					
4	Lightening of the labour room					
5	Level of noise in the environment					
6	Cleanliness of the equipments					
	Midwives' skills **What is the level of satisfaction with:**					
1	Information provided about the delivery process by the midwife					
2	How the physical examination was conducted					
3	How your vital signs were monitored					
4	The attitude and behavior of the midwives					
5	The participation of the midwife during labour					
6	The privacy afforded					
	Communication with midwife **How satisfied are you with:**					
1	Your level of participation in decision making during labour					
2	The response by the midwife about any questions / complaints you had					
3	Your involvement with decisions taken					
	Midwifery Care **What is your level of satisfaction with:**					
1	Comfort during labour					
2	The physical care you received from the midwife					
3	The overall care during intrapartum period					
4	The services rendered by this facility during delivery					

APPENDIX VI: REQUEST TO VET QUESTIONNAIRE



DEPARTMENT OF NURSING SCIENCES

FACULTY OF MEDICINE

AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

Vice-Chancellor: Professor Ibrahim Garba; B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS

Head of Department: Dr. Saleh N. Garba, RN, RPHN, B.Sc, M.Sc., Ph.D., PGDE, FWACN

18th April, 2017

_____

_____

_____

Sir/Ma,

REQUEST TO VET QUESTIONNAIRE

Fatima Ali Ahmed is a master's student of this department specializing in Maternal and Child Health Nursing. She is conducting a research on "Assessment of Quality of Midwifery Care and Women Satisfaction during Intrapartum Period in Secondary Health Care Facilities in Maiduguri Metropolis in Borno State." in partial fulfillment of the requirements of this programme. In this regard, she has prepared a questionnaire to collect the required information for this study.

On this basis of your professional expertise, you have been selected as one of the jurors to vet the questionnaire.

I would appreciate it very much if you kindly vet the questionnaire which am sending here with and return it to the investigator as soon as possible.

Thank You.

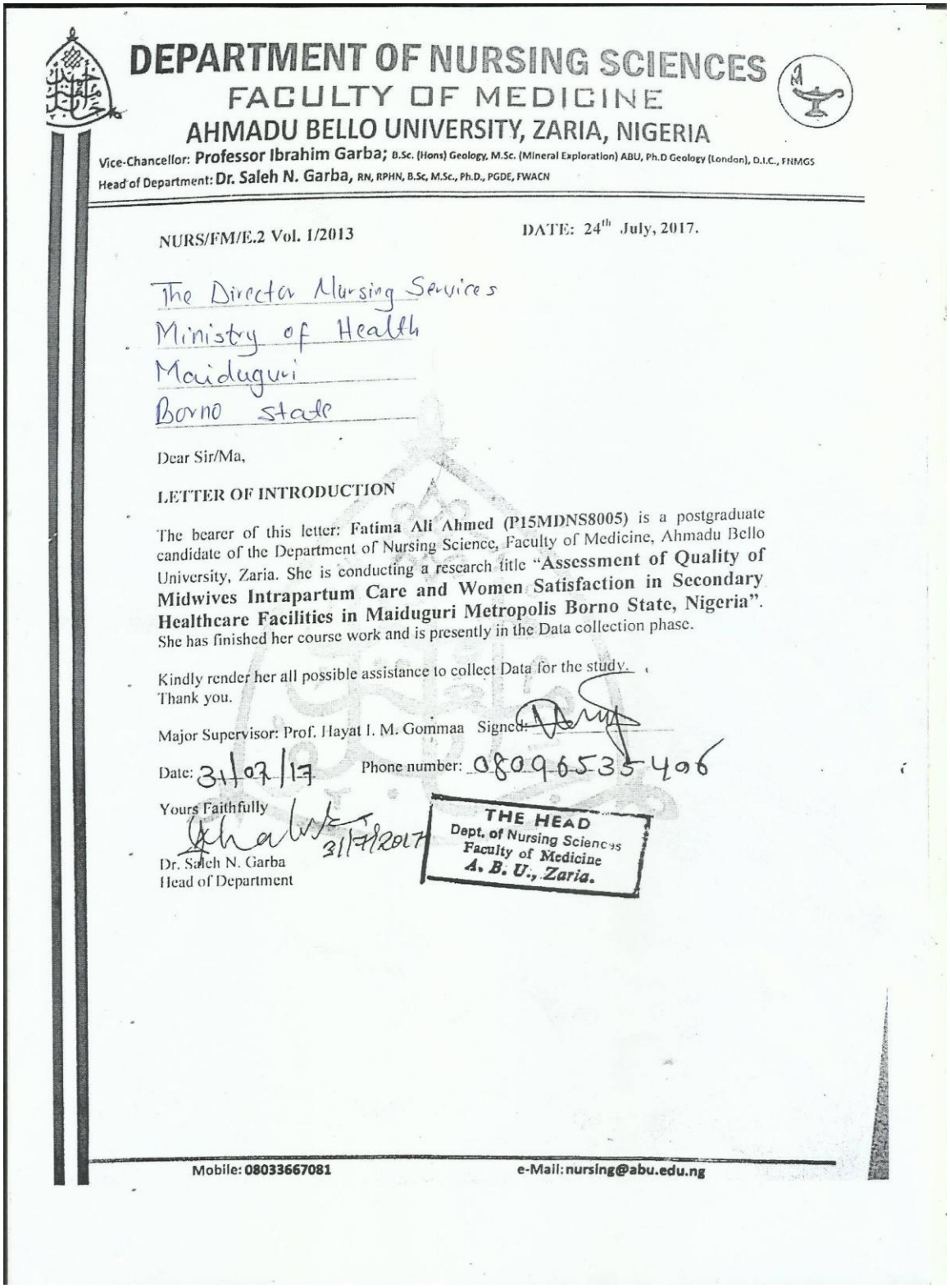
Yours Faithfully,

26/04/17

Dr. U. Bawa
Minor Supervisor

Mobile:08033667081 e-Mail:nursing@abu.edu.ng

APPENDIX VII: LETTER OF INTRODUCTION



DEPARTMENT OF NURSING SCIENCES
FACULTY OF MEDICINE
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

Vice-Chancellor: **Professor Ibrahim Garba;** B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS
Head of Department: **Dr. Saleh N. Garba,** RN, RPHN, B.Sc, M.Sc., Ph.D., PGDE, FWACN

NURS/FM/E.2 Vol. 1/2013 DATE: 24th July, 2017.

The Director Nursing Services
Ministry of Health
Maiduguri
Borno State

Dear Sir/Ma,

LETTER OF INTRODUCTION

The bearer of this letter: **Fatima Ali Ahmed (P15MDNS8005)** is a postgraduate candidate of the Department of Nursing Science, Faculty of Medicine, Ahmadu Bello University, Zaria. She is conducting a research title "**Assessment of Quality of Midwives Intrapartum Care and Women Satisfaction in Secondary Healthcare Facilities in Maiduguri Metropolis Borno State, Nigeria**". She has finished her course work and is presently in the Data collection phase.

Kindly render her all possible assistance to collect Data for the study.
Thank you.

Major Supervisor: Prof. Hayat I. M. Gommaa Signed:

Date: 31/07/17 Phone number: 08096535406

Yours Faithfully

31/7/2017

Dr. Saleh N. Garba
Head of Department

THE HEAD
Dept. of Nursing Sciences
Faculty of Medicine
A. B. U., Zaria.

Mobile: 08033667081 e-Mail: nursing@abu.edu.ng

Ref No._____
Ministry of Health
P.M.B. 1044,
Maiduguri
Borno State.

In reply please quote reference and date

Date:_____

3rd /08/17

MOH/GEN/428 T3

TO WHOM IT MAY CONCERN,

RE : LETTER OF INTRODUCTION :FATIMA ALI AHMED

This is an introduction Letter in respect of Fatima Ali Ahmed a post Graduate Candidate from the above mention institution want to carry out a Research in your organization you may kindly render her assistance.

Zainab Ibrahim Alkali
Director Nursing Services
Ministry of Health

DIRECTOR OF NURSING SERVICE
MIN. OF HEALTH, BORNO STATE
MAIDUGURI
SIGN..... DATE.....

APPENDIX VIII: ETHICAL CLEARANCE/APPROVAL

STATE SPECIALIST HOSPITAL MAIDUGURI

P.M.B. 1014, MAIDUGURI, BORNO STATE OF NIGERIA
E-mail Address: statespecialist.maiduguri@yahoo.com

OFFICE OF THE
Medical Director
Dr. (Mrs) Ahmed Laraba Bello
MBBS, FMCP
08054949010
E-mail drlarababello@yahoo.co.uk

Our Ref: *Your Ref:* *Date:*

Ref: No: SSH/GEN/641/Vol. 1 **14th August, 2017**

Fatima Ali Ahmed,
P15MDNS8005,
Department of Nursing Sciences,
Faculty of Medicine,
Ahmadu Bello University Zaria.

Dear Sir/Madam,

RE: ETHICAL CLEARANCE/APPROVAL

With reference to your letter Ref. No.: NURS/FM/E.2 Vol.1/2013 dated 24th July, 2017, I am directed to write and inform you that after careful review of your proposal, the Ethical Committee has approved your study on "***Assessment of quality of midwives intrapatum care and women satisfaction in secondary healthcare facilities in Maiduguri Metropolis, Borno State, Nigeria***".

In view of the above, you are to maintain utmost confidentiality of the information provided and strictly use of the purpose mentioned in the application. You are to submit a copy of the project to the Ethical Committee.

The Ethical Committee wishes you a happy study time.

HOSPITAL SECRETARY
DATE: ...

Yakubu M. A. Kirawa
Secretary, Ethical & Research Committee
For: Chairman

Cc:

HOD Obstetrics and Gynaecology, SSHM.
CNO i/c Labour Ward, Postnatal Ward, SSHM

APPENDIX IX: ETHICAL CLEARANCE/APPROVAL

BORNO STATE HOSPITALS MANAGEMENT BOARD

UMARU SHEHU ULTRA MOERN HOSPITAL, BULUMKUTU

P.M.B. 1118 MAIDUGURI, BORNO STATE



Dr. Ojewale A.A.
Medical Director

Ref. No USUMH/GEN/005/VOL.I
Date: 15th August, 2017

Fatima Ali Ahmed
P15MDNS8005.
Department OF Nursing services
Faculty of Medicine,
Ahmadu Bello University Zaria

Dear Sir/Madam,

RE: ETHICAL CLEARANCE /APROVAL

With reference to your letter No. NUR/FM/E.2 VOL. 1/2013 and dated 24th July, 2017, I am directed to write and inform you that after careful review of your proposal, the ethical committee has approved your study on ***"Assessment of quality of midwives intrapatum care and women satisfaction in secondary healthcare facilities in Maiduguri Metropolis, Borno state, Nigeria".***

The management of the above named hospital has agreed and accepted the above named student to carry out her clinical experience.

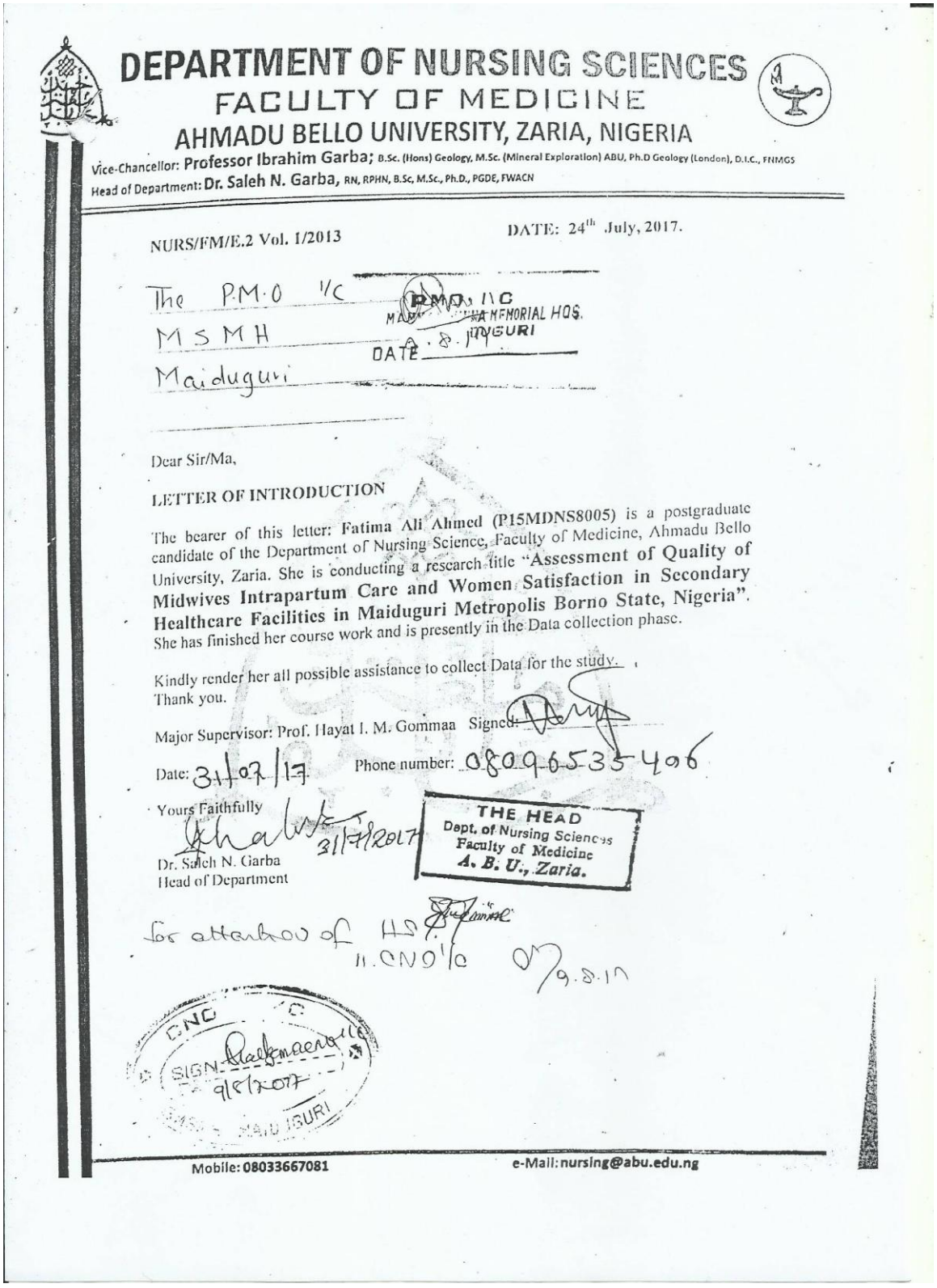
In view of the above, you are to maintain utmost confidentiality of the information provided and strictly use of the purpose mentioned in the application. You are to submit a copy of the project to the ethical committee on completion.

The ethical committee wishes you a happy study time.

Bala Fula Kudaba
Hospital Secretary
For: Medical Director

Cc:
HOD Obstetrics and GYNAE, USUMH.
CNO i/c labour ward, Post Nata ward , USUMH

APPENDIX X: ETHICAL CLEARANCE/APPROVAL



DEPARTMENT OF NURSING SCIENCES
FACULTY OF MEDICINE
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

Vice-Chancellor: Professor Ibrahim Garba; B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS
Head of Department: Dr. Saleh N. Garba, RN, RPHN, B.Sc, M.Sc., Ph.D., PGDE, FWACN

NURS/FM/E.2 Vol. 1/2013 DATE: 24th July, 2017.

The PMO I/C
MSMH
Maiduguri

PMO I/C
MAIDUGURI MEMORIAL HOS.
DATE 4.8.17 MAIDUGURI

Dear Sir/Ma,

LETTER OF INTRODUCTION

The bearer of this letter: **Fatima Ali Ahmed (P15MDNS8005)** is a postgraduate candidate of the Department of Nursing Science, Faculty of Medicine, Ahmadu Bello University, Zaria. She is conducting a research title "**Assessment of Quality of Midwives Intrapartum Care and Women Satisfaction in Secondary Healthcare Facilities in Maiduguri Metropolis Borno State, Nigeria**". She has finished her course work and is presently in the Data collection phase.

Kindly render her all possible assistance to collect Data for the study.
Thank you.

Major Supervisor: Prof. Hayat I. M. Gommaa Signed:

Date: 31/07/17 Phone number: 08096535406

Yours Faithfully

31/7/2017

Dr. Saleh N. Garba
Head of Department

THE HEAD
Dept. of Nursing Sciences
Faculty of Medicine
A. B. U., Zaria.

for attention of HOD
M.CNO I/C 9.8.17

CNO
SIGN
9/8/2017
MAIDUGURI

Mobile: 08033667081 e-Mail: nursing@abu.edu.ng

APPENDIX XI: CERTIFICATION TO CORRECTION OF DISSERTATION

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

Vice-Chancellor: Professor Ibrahim Garba; B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS
Head of Department: Dr. Saleh N. Garba, RN, RPHN, B.Sc, M.Sc., Ph.D., PGDE, FWACN

30th August, 2018

The Dean,
School Of Postgraduate Studies
Ahmadu Bello University,
Zaria.

Dear Sir,

CERTIFICATION TO CORRECTION OF DISSERTATION

We certify that all the corrections pointed out during the oral/ external examination of the dissertation titled **"Assessment of Quality of Midwives' Intrapartum Care and Women Satisfaction in Secondary Health Care Facilities in Maiduguri Metropolis Borno State, Nigeria."** written by Fatima Ali Ahmed P15MDNS8005 have been made to our satisfaction.

31/08/18

Dr. B. M. Tukur
Dept. of Nursing Science
A.B.U., Zaria.

31/08/18

Dr. A. B. Umar
Dept. of Nursing Science
A. B. U., Zaria

31/8/2018

Dr. S.N. Garba
Head of Department

THE HEAD
Department of Nursing Sciences
Fac. of Allied Health Sciences
College of Health Sciences.

Mobile: 08033667081 e-Mail: nursing@abu.edu.ng

DEPARTMENT OF NURSING SCIENCES
FACULTY OF ALLIED HEALTH SCIENCES
COLLEGE OF HEALTH SCIENCES
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

Vice-Chancellor: Professor Ibrahim Garba; B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS
Head of Department: Dr. Saleh N. Garba, RN, RPHN, B.Sc, M.Sc., Ph.D., PGDE, FWACN

Our Ref: NURS/FM/PG.2 **3rd September, 2018.**

The Dean,
School of Post Graduate Studies,
Ahmadu Bello University,
Zaria.

Dear Sir,

RE: APPLICATION FOR PROGRESS REPORT ON FATIMA ALI AHMED

With reference to the above subject matter dated **3rd September, 2018** in respect of **Fatima Ali Ahmed** with registration number **P15MDNS8005**. I write to inform you that the bearer is an MSc student in this Department. She completed her course work, proposal, Post field Seminar and External Defense. She is now waiting for her result.

Thank you for the usual cooperation.

Yours Faithfully,
4/9/2018
Dr. S. N. Garba
Head of Department

THE HEAD
Department of Nursing Sciences
Fac. of Allied Health Sciences
College of Health Sciences.
Ahmadu Bello University, Zaria.

Mobile: 08033667081 e-Mail: nursing@abu.edu.ng