ACCESS TO INFORMATION BY PRIMIGRAVIDA ON MATERNAL HEALTH SERVICES IN FATIMA VILLAGE IN ZARIA LOCAL GOVERNMENT AREA OF KADUNA STATE

BY

MAIMUNA SULEIMAN IBRAHIM
(MLS/EDUC/41110/2012-2013)
P16EDLS8267

A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER IN LIBRARY AND INFORMATION SCIENCE

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE,
FACULTY OF EDUCATION,
AHMADU BELLO UNIVERSITY,
ZARIA, NIGERIA

MARCH, 2019

DECLARATION

I declare that the work entitled "Access to Information by Primigravida on Maternal Health Services in Fatima Village in Zaria Local Government Area of Kaduna State" has been carried out by me in the department of Library and Information Science. Information derived from the literature has been duly acknowledged in the text and a list of references is provided. The dissertation or part of it has not been previously presented in the Ahmadu Bello University, Zaria or elsewhere for award of any certificate.

Maimuna Suleiman IBRAHIM _____ _____
(MLS/EDUC/41110/2012-2013) **Signature** **Date**
P16EDLS8267

CERTIFICATION

This dissertation entitled "Access to Information by Primigravida on Maternal Health Services in Fatima Village in Zaria Local Government Area of Kaduna State" by Maimuna Suleiman IBRAHIM meets the regulations governing the award of Master Degree in Library and Information Science, from the Department of Library and Information Science of the Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literacy presentation.

Dr. Abdullahi I. Musa **Chairman Supervisory Committee**	**Date**
Dr. Babayo Mohammed Tukur **Member Supervisory Committee**	**Date**
Dr. Mohammed Habib **Head of Department**	**Date**
Prof. Sadiq Z. Abubakar **Dean, School of Postgraduate Studies**	**Date**

DEDICATION

This work is dedicated to my children: Ibrahim (Daddy), Suleiman (Khalifa), Ahmad Tijjani and Muhammad Jazuli.

ACKNOWLEDGEMENTS

Alhamdulilahi! All thanks to Almighty Allah for the gift of life, health, wisdom, knowledge, understanding, favor and grace to carry out this research successfully. I am most grateful to my supervisors Dr. Abdullahi I. Musa, Dr. Babayo Mohammed Tukur, and Dr. Lawal Yazid for their efforts in directing and redirecting me at every point in need, in the process of this research. They have been very resourceful indeed!

I cannot thank Prof. Zakari Mohammed, Prof. Tijjani Abubakar and the team of examiners who found me qualified to be employed in the service of the Ahmadu Bello University, Zaria which created opportunity for me to be one of the members of staff of the university library complex in training.

My appreciation also goes to all my lecturers in the department who groomed me to this academic qualification. Worthy of mentioning among others in the regard are: the Head of Department – Dr. Mohammed Habib, Dr (Mrs.) F. Mohammed, Prof. Umar Ibrahim, Dr. E,S Gbaje, Dr. Baba Aduku, Dr. Abu Yusufu, Mal. Hayatu Musa, Dr. Babangida U. Dangani, Dr. Lawal Umar, Mal. Jibrin Abdulrahman, Mal. Idris Dauda, to mention a few, not forgetting the administrative members of staff of the department.

My sincere appreciation goes to my husband, children, parents, siblings, uncles, aunties and in- laws who stood by me during this research. The appreciation is specially extended to my mother - Hajia Salamatu S. Ibrahim and my son - Abdulrahman whom I lost within two weeks during the study. May *aljannanatu firdausi* be your final abode.

To my colleagues Mr Amos Gambo and Mrs. Mary Andrew I am so grateful for the understanding that you demonstrated to me during this research. I also appreciate my friends, class and school mates who are too many to mention. They contributed in various ways to my success.

Finally, I appreciate Prof. Gwari Bako and Prof. Ismaila Dakyes of Industrial Design Department, my clients Mr. Joshua Avav (Fine Arts Department) Mal. Isiyaka Abdullahi Magaji, Mr. Baba Jonah, Mr. Ebute Jonathan, Mal. Ibrahim Mamman and Mr. Zirra Bonaventure who made invaluable contributions to the work. I did not forget Mr. Anyam Pilah Godwin who edited the work. Masha Allah!

TABLE OF CONTENTS

Title Page		**Error! Bookmark not defined.**
Declaration		ii
Certification		iii
Dedication		iv
Acknowledgements		v
Table of Contents		vii
List of Appendices		x
Abstract		xi
CHAPTER ONE: INTRODUCTION		
1.1	Background to the Study	1
1.2	Statement of the Problem	4
1.3	Research Questions	5
1.4	Objectives of the Study	6
1.5	Significance of the Study	6
1.6	Scope of the Study	6
1.7	Operational Definition of Terms	7
CHAPTER TWO: REVIEW OF RELATED LITERATURE		
2.1	Introduction	8
2.2	Concept of Maternal Health	8
2.3	Significance of Information on Maternal Health	11
2.3.1	Maternal Health Services	13
2.4	Types of Maternal Information Services	29
2.5	Awareness of Information on Maternal Health	30
2.6	Sources on Maternal Health Information	33

2.7 Access to Information on Maternal Health 39

2.8 Barriers to Information on Maternal Health 42

2.9 Summary of the Review 45

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction 46

3.2 Research Method Adopted 46

3.2.1 Research Design 46

3.3 Population of the Study 47

3.4 Sample and Sampling Techniques 48

3.5 Instrument for Data Collection 49

3.6 Procedure for Data Collection 50

3.7 Procedure for Data Analysis 50

3.8 Rigor in quality research 52

3.8.1 Trustworthiness of the Study 52

3.8.2 Credibility 52

3.8.3 Member checking 52

3.8.4 Transferability 53

3.8.5 Dependability 53

3.8.6 Confirmability 53

3.8.7 Ethical Considerations 53

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction 54

4.2 Interview Analysis 54

4.3 Description of Interview Participants 55

4.4 Description of the Emergent Categories. 55

4.4.1 Experiences of Primigravida in Fatima Village on Access to Information on Maternal Health Services 55

4.4.2 Sources of Information on Maternal Health Services Available to Primigravida in Fatima 59

4.4.3 Access and Use of Information on Maternal Health Services by Primigravida in Fatima 61

4.4.4 Barriers to Access to Maternal Health Services Against Primigravida in Fatima 67

4.5 Implication of Findings 70

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction 74

5.2 Summary of the Study 74

5.3 Summary of the Major Findings 75

5.4 Contributions to Knowledge 75

5.5 Conclusion 76

5.6 Recommendations 77

References 78

Appendices 86

LIST OF APPENDICES

Appendix		Page
A:	Interview guide	86
B:	Analysis Data Table	87
C:	Themes, Categories and Subcategories by Frequency and Percentage frequency.	105
D:	Map Showing the Distance to the General Hospital in Fatima	108

ABSTRACT

This study investigated access to information by primigravida on maternal health services in Fatima Village in Zaria Local Government Area of Kaduna State. The problem identified by the researcher is the under utilization of maternal healthcare services when there is a high rate of maternal mortality in Nigeria especially in the rural areas of northern Nigeria, hence the interest in Fatima village. The researcher focused on primigravida (first time pregnant women or women that delivered their first babies are less than forty two days). The aim of the study is to determine access to information on maternal healthcare services by these women. The objectives of this study are to *identify the type of maternal healthcare services primigravida in Fatima village know about, to ascertain the sources of information on maternal health accessed by primigravida in Fatima village, to find out how primigravida in Fatima village accessed information on maternal health service, to find out the experiences of primigravida in Fatima villageand to identify barriers to access to maternal health services to primigravida in Fatima village in Zaria Local Government Area of Kaduna State. The research answered four questions:1. What are the experiences of primigravida in Fatima village on access to information on maternal health? 2. What maternal health services do primigravida in Fatima village know about? 3. What are the sources of information on maternal health services available to primigravida in Fatima village? 4. What are the barriers to primigravida in Fatima village to access to maternal health services? The methodology used for the research is hermeneutics (phenomenology) which investigated direct conscious experiences of phenomena as free as possible without theories, preconceptions and presuppositions. The population of the study is all reproductive women in Fatima village. Snowball sampling technique was used to find and recruit ten (10) primigravidas willing to participate in the study in their natural settings. The instruments for data collection were in-depth interview. An iterative analysis method was employed for coding the narratives which was manually done. This produced sixteen (16) categories, thirty-eight (38) sub-categories and ninety-three (93) open codes from the analysis. The study found out that primigravidas had challenges like irregular menstruation, spotting, cravings, altered sense of smell, morning sickness and frequent urination. Primigravida accessed information on maternal health services through informal sources which are their social networks and believed maternal health service are services accessed when there is complication in delivery. They rely on traditional birth attendants (TBAs) to deliver their babies and believed that maternal health services are for the elite. Sources of information on maternal health service they prefer are their social network and it is the only source they have access to. A major barrier to access to information on maternal health service that this study revealed is that primigravida do not know the benefits of maternal health services. The study recommended the use of information and communication technology (ICT) tools and posters by the ministry of health to disseminate information on the benefits of maternal health services to primigravidas in the rural areas.*

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

One of the characteristics of human beings is reproduction. In the process of reproduction, young ones are either reproduced successfully or not. Women who do not successfully give birth to babies, in many instances, end up having diseases (morbidity) due to massive bleeding which results to anemia (lack of quality or quantity of blood) while some end up in death (mortality). Morbidity, according to Merriam Webster Dictionary is a complication, a diseased state or symptom. Maternal mortality is defined by the World Health Organization (2012) as the death of women while pregnant or within forty-two (42) days of termination of pregnancy irrespective of the duration and site of the pregnancy from any cause related to, or aggravated by the pregnancy or its management but not from accidental or incidental causes. The maternal mortality rate (MMR) is the annual number of female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy (World Fact Book 2010).

Maternal health is related not only to the health of a woman, it also has a direct bearing on the health of her newborn specifically and the society at large. In developing countries, when all pregnant women experience life-threatening complications as a result of their pregnancy, mortality can be prevented or minimized with early detection of problems and appropriate interventions. With international focus on decreasing maternal morbidity and mortality, there has been a shift from the emphasis placed on some traditional maternal health interventions to the use of modern maternal health services in

recent years. The use of quality maternal health services (MHS) is central to the achievement of the millennium development goals (MDGs), especially MDGs 5, which seeks to: (a) reduce the maternal mortality ratio by three quarters between 1990 and 2015 and (b) achieve universal access to reproductive health services by 2015 (Babalola, 2014).

According to WHO (2014), the maternal mortality ratio in developing countries is unacceptably high (240 per 100 000 births versus 16 per 100 000) in developed countries. Nigeria ranks second in the world, after India, on the scale of maternal mortality with the rate of 560 deaths per 100,000 live births (World Bank, 2014) in 2010. An estimated 40,000 Nigerian women died during childbirth (Cooke and Tahir, 2013). Annually, an estimated 52, 900 Nigerian women die from pregnancy related complications out of a total of 529,000 global maternal deaths (United Nations Children's Fund Factsheet, UNICEF Factsheet, (2017). Cooke and Tahir (2013) affirm that the country accounts for an estimated 14 percent of the maternal deaths worldwide. A scenario aptly captured in the ratio of deaths in Nigeria where 1 out of 13 women die of pregnancy and childbirth related complications compared with 1 in 5000 births? in developed countries and only about 40% of the deliveries are attended to by skilled birth attendants (Leo and Okafor, 2015). Nigeria remains one of the ten most dangerous countries in the world for a woman to give birth (World Bank, 2012).

Significant disparity exists among regions in Nigeria. There are higher maternal mortality rates in the Northern Nigeria than in the Southern part of the country, perhaps because the southern region is wealthier and has abundant mineral and natural resources than the northern region. According to Abimbola et al (2012), the extremely poor North East has an estimated maternal mortality rate of 1, 549 and this is believed to be more than five times the global average. It is also believed that poverty, lack of investment in health systems, low educational levels and poor infrastructure have each contributed to

this disparity. Cultural factors in northern Nigeria gives women limited mobility and contact with the formal health care system in household and personal decision making unlike in most of Nigeria's southern states hence the interest in northern Nigeria.

Primigravida are the concern of the researcher because they are the most vulnerable and have not experienced childbearing at all as they are in the first stage of motherhood. Women of reproductive age are the direct consumers of these maternal health services and it is expected that pregnant women, especially the illiterate rural dwellers where maternal mortality is the highest when compared to the literate urban areas should be encouraged to enjoy maternal healthcare services.

But to achieve that, all interventions will have to be targeted by Health Care Service providers(Stakeholders and health care workers) to know how funds and resources are efficiently utilized in information dissemination to save a lot of lives, it is necessary that a full understanding of the socio-cultural practices, information access and use by the "primigravida" towards maternal health services are ensured. This will provide a policy that will guide the dissemination of information on available services that are culturally acceptable, religiously conscious and gender sensitive in order to achieve equitable service delivery system. In order to curb the menace of high maternal mortality, there is the need to understand the socio-cultural factors that hinders "primigravida" from utilizing maternal health services information.

Given the magnitude of the problem and the available intervention, much still needs to be done, hence the concern of the researcher to find out the experiences of primigravida (women who are pregnant for the first time or delivered babies that are less than forty-two days old) with regards to access to information on maternal health services because the researcher observed that most of the primigravidas do not utilize available maternal health services.

1.2 Statement of the Problem

Motherhood is often a positive and fulfilling experience, however, for so many women, it is associated with suffering, ill-health condition and even death. The major causes of maternal death include hemorrhage, infection, high blood pressure, unsafe abortion, and obstructed labor (Onasoga et al, 2014). Maternal death stems from absence, inadequacy or underutilization of the maternal healthcare systems. Maternal healthcare services are underutilized particularly among those who are in the greatest need, pregnant women in the rural areas in spite of the fact that there are available information on maternal health services in most of the hospitals in Nigeria.

In rural areas of many developing countries such as Kenya, Ghana, Senegal, Mali and Nigeria, over 80 percent of the deliveries occur at home, assisted by older household women and traditional birth attendants. This is exactly the situation in Fatima village. The researcher observed that women in Fatima village do not even attend antenatal clinics to obtain services. The unhygienic conditions under which rural deliveries usually occur often lead to infection in mothers and their newborns.

Even though facilities such as primary healthcare centers which provide basic healthcare and information to its immediate population exist, the researcher observed that the overwhelming majority of the people of Fatima are ignorant of the benefits of the services that are provided by the centers. The consequence of their ignorance is their non-use of the services leading to a high percentage of the death of child-bearing women between the ages of 13 and 49 years. According to Oyewole (2015), statistics has shown that mortality rate is higher among women in the rural areas than in the urban areas. The women in the rural areas are also at a higher risk of losing their lives during gestation period, childbirth or after birth of their children.

Furthermore, Adisse (2003) observed that women often lack access to relevant information. The lack of relevant health information and enlightenment result to poor health and high mortality rates. The researcher also observed that cultural attitude and practices impede women's use of available maternal services in their areas. According to Corraggio (2011) “Studies show that dissemination of health information to the public is often uncoordinated.” Even though there are new technologies to assist in disseminating health information, the new products of the communication revolution have not equally reached the rural and more disadvantaged populations such as the rural areas (Case, 2007).

UNICEF (2015) documented that Nigeria is on the verge of not meeting the 5th millennium development goals (MDGs 5) of reducing maternal deaths by three quarter in 2015. According to the Global Health Council, “The health of families and communities are tied to the health of women – the illness or death of a woman has serious and far-reaching consequences for the health of her children, family and community.” Yet every 100 seconds, a woman dies in pregnancy or during childbirth. Therefore, this research intends to investigate, first-hand, the challenges primigravidas encounter and how they access information to overcome the challenges, the sources of information they use and the barriers (if any) to their utilization of maternal health services with the view to finding lasting solutions to the problem thereby drastically reducing maternal mortality. The researcher targeted the primigravidas in Fatima village.

1.3 Research Questions

The study answered the following questions:

1. What maternal health services do primigravida in Fatima know about?
2. What are the available sources of information on maternal health services to primigravidas in Fatima?

3. How do primigravida access information on maternal health services?

4. What are the experiences of primigravida in Fatima?

5. What are the barriers to access to maternal health services primigravida in Fatima?

1.4 Objectives of the Study

The objectives of the study are to:

1. identify the type of maternal health services the primigravida in Fatima know about?
2. determine the sources of information on maternal health accessed by primigravida in Fatima village.
3. find out how primigravida in Fatima access information on maternal health services.
4. ascertain the experiences of primigravida in Fatima.
5. find out the barriers (if any) to information on maternal health services to primigravida in Fatima.

1.5 Significance of the Study

The study will be of immense benefit to government health ministries, departments and agencies, healthcare service providers, non-governmental organizations (NGOs) and other bodies that are concerned with healthcare delivery. It will be a reference material to students and researchers in addition to the contribution it will make to the growing literature in the field of phenomenology (hermeneutics) using information.

1.6 Scope of the Study

The Study in on the awareness and utilization of information on maternal health services among “primigravida” in Fatima in Zaria Local Government Area of Kaduna State. It only covered phenomenology and primigravida. It is not extended to pregnant women generally neither is it extended beyond hermeneutics using information. It

therefore, does not accord any priority attention to other aspects of health care service other than maternal health care service information delivery system.

1.7 Operational Definition of Terms

1. **Awareness of information**: Awareness refers to the information seeker being aware of various aspects of the searching and sense-making processes, including the task and its context, past and present actions, and various attributes of the information objects and the system
2. **CHWs**: community health workers
3 **Information access:** Information access includes the ability to obtain information and use the information obtained.
4. **Primigravida:** A woman who is pregnant for the first time or delivered her first child that is not more than forty-two days old.
5. **Traditional birth attendants (TBAs):** Women who help pregnant women to deliver their babies without the western professional skill or training.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter focused on the following sub-headings:

i. The concept of maternal health,
ii. The significance of information on maternal health,
iii. Maternal health information,
iv. Types of maternal health information service,
v. Awareness of information on maternal health service,
vi. Sources of information on maternal health services,
vii. Access to information on maternal health service,
viii. Barriers to access to information on maternal health services.

In addition to the review of these topical issues, authorial review is also carried out in the chapter. Works that are relevant or related to the topic of the study are also reviewed with the view to establishing existing gap in the literature on access to information on maternal health services among primigravida.

2.2 Concept of Maternal Health

The health of mothers and children reflects the well-being of the society. Unfortunately, insufficient health care, poor nutrition and the general effects of ill-health have adverse effect on the mortality of these groups of people in the community. High maternal mortality rates remain a constant setback worldwide. World Bank (2011), reports that problems during pregnancy and deliveries are the major reasons for deaths among women of reproductive age in poor resource countries. Maternal mortality is defined as a death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related

to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (WHO et al, 2012). Maternal mortality is high in the developing world and remains to be the main cause of death of women in the reproductive age group (González et al, 2006). Almost all the estimated half a million of maternal deaths that happened worldwide each year are believed to be in developing countries (González et al, 2006). Unlike men, women are vulnerable to risks related to maternal health (WHO, 2013).

The health of a nation is measured by the health of its people. WHO conceptualizes maternal health as the health of women during pregnancy, childbirth or during the postpartum period (WHO, 2010). Furthermore, maternal health combines the health status of women and how health services are adequate to provide the needs of women. Maternal health is concerned with health problems that can occur during pregnancy, childbirth, the immediate postpartum period and lactation (WHO, 2013). Pregnancy complication that poses a challenge for maternal health continues to hold a high risk of deaths. Maternal mortality, female genital cutting, child marriage, HIV /AIDS and cervical cancer are among the major health problems that account for most morbidity and mortality of women (Nour, 2008) in Umar (2016).

A recent estimate by the World Health Organization (WHO) indicates that more than half a million maternal deaths occur every year in pregnancy and childbirth complications. These deaths are, as Filippi et al (2006) in Ebeniro (2012) describes is only 'the tip of the iceberg'. This is indicates that for every woman who dies of pregnancy-related complications, there are more others who experience chronic morbidity due to this phenomenon annually. A total of 10-20 million women suffer in physical, sexual and mental illnesses and disabilities (Horton, 2010) in Hanson (2013).

Giving birth can pose many risks to a woman's health with their attendant physical, mental and social impacts. If these risks are not effectively managed in a timely manner they can create serious health problems for both mothers and children, and can even result to death (WHO, 2010). Maternal deaths occur predominantly during labour, delivery, or in the immediate postpartum period, often due to anaemia, infections, or hypertensive disorders. Roughly half of maternal deaths take place within one day of childbirth (Hogan, Goreman and Naghavi, 2010). Most of these deaths are preventable (Jowett, 2000) but prevention hinges on women being able to access the right maternal health information and services. Prevention of maternal death is also related to delivery in a health facility ensuring that women are close to emergency services and sufficient skilled care should the need arise (Campbell and Graham, 2006). Despite international efforts to improve maternal health, this remains one of the most threatening health challenges.

Pregnancy and birth-related complications are leading causes of death among women of reproductive age in developing countries. In 2008 alone, an estimated 358,000 women worldwide died from complications related to pregnancy or childbirth. The vast majority of maternal deaths occur in developing countries where haemorrhage, obstructed labour, eclampsia, abortion, sepsis and infection are the main causes of pregnancy-related complications (WHO et al, 2010).When adequate health facilities, proper treatment and emergency care are available, these complications should not lead to death. However, too often these essential maternal health care resources are not available or accessible to women in need. The fifth millennium development goal (MDGs 5) - to reduce maternal mortality by three-quarter between 1990 and 2015 is one of the prime objectives of countries struggling with poor quality of health care for women.

There have been instances of leadership on maternal health in the northern part of Nigeria. Kano was the first state in Nigeria to introduce free maternal care in 2003, but the care has not always been sustained. Currently, terror attacks by the extremist group Boko Haram have forced many health and development policy implementation personnel to shut down or scale back operations in the North, and public health experts are afraid that prolonged insecurity might destroy the gains and efforts made in the last decade.

2.3 Significance of Information on Maternal Health

The importance of information on maternal health cannot be over-emphasized. As a major component in health promotion, health information play an important role by encouraging individuals to adopt health behaviour, to use health care services and to make informed decision about their overall health. Health information can be defined as an information seeking activity which makes individuals to know, to be motivated and to maintain healthy practices, and to make informed decisions about their own health (Redmond et al, 2010) in Tsehay (2014).

Health information plays a big role on reproductive health, child health and promotes integrated management of childhood illness (IMCI), which includes management of five diseases of children under the age of five years: malaria, pneumonia, diarrhoea, measles and malnutrition (Silali, Maurice and Eunice (2013). Grason, Weisman and Silver (2002) noted that, individuals seek healthcare information from health professionals or community health workers, during chief's Barazas or health posters for reasons ranging from health awareness on primary health care, health promotion such as screening, curiosity to self-diagnosis and treatment. Clement et al (…) in Silali and Owino (2016) reported that "Health information and capacity building help health seeking behaviours of individuals, the majority of maternal mothers feel empowered and more in control of their reproductive health and also address both

unmated and psychological needs of women at specific time of need. In prevention of mother to child transmission attempt in this era of HIV & AIDS pandemic, Hibbard et al, in silali and Owino (2016) noted that "Health information empowers women to make informed choices and increase their perceptions in satisfaction of health provision towards primary prevention. Providing appropriate maternal information will empower mothers to act in an informed manner and to make right decisions that can transform their lives during pregnancy and after pregnancy and that of their new born.

The provision of maternal health information during pregnancy is a compulsory and an important element of antenatal care (ANC) for every pregnant woman (Lincetto et al, 2006) in Nwangakala (2016). The basic maternal health information includes health information on nutrition and diet, family planning, pregnancy danger signs, breastfeeding, and labour and childbirth (WHO & UNICEF, 2003; Lincetto et al, 2006) in Nwangakala (2016). Hence, non-provision of health information to pregnant women limits their ability to manage pregnancy danger signs and up-keeping their health during pregnancy, childbirth and postnatal (Nwangakala, 2016).

Pregnant women's access to health information and services is pivotal for a healthier population as it helps them take responsibility of their health and make better informed decisions about their health and that of their families (Henwood et al, 2003). The research show that well informed individuals are likely to take responsibility for their health (e.g. doing regular health check-ups, compliance to treatment and immunizations) and stay healthy for longer than their uninformed counterparts (Ransom et al, 2005; Gray et al, 2005; Wathen and Harris, 2007). Hence, there is the need for pregnant women especially first timers to have access to maternal health information so as to enable them to take informed decisions about their health and that of the family in general.

2.3.1 Maternal Health Services

Childbirth, even though a normal physiological process, has been associated with risks, which sometimes lead to loss of life. This fact is recognized and acknowledged in all cultures. Since the introduction of modern medicine, significant concern has been raised regarding the issue of improving maternal health services (MHS) to reduce morbidity, disability, and mortality due to pregnancy and the process of delivery (Umar, 2016). It is increasingly evident that improving maternal health service quality at the point of care can save the lives of many women and newborns (Tuncalp et al, 2015 cited in Beith et al., 2017).

Maternal health is the health care that is provided to women during pregnancy, childbirth and the postnatal period. It also includes family planning, preconception, prenatal and postnatal care aimed at reducing maternal morbidity and mortality (WHO, 2010). The health care provided to a mother during pregnancy, delivery, and after delivery is important for the well-being and survival of both the mother and the child (Mungai and Oleche, 2016). Maternal health (MH) is therefore, a very important issue as women strive to live up to their potential as individuals, mothers, family members and citizens of a wider community.

According to WHO (2015) “By the end of 2015, 303,000 women will die of complications during pregnancy or childbirth.” Most of these deaths can be avoided as the necessary medical interventions exist and are well known. The key obstacle is that pregnant women lacks access to information on healthcare services that would enable them to access quality care before, during and after childbirth. Motherhood is the most important position a woman can have in her life but can be a life threatening event as well (Mungai and Oleche, 2016). During pregnancy, any woman can develop serious, life-threatening complications that require medical care. However, it is well documented that

maternal morbidities and mortalities directly affect the well-being and survival of children and also contribute to poor family relationship (WHO, 2001). The risk of a woman in a developing country dying from a maternal-related cause during her lifetime is about 33 times higher compared to a woman living in a developed country (WHO, 2017). Some components of maternal healthcare Services, which have been found to have greatly reduced maternal morbidity and mortality, are described as antenatal care, postnatal care and delivery care.

Maternal health service refers to all curative and preventive health services provided during pregnancy, birth and the postpartum periods at the primary or referral level. Pregnant women in the developing countries are at higher risk of losing their lives as a result of pregnancy related complications compared to their counterparts in the industrialised countries partly due to adherence to cultural practices that can neither promote health nor prevent diseases. This is made worse by the weak healthcare system that disenfranchises the rural and urban slum population even though they account for the large proportion of high risk pregnancies that result in the loss of life. It is important to note that more than 80% of all these deaths could be averted by simple, cheap and effective high impact components of maternal health services (WHO, UNICEF, UNFPA, and World Bank, 2010).

Maternal health services (MHS) provide primary, secondary and tertiary levels of prevention to achieve better pregnancy outcomes. However, the use of prenatal and natal services among Nigerian women have been ranked among the lowest in the world and, consequently, the country is among the 10 countries with the highest maternal mortality ratio. Moreover, nationwide community-based studies on the use of maternal health services in Nigeria are limited (Umar, 2016). The function of the primary healthcare centre (PHC) is the provision of medical care and counseling services during pregnancy,

delivery and after birth that impacts on the survival of both mother and infant. Components of maternal health services include preconception care, antenatal care (ANC), intra-natal care, postnatal care and family planning. For the purpose of this study, the researcher concentrated on preconception, antenatal, intra-natal and postnatal care. Maternal health includes the health of women during pregnancy, childbirth and the postpartum periods. These services can be accessed from the primary, secondary or tertiary healthcare providers.

Primary health care denotes the first level of contact between individuals and families with the health system. According to Alma Atta Declaration of 1978 "Primary healthcare was to serve the community it served; it included care for mother and child which included family planning, immunization, prevention of locally endemic diseases, treatment of common diseases or injuries, provision of essential facilities, health education, provision of food and nutrition and adequate supply of safe drinking water.

Secondary health care refers to a second tier of health system, in which patients from primary healthcare are referred to specialists in higher hospitals for treatment.

Tertiary health care refers to a third level of health system, in which specialized consultative care is provided usually on referral from primary and secondary medical care to specialized intensive care units (SICUs), advanced diagnostic support services (ADSS) to specialized medical personnel (SMP) on the key features of tertiary health care.

Most of these maternal deaths can be prevented. Research shows that approximately 80% of maternal deaths could have been averted if women had access to essential maternity and basic health-care services (UNICEF, 2008). One factor in the utilization of maternity care services, especially in Africa, is the cultural background of the woman. The cultural perspective on the use of maternal health services suggests that medical need is determined not only by the presence of physical disease but also by cultural perception of

illness (Onasoga, Osaji, Alade and Egbuniwe, 2014). In most African rural communities, maternal health services co-exist with indigenous health care services; therefore, women must choose between the options (Onasoga, 2014). The use of modern health services in such a context is often influenced by individual perceptions of the efficacy of modern health services and the religious beliefs of individual women.

Gaston (2014) is of the opinion that in rural communities, where a large component of the people originates from traditional societies (hereafter referred to as indigenous people), government and health workers tend to provide information on services that have been implemented successfully in other contexts. They emphasize the need for the sharing of such information in the belief that they could be applied to solve or alleviate similar problems in rural areas as well, but very often the context from which the information products or services originated tend to differ from the cultural context of the target groups. Contexts, as referred to here, can include cultural environments, organizations, tasks, circumstances, systems, technology, and formal or informal settings. The common factor that runs through all of them is that they have boundaries that exercise some form of control regarding the flow and use of information or the extent of interaction that is allowed between the context and the outside world. Within the boundaries, sets of rules regarding standards, norms and values govern the handling of information (Audunson, 1999) and determine what type of information is acceptable or whether resistance towards information will take place or not.Providing appropriate maternal information will empower mothers to act in an informed manner and to make right decisions that can transform their lives during pregnancy and after pregnancy and that of their new born.

Akaligaung (2015) noted that improving maternal healthcare service delivery (MHCSD) for better health outcomes for women of reproductive age and children under

the age of five is central in achieving MDG 4 and 5. It is globally acknowledged that the use of quality improvement (QI) is one of the key drivers to meeting these goals. Quality improvement (QI) in the provision of maternal and child health services such as the availability and accessibility of midwives, training of QI teams, incentive packages for providers and clients, community support groups, and PFA(Pension Fund Administrator) partners were key contributory factors.

The policy project (n.d) noted that services for safe motherhood should include:

- Family planning, counseling, information and services
- Health care before, during and after childbirth
- Skilled assistance during delivery
- Care for obstetric complications, including emergencies
- Health education for women, adolescents, and communities, and
- Services to prevent and manage the complications of unsafe abortion.

Maternal health services are provided so as to increase the proportion of births delivered under medical attention to reduce the health risk of pregnancy and childbirth. Basically, maternal health services are provided during antenatal care (ANC), delivery care (DC) and postnatal care (PNC). ANC refers to pregnancy-related healthcare provided by a health worker either in a medical facility or at home. In theory, ANC should address both the psychosocial and medical needs of women within the context of the health-care delivery system and the surrounding culture (WHO, 1996). ANC has two major functions. First, antenatal health check-ups facilitate early detection of several complications such as high blood pressure and malnutrition. Second, antenatal visits play a crucial role in preparing a woman and her family for birth by establishing confidence between the woman and the healthcare provider and by individualizing promotional

health messages (WHO, 1996). The aim of ANC is to identify and commence early management of high risk pregnancy.

The goal of ANC is to have healthy pregnancy, clean and safe delivery, and to give birth to a full term healthy baby**.** The components of ANC includes registration and record keeping, periodic examination (including laboratory tests, risk detection and management), immunization, referral as needed, emotional and psychological support, health education, nutrition care, dental care, home visiting and social care (MOHP, 2007) in Azza (2015).

The purpose of antenatal care is to:

- support and encourage psychological adjustment to pregnancy, childbirth, breastfeeding and parenthood
- promote awareness of the social and psychological components of childbearing and their influences on the family
- monitor the progress of pregnancy to ensure the health and wellbeing of mother and fetus
- monitor all women for signs of obstetric difficulties through close personal attention and diagnostic tests where essential and indicated
- recognize deviations from the normal, and treat or refer as required
- recognize that women who develop warning signs may return to normal following treatment and might not necessarily be continued to be regarded or treated as at risk
- build a trusting relationship between the woman and her care givers
- provide the woman with information with which she can make informed decisions

- actively involve relevant members of the woman's family or friends in the experience of pregnancy, encouraging the supportive role that they might play and recognizing that they too might need support.

Thus, the recommended content of ANC service provision has three main components:

1) Assessments – includes history-taking, physical examination and laboratory tests to identify problems of risk factors.

2) Health promotion – includes advice on nutrition, birth planning, information about danger signs and contingency planning, subsequent contraception and breastfeeding.

3) Care provision – includes iron and foliate supplements, tetanus toxic immunization, psycho-social support and record keeping. Antenatal care provides an opportunity for a variety of preventive interventions for pregnant women, including immunization, nutrition, education and counselling about their plans for delivery and postpartum family planning. It also allows women who meet known risk criteria to be identified and monitored and subsequently referred to the appropriate centres for delivery care. Ideally, pre-existing and new medical problems such as malaria, anaemia and syphilis can also be detected and managed during antenatal care visits. It is also during such visits that providers can develop rapport with women, making them more likely to seek assistance during labour and delivery, should an emergency occur.

The mother's health condition during pregnancy significantly determines the health outcome of the pregnancy as well as mother and child's health after delivery. Comprehensive utilization of antenatal care during pregnancy reduces the likelihood of adverse health outcomes caused by pregnancy related complications ((Bloom et al, 1999). Antenatal care is the type of preventive care that provides regular check-ups for pregnant women with the aim of preventing, detecting and treating pre-existing conditions and

potential health problems throughout the course of pregnancy (McDonagh, 1996; Bloom et al, 1999; Lawn and Kerber, 2006). Antenatal care services includes identification and management of obstetric complications e.g. preeclampsia, Tetanus toxoid immunization, intermittent preventive treatment for malaria and identification and management of infections such as HIV, syphilis and other STIs (Lawn and Kerber, 2006). Hence, the more the woman adhere to antenatal care visits, the higher her chances of having better pregnancy outcomes as she is more likely to deliver under skilled attendants and receive the required obstetric care (Chakraborty et al, 2003; Vanneste et al, 2000; Yanagisawa et al, 2006; Nikiéma et al, 2009) in Nwangakala (2016).

2.3.2.1 Preconception Care

Maternal health refers to the health of the mother during pregnancy, childbirth and the postpartum periods (Dairo and Owoyokun, 2010). The Centre for Disease Control has defined preconception care as "Interventions that aim to identify and modify biomedical, behavioral and social risks to a woman's health or pregnancy outcome through prevention and management by emphasizing those factors that must be acted upon before conception or early in pregnancy to have maximal impact." Preconception care is the care a woman receives before she gets pregnant to help promote a healthy pregnancy. Taking steps to make sure a woman is healthy and avoiding exposure to harmful behaviors and toxins before she conceives can decrease the chances of problems during pregnancy and improve the health of her child.

According to WHO (2013) "Preconception care has a positive effect on a range of health outcomes. Among others, preconception care can reduce maternal and child mortality, prevent unintended pregnancies, complications during pregnancy and delivery, still births, preterm birth and low birth weight, birth defects, neonatal infections, underweight and stunting, vertical transmission of HIV/STI's. It also reduces the risk of

some forms of childhood cancers, type 2 diabetes and cardio-vascular diseases in later life.

Preconception care is the care that you receive before you get pregnant. It involves finding and taking care of problems that might affect you and your baby later, like diabetes or high blood pressure. It also involves steps you can take to reduce the risk of birth defects and other problems. For example, you should take folic acid supplements to prevent neural tube defects (Medline plus, 2015). Even where strong public health programs are in place across the life-course, they do not guarantee that women enter pregnancy in good health. Preconception care is defined as a set of interventions that aim to identify and modify biomedical, behavioral and social risks to the woman's health or pregnancy outcome through prevention and management. Certain steps should be taken before conception or early in pregnancy to maximize health outcomes. The American College of Obstetricians and Gynecologists (ACOG) recommends that all health encounters during a woman's reproductive years, particularly those that are part of preconception care, should include counseling on appropriate health behaviors to optimize pregnancy outcomes and prevent maternal mortality.

Schmitt (2012), is of the opinion that a woman should start taking care of herself before she starts trying to become pregnant. This is called preconception health. It means knowing how health conditions and risk factors could affect you or your unborn baby if you become pregnant. For example, some foods, habits, and medicines can harm your baby — even before the baby is conceived. Some health problems also can affect pregnancy. Talk to your doctor before pregnancy to learn what you can do to prepare your body. Women should prepare for pregnancy before becoming sexually active. Ideally, women should give themselves at least 3 months to prepare before getting pregnancy.

Prenatal Care: Prenatal care is perhaps the most important factor which determines the outcome of pregnancy. It has long been endorsed as a means to identify mothers at risk for delivering a preterm infant and to provide an array of available medical, nutritional, and educational interventions to reduce the risk of low birth weight and other adverse pregnancy conditions and outcomes. Today, prenatal care typically is initiated in the first trimester of pregnancy and has an increasing schedule of visits as the pregnancy progresses. The content of this care usually includes screening for a variety of medical conditions, physical examinations and educational or counseling services. Preconception care provides similar aspects, but instead targets all women of reproductive age, during adolescence and before the first pregnancy, and between pregnancies.

Prenatal care is the care a woman gets during pregnancy. Prenatal care should begin as soon as a woman knows or suspects that she is pregnant. Early and regular prenatal visits with a health care provider are important for the health of both the mother and the foetus. Prenatal care is important to help promote a healthy pregnancy. Women who do not seek prenatal care are three times likely to deliver a low birth weight infant and lack of prenatal care can also increase the risk of infant death (women's health 2012).

Prenatal care is an important part of basic maternal health care because these visits may be a woman's first interaction with the health system. They are an important opportunities to assess her overall health, and to speak with her about her sexual and reproductive health and rights. Even though a great majority of complications arise with little or no warning among women who have no risk factors (UNIFPA 2012), this particular care is not common to individuals even in the urban areas.

2.3.1.2 Antenatal Care (ANC)

Antenatal care is the care received during pregnancy from skilled health personnel such as the goal oriented model recommended by the WHO which include 4-5 visits for

pregnant women who are not having medical problems (Dairo and Owoyokun, 2010). There is documented evidence of a national policy and/or Ministry of Health (MoH) guidelines for a recommended minimum package of services to be provided by antenatal care (ANC) facilities. Variations exist among recommended essential and minimum care packages, and can be attributed to the types of health risks prevalent in different settings (for example, areas of endemic malaria or generalized HIV epidemic). For women whose pregnancies are progressing normally, WHO recommends a minimum of four ANC visits, ideally at 16 weeks, 24-28 weeks, 32 weeks and 36 weeks (USAID/Population Council, 2006).

It is recommended that expectant mothers would receive at least four antenatal visits, in which a health worker can check for signs of ill health – such as underweight, anaemia or infection – and monitor the health of the fetus (Schmitt 2012). During these visits, women are counseled on nutrition and hygiene to improve their health prior to, and following, delivery. They can also develop a birth plan laying out how to reach care and what to do in case of an emergency. Despite the importance of antenatal care to predict and prevent some complications, many are sudden from the onset, and unpredictable. In the primary health care settings, women learn the health benefits of spacing births and how to plan their families. They are also counseled on newborn care and the importance of birth registration. While antenatal visits may not prevent complications, women who receive antenatal care are more likely to deliver with the help of a skilled birth attendant, who can recognize and address these issues.

According to WHO, “Preventing problems for mothers and babies depends on an operational continuum of care with accessible, high quality care before and during pregnancy, childbirth, and the postnatal period. It also depends on the support available to help pregnant women reach services, particularly when complications occur. An

important element in this continuum of care is effective ANC." The goal of the ANC package is to prepare for birth and parenthood as well as prevent, detect, alleviate, or manage the three types of health problems during pregnancy that affect mothers and babies. These are:

- Complications of pregnancy itself
- pre-existing conditions that worsen during pregnancy and
- Effects of unhealthy lifestyles.

Antenatal care (ANC) is very vital because all pregnant women are at the risk of developing complications and because many of these complications are unpredictable, it is important to ensure that all pregnant women have access to preventive interventions, early diagnosis and treatment for problems, and emergency care when needed. It is now emphasized that ANC should focus on early detection and skilled, and timely interventions for factors having proven impacts on maternal and infant outcomes (Maternal and Neonatal Health Program, 2001a). The strength of ANC, therefore, lies in its role for early identification of complications; and provision of information on danger signs and how to handle them (Yuster, 1995, cited in Adamu, 2011). Antenatal care also makes it possible to screen for sexually transmitted diseases such as HIV infection, which is known to have taken its toll in much of the developing world (Adamu, 2011).

2.3.1.3 Delivery Care

The aim of global safe motherhood programme in 1987 was to ensure that the outcome of every pregnancy is a healthy mother and a healthy newborn. Attendance by a medically trained person during labour and delivery can facilitate such referral and is one goal of the safe motherhood initiative. An important indicator of health service coverage is the proportion of births delivered in a health facility where obstetric complications can be managed (Koblinsky et al., 1995; Maine et al., 1995).

There's a possibility that a delivery may have complications, the emphasis is to promote the use of skilled and trained delivery care providers and to ensure that all women have access to life-saving emergency interventions at the time of labor and delivery. In many countries, deliveries occur at home attended by traditional birth attendants (TBAs). Previously, there were extensive efforts and funds expended toward upgrading the skills of TBAs, but safe motherhood program initiatives have concluded that, in almost all cases, "the level of skill among 'skilled birth attendants' is lower than it is 'safe' for safe motherhood. It is also noted that in-service training cannot improve the skill level of trained providers to the level of competency desired in all skills" (Maternal and Neonatal Health Program, 2001). With this conclusion, there is a shift in the definition of qualified delivery providers to "Persons with midwifery skills who have been trained to proficiency in the skills necessary to manage normal deliveries and diagnose and manage or refer complicated cases" (Koblinsky, 2000).

2.3.1.4 Post Natal Care (PNC)

Post-natal care, provided in the six weeks following delivery, is as important as antenatal care. Bleeding, sepsis and hypertensive disorders can all take place after a woman has exited the health centre. And newborns are also extremely vulnerable in the immediate aftermath of birth (UNIFPA 2012). The post-natal period (or called post-partum, if in reference to the mother only) is defined by WHO as the period beginning one hour after the delivery of the placenta and continuing until 6 weeks (42 days) after delivery. According to WHO (1998), "Postnatal care is the care of mom and the baby immediately after childbirth." The period following the birth of the child is called the 'postnatal period'. Postnatal care is essential to save the life of the mother and her newborn. Knowledge on the determinants of postnatal care assists the policy makers to design, justify and implement appropriate interventions. Khanal, Adhikari, Kankee and

Gavida (2014) defined postnatal period as the time immediately after the birth of the baby and up to six weeks (42 days) after birth. It is a critical period for the newborn and the mother. Immediately after birth, bleeding and infection pose the greatest risk to the mother's life, while preterm birth, asphyxia and severe infections pose greatest risk to newborn.

According to Ugboaja, Berthrand, Igwegbe and Obi-Nwosu (2013), the days and weeks following childbirth called the postnatal period is a critical phase in the lives of mothers and newborn babies. Major changes occur during this period which determines the well-being of mothers and newborns. Yet, this is the most neglected time for the provision of quality services. Lack of appropriate care during this period could result in significant ill health and even death. Rates of provision of skilled care are lower after childbirth when compared to rates before and during childbirth.

Most maternal and infant deaths occur during this time. According to WHO (2014), postnatal care is among the major recommended interventions to reduce maternal and newborn deaths globally. This intervention enables skilled health professionals to dictate postpartum problems and potential complications and provide prompt treatment. Despite the beneficial impact of postnatal care, most women do not attend postnatal care services. It is, therefore, pertinent to understand the factors influencing the decisions not to seek postnatal care. A clear understanding of these factors will provide a policy tool for the development of community interventions that will increase the use of postnatal care services.

It is important for mothers to receive PNC within the first forty days after birth as it has been recorded that more than 60% of maternal deaths take place during the postnatal period (Gill et al, 2007). PNC also provides an opportunity to counsel the new mother on family planning and caring for herself and her newborn, as well as to assess the

newborn for any problems. In developing countries, the most common causes of maternal deaths during the postpartum period are hemorrhage, infections and hypertensive disorders (Li et al, 1996 cited in Adamu, 2011). However, accessing PNC is the only way of solving maternal death. More so, it has been reported by Population Council (2010) that less than 30% of women in developing countries access or receive care or medical follow-up in the period immediately following childbirth.

In December 2012, the UN General Assembly adopted a resolution urging governments to move towards providing all people access to affordable quality healthcare services, including primary care and maternal health services. Primary care saves lives from the provision of maternal care, immunizations and newborn health to a consistent supply of sexual and reproductive health services (United Nations, 2013).

According to WHO (2013), a woman reduces the risk of pregnancy related diseases and complications when she visits and utilizes antenatal healthcare services within the first trimester of her pregnancy. Averagely, the WHO (2013) suggests that every pregnant woman visits and receive ANC services from a qualified person (approved health professional) four times before delivery. This supports the assertion that the healthcare that a pregnant mother receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and her child (GDHS, 2008). In this regard, utilization of antenatal healthcare services is paramount to reducing maternal mortality globally, within Sub-Saharan Africa and Northern Nigeria in particular.

Moreover, the access and use of MHS was reported to be low for women living in communities without appropriate health facility because of the interactions between transport fare, and cost of fees for services to be rendered (Fatso et al., 2008, 2009). Studies in Ghana (Hagman, 2013); Kenya (Desai et al., 2013 and Essendi et al., 2011) and

Nigeria (Babalola and Fatusi, 2009; Ebuehi and Akintujoye, 2012; Onah, Ikeako and Iloabachie, 2006) have indicated that the institutional and technical competence of a health facility that provides MHS services is a major consideration among women irrespective of their social status. The under use of MHS is commonly seen among rural women in developing countries generally and African countries in particular. Rural women are largely dependent on their spouse and other family members for financial support, and most of them do adhere to the norms and traditions that stressed the authority of husband over their wives (Adamu and Salihu, 2002; Idris et al, 2006; Magoma et al., 2010).

A community based study in Nigeria reported that nearly half of all participants cited the lack of use of modern health services, distance, and the need to have other members of the family to accompany the sick or pregnant women increase the overall cost in terms of transportation fare, feeding and hospital charges (Ayeni, 1987). Nnadi and Kabat (1984), in an extensive national survey on the choice of health services amongst the Igbos, Hausas and Yorubas; the 3 major ethnic groups in Nigeria, constituting about 50% of the Nigeria's population, reported that individuals who lived near modern health facilities have higher use rates for both urban and rural clients. Other factors reported in Nigeria, that are responsible for low ANC attendance and hospital deliveries include, the perceived quality of service and the supposed family members to take decision on health matters, particularly in the north-west(Harrison,1983;oche et al.2010,Umar et al 2011) South-West (Egunjobi,1983) and South-South(Abasiekang,1981) in geopolitical zones of Nigeria. This means that the use of antenatal and natal services depends on the social, cultural and economic disposition of women.

2.3.1.5 Family Planning

Family planning assists families in preserving maternal and child health, preventing unwanted pregnancies and reducing women's exposure to the complications of childbirth and abortion (United Nations, 1995) in Tilak (2013). It also offers women more time to care for their children and themselves. Family planning cannot help reduce risk associated with pregnancy and delivery once a woman is pregnant and is strictly a prior-to-pregnancy strategy. Access to family planning services that will guarantee spacing or limiting births can reduce the prevalence of unwanted pregnancies and poor pregnancy outcomes.

2.4 Types of Maternal Information Services

Audra Wellington (2017), noted that with the increasing number of chronic conditions such as obesity, hypertension and bad life-style choices many women do not start their pregnancy with a clean bill of health. These are the women who are in most need of case management, primary care and other services to bridge the gap between health and social disparities. This gap could be bridged with the provision of adequate maternal health information (MHI).

Mvula (2010), in an investigation of health and nutrition messages passed to pregnant women reported that all the nurses (100%) said that they measured the weight blood pressure as well as physically examined the women and conducted health talks. The nurses also said that they had personal chats with the women. In comparison, 58% of the women said they were physically examined on the belly and another 53% said they had their weight measured. The women also mentioned other services that were provided to them which included HIV testing and immunizations. Some women (37%) also said that they had attended health talks. Despite the fact that 93% of the pregnant women received iron supplements, only 7% mentioned it as part of routine service provided. These were

pregnant women who were between 15 to 19 years of age and were living within 1 to 5 km from the hospital.

2.5 Awareness of Information on Maternal Health

In an information-seeking situation, awareness refers to the information seeker being aware of various aspects of the searching and sense-making processes, including the task and its context, past and present actions, and various attributes of the information objects and the system. Awareness is one of the most important issues that is identified and addressed in the computer-supported cooperative work (CSCW) literature. One of the questions often asked about awareness in CSCW is "The awareness of what?" (Schmidt, 2002) argued that we should talk about awareness not as a separate entity, but as somebody's being aware of some particular occurrence. In other words, the term awareness is only meaningful if it refers to a person's awareness of something. Heath, Svensson, Hindmarsh, Luff and Lehn (2002) suggested that awareness is not simply a state of mind or a cognitive ability, but rather a feature of practical action, which is systematically accomplished within developing course of everyday activities.

Shefner-Rogers and Sood (2004) reported that the involvement and participation of the community in maternal health activities, increases their knowledge and awareness of danger signs in pregnancy. Community awareness of maternal health problems was evident following exposure to maternal health education (Manandhar 2004; Ogwang et al. 2012). Most community members obtained their maternal health education through health campaigns and activities in the community. Maternal health campaigns usually provide education through multimedia and support from health workers within the community. Multimedia campaigns (television, radio, print leaflets and posters), impart new knowledge about maternal health and the danger signs in pregnancy (Shefner-Rogers and Sood, 2004).

Perreira (2002) also suggests that education, communication and information from health professionals, either in the community or in health the centres, increased the knowledge of the community and engages them in being alert to maternal health problems and carrying out birth preparation activities in order to reduce maternal death. Perreira's (2002) case study identified those women who were exposed to maternal health education both in maternity clinics and in the community who successfully improved their knowledge and awareness of the danger signs in pregnancy. Although the study did not provide information on which of these two settings was more effective in imparting information, education and communication on maternal health and the danger signs in pregnancy, the campaign during maternal health programmes effectively increased the knowledge and awareness of maternal health in the community.

Some studies were carried out on the involvement of the community in maternal health activities and the impact on the increase in knowledge and awareness of maternal health. The involvement of family members and participation of the community in maternal activities increased knowledge (Mullany et al. 2006; Abdulkarim et al. 2008), and increased awareness of the danger signs and obstetric problems in pregnancy (Perreira 2002; Manandhar 2004; Shefner-Rogers and Sood 2004; Ogwang et al. 2012). Most of the studies related to this topic were conducted in various countries, including Indonesia. These studies highlighted the knowledge gained after the involvement of the community in maternal health activities.

The involvement of family members such as husbands in antenatal care increased their knowledge of maternal health and birth preparation (Mullany et al. 2006; Steen et al. 2012). Engaging the community could also contribute to help the women to access maternal health services, improve knowledge on the causes of maternal mortality and prevent maternal deaths in the community (Abdulkarim et al. 2008; Ogwang et al. 2012).

Studies conducted by Mullany et al. (2009) identified the importance of involving husbands during pregnancy and childbirth in order to successfully improve women's knowledge and awareness of their maternal health. A randomised controlled trial (henceforth RCT) by Mullany et al. (2009) on the impact of including husbands in antenatal health education in maternity practice in Nepal provided strong evidence in the intervention group. This group was made up of women and their partners who reported making birth preparations, and being more likely to attend the antenatal and postnatal care during pregnancy and childbirth; compared to the control group whose husbands were not included. This study provided a strong and thorough analysis of each step of the intervention. One of the main challenges in an RCT study is having an adequate intervention, as a lot of effort is required to transfer knowledge into action (Jadad, 1998). Once the interventions were applied in the group, the study outcome showed the positive impact of involving male partners in antenatal health education during maternal healthcare.

These studies (Perreira 2002; Manandhar 2002; Shefner-Rogers and Sood 2004; Ogwang et al. 2012) also indicate that an increase in birth preparation activities follows an increase in knowledge of maternal health. An evaluation study conducted by Ogwang et al. (2012) observed that the community emergency support intervention programme on maternal health in Uganda had successfully created awareness in the community about maternal health, and further actions were undertaken when obstetric emergencies occurred. These actions included the provision of transportation and the referral of women to the nearest health facilities. This study provided a clear explanation of the community context, which was beneficial for the sustainability of the programme. Some other studies on maternal health programme evaluations (Perreira 2002; Manandhar 2004; Shefner-Rogers and Sood 2004) have also successfully provided evidence about actions

to promote maternal healthcare after the health programmes were implemented. However, most of these studies were conducted only a few months after the maternal health campaign was carried out and education was provided. This short period after the campaign may not have been enough to fully capture changes in the knowledge and behaviour of the community and family members (Shefner-Rogers and Sood, 2004). Further research into how this knowledge and behaviour could be applied in the community during pregnancy and childbirth is still to be carried out.

Mullany et al (2006) and Steen et al (2012) in their studies reported that the involvement of family members such as husbands, in antenatal care increased their knowledge of maternal health and birth preparation. This study provided a strong and thorough analysis of each step of the intervention. One of the main challenges in an RCT study is having an adequate intervention, as a lot of effort is required to transfer knowledge into action (Jadad, 1998). Once the interventions were applied in the group, the study outcome showed the positive impact of involving male partners in antenatal health education during maternal healthcare.

2.6 Sources on Maternal Health Information

In recent years there has been increased interest in both developed and developing countries on population's access to health information (Anasi, 2012). More people are searching for health information on different health issues (Fox, 2005 in Nwangakala (2016). Patients' lack of adequate health information from their care providers caused them to seek information from other sources such as internet and printed materials.

Maternal and child health information forms the cradle of human right that allows mothers to access quality and reliable health care hence, decrease morbidity and mortality rates, aimed to be achieved in global goals number 3 and 17 of 2015 by 2030. Globally, over 80% of community households have limited access to effective, reliable, efficient

and quality maternal and child health information, especially in Sub-Saharan Africa. They depend solely on health professionals and community health workers (CHWs) as their main sources of health information, with large diversified society of demographic, socio-economic and socio-cultural factors.

Studies indicate that individuals engaging in health information-seeking are more likely to have better health knowledge, feel more comfortable and confident when dealing with personal issues with health professionals and they demonstrate higher levels of health promotion activities than people who do not look out for health information (Shieh et al.2001**;** Buseha et al., 2002) in Tsehay (2016)**.** Providing health information is considered to be an important component by maternal health information providers and the maternity information may guide women in their decision making processes towards their health and the health of their children (Shieh et al, 2001 in Tsehay, 2016). To this end, knowing their information needs and sources of maternity information plays a paramount role. Research documents such as books,journals, videos on maternal health that pregnant women have various information needs and sought various kinds of information sources to satisfy their health information needs during pregnancy.

Currently, there is a wide range of health information resources produced by different types of providers to disseminate health care information to consumers and to guide health behaviours (Nicholson et al., 2003). When seeking specific kinds of information, some women are engaged in a range of channels. Whereas others confine themselves to a more restricted few channels, others do not. Relatively speaking, as Grimes et al (2014) contended, the woman's ability to access wide range of variety sources can be highly impacted by the access she has to different sources and her ability to comprehend the available information. Thus, beyond creating access to information, knowing their choices and understanding their health literacy level could play a vital role

in meeting their information needs effectively (Grimes et al, 2014). Roxanne (2004) in a study is of the view that individuals who receive information from multiple sources have a better chance of paying attention to the information being provided and taking actions to improve their health status. The pregnant women reported that TBAs and mother-in-laws were their primary sources of maternal health information. However, because there were health facilities in the study population that offers maternal healthcare services, the researcher wanted to know if the women also sought maternal health advice/information from the skilled care providers or if they were offered the health information when they went for ANC visits. Majority of the women claimed that they were not offered any maternal health information or health education at the health facilities.

Interestingly, in a survey carried out by Wafula (2007) in Silali and Owino (2016), in Kenya in Trans-Nzoia and Umlalazi districts in South Africa on the sources of health information among rural women, results showed that family and friends were the main sources of maternal health information in Kenya. In contrast, Silali and Owino (2016) in their study found out that family and friends were the least sources of maternal health information.

Aaronson et al, (1988) in Uloma and Adedotun (2013) revealed that women in the United States of America often look for pregnancy related information from health care providers and books. As their investigation indicates, health care providers and books were preferred by the majority of women as their first and second most important sources of information. The research also examined the relationship between information sources and the socio-economic status of pregnant women and revealed that women of higher socio-economic status relied more on books and less on family than did women of lower socio-economic status.

Similarly, Lewallen (2004) examined the health behaviour and sources of health information of low-income pregnant women living in the South Eastern United States of America in the research and confirmed that women learn more about health behaviour from interpersonal sources. That is, among family members while mothers were identified as a single and a major information source about health pregnancy issues. Additionally, other interpersonal sources like health professionals and physicians were sources often consulted by women. The study further mentioned written and audio as information sources were also sought by women.

An investigation by Davis and Flannery (2001) on the health information delivery systems for Puerto Rican women reported that health information was accessed through informal and formal settings. These wide ranges of information obtaining settings were regarded as major sources of health information for Puerto Rican Women.

Among the selected information obtaining channels, obtaining information from friends, remedies handed down through word of mouth, childbirth classes and health care settings are few to mention (Davis and Flannery, 2001). Interestingly, the research showed how cultural values were enshrined in the Porto Rican health information seeking culture and the meaning of health information was developed through the lens of Puerto Rican culture. A Puerto Rican family member who spoke in Spanish was perceived as a trustworthy source of health information (Davis and Flannery, 2001). Whereas interpersonal sources that do not speak the language and were strangers to them were considered to be non trustworthy sources (Davis and Flannery, 2001).Any source of information that doesn't use the language of the recipients to fully express the particular information, then the recipient can't accept it as credible. There are also researches that documented the maternal information needs and sources of information on women residing in Africa (Tsehay, 2016).

Nwagwu and Ajama (2011) examined the health information needs, sources and information seeking behaviour of women living in rural Nigeria. Using data collected through focus group discussion and a questionnaire, the research revealed that women owned and used radios more than other sources, and they sought health information mainly for themselves and their children. Providers often disseminate health information using the health education sessions and pregnancy follow-up visits in which most of the women participated (Naanyu et al., 2013).

Davies and Bath (2002) explored the interpersonal sources of health and maternity information for Somali women living in the UK. The study revealed that women referred and used information from a wide range of interpersonal sources. Accordingly, most of the women highly relied on information from general practitioners and from information sought during health visits as their primary sources and they also consulted information sources like friends and neighbours. However, the women preferred community health forums organized by health professionals whereby professionals were invited to address different kinds of health issues. Furthermore, informal interpersonal health sources which were considered to be an easily accessible way by women provided the means through which further information were consulted and referred. Although information on maternal health issues were provided by a wide range of channels**,** the ability to chose and the tendency to use sources of maternity information can be determined and affected by different factors.

Carol Shieh et al., (2009) examined the influence of health literacy on health information seeking behaviour of low income pregnant women in the United States. The study noted that low health literacy in childbearing women affected the women's pregnancy knowledge and potentially the health of their babies. Pregnant women who had low health literacy level were found to have had more personal barriers to information

seeking than women who had high literacy level. Thus, using interventions that promotes the information-seeking skills and creates an access to information may be helpful for women who have low health literacy (Shieh et al., 2009) in Tsehay (2016).

Owino (2016) reported that respondents who were educated up to secondary and tertiary levels mostly preferred health professionals at (59.0.0%) and (50.0%), respectively, as their main source of information followed by Community Health Worker and at (25.6%) and (25.0%), respectively. Level of education, statistically, significantly influenced the choice of source of quality maternal and child health information (P value .0.5, 95% CI 3.3, 8.1). Silali and Owino (2016) in their study reported that most of the women who delivered in hospitals got information from posters (77.8%), followed by those who got information from the churches (76.9%). Those who got information from health facility were (74.2%) whereas those who obtained the information from community health workers were (59.4%). Media source was used by (58.8%) of the respondents, the least source used by women who delivered in hospital (50%) was mobile publicity events. The chance of getting information from place of delivery was more reliable with (P value 0.3, 95% CI 2.0, 3.8)

Ogunmodede (2013) submitted that health information is a vital resource for individuals who seek information for as varying reasons as mere curiosity, self-diagnosis and analyzing and evaluating treatment for health. In the past, formal sources of information were books and newspapers which dated back to nearly a century but nowadays means of transmitting information has increased with a variety of electronic media for interactive health communication (for example, the Internet, CD-ROMs, and personal digital assistants [PDAs]) which can serve as sources of individualized health information, reminders and social support for health behaviour change (Case, 2007). These new technologies may also connect individuals with similar health concerns around

the world. Then there are also informal sources such as family and friends whereby people interact verbally to get information about some health issues.

Although government is aware that information can lead to the understanding of rural women on maternal health services, its focus seemed to be more on the provision of the service itself rather than knowing the information needs, seeking and using health information by the mothers who are supposed to utilize these services. A project of this kind will only be successful when cultural and religious values of the beneficiaries are being respected. It is in this regard that Idris et al (2013) states that there is the need for local studies to generate information that is necessary for planning and implementation of public health programs in manners that take individual local peculiarities into consideration. The researcher wants to use the skill of collecting, organizing, storing, retrieving and disseminating information to solve these problems, thereby using information as a resource that can be applied to improve the quality of people's lives and avert these maternal deaths.

2.7 Access to Information on Maternal Health

For nearly half a century it has been said that we inhabit a knowledge or information society. Today's information society is different from the industrial society of the early 1900s in that the global economy is now heavily affected by information whereas 100 years ago it was primarily influenced by production of goods. As information and information services have taken on an increasingly important role in this economy, in order for individuals and groups to fully participate we require access to the kind of information that grants full enfranchisement and economic integration. This information access includes not only the ability to obtain information but also the ability to use the information obtained Whitely (1994).

Information access according Thompson and Afzal (2011) can be thought of as a continuum beginning with information acquisition and culminating at information use. Information access begins at a point where a user comes into contact with information. Lack of information access will greatly determine the extent to which a group can be considered information rich or poor. It can be argued that information access and information poverty have a close association; thus information poverty has been defined by chatman (1996) as "A lack or scarcity of information about resources or opportunities available within and outside one's community" and information-poor as individuals who "perceive themselves to be devoid of any sources that might help them."

Access means that information and services are available and within the reach of women who need them. Clients need to receive information and counselling on their health and health needs in order to make timely informed decisions about their reproductive health. Wolfson (2006) reported that studies has shown that access to quality health care information leads to real improvements in reproductive health.

Solid information and positive interaction between client and provider can contribute to client confidence and compliance. Evidence supports the idea that women who are given the power and information to make decisions can save their own lives in cases of obstetric emergencies. For example, in India, the Rural Women's Social Education Centre undertook an intensive health education campaign covering more than 20,000 rural poor agricultural labourers. The campaign identified pregnant women, who were then given health advice and encouraged to deliver in the hospital. A series of workshops and pamphlets explained the process of childbirth, appropriate self-care and danger signals in pregnancy. As a result, three-quarter (76%) of those with complications such as prolonged or obstructed labour, heavy loss of blood during labour or postpartum, and hypertensive disorders of pregnancy, delivered in the hospital (Sundari, 1993). In

rural Bangladesh, pictorial cards were used to raise community awareness about the complications of pregnancy and childbirth and to encourage women to use health facilities in emergencies. Pregnant women who received a pictorial card were more likely to use institutional facilities for the management of their obstetric complications compared to those who did not receive the cards (Khanum et al., 2000).

When information practices are understood to be shaped by social context, privilege and marginalization alternately impact not only access-to but also use-of information resources. People respond to information by seeking for more information, also by sharing or spreading information, creating documents, telling other people (krikelas 1983; wilson 1994;haythornthwaite 1996; Williamson 1998; Pettigrew; roux) and also by taking mental notes.Avoiding or ignoring information, hiding and/or destroying information, disputing or disbelieving information (Chatman, 2000 in Godbold, 2006)

Good quality services require health care providers to have adequate clinical skills and to be sensitive to women's needs. Facilities are required to have necessary equipment and supplies, and referral systems to function well enough to ensure that women with complications get essential treatment. Advocates can work to increase women's access to information or work to remove operational constraints in providing effective services.

Services for safe motherhood should include:

- Family planning counseling, information, and services;
- Health care before, during, and after childbirth;
- Skilled assistance during delivery;
- Care for obstetric complications, including emergencies;
- Health education for women, adolescents, and communities; and

- Services to prevent and manage the complications of unsafe abortion.

Studies have shown that women of reproductive age in Africa are still not given opportunity to make their own decisions as most of them have low education level and considered low status in the society compared to men.(UNICEF 2008) This has made it difficult for the women of reproductive age from Sub-Saharan Africa to access maternal health information effectively hence the lack of knowledge on maternal health services and these justifies reasons for high maternal mortality in most of the African countries (Magadi, Madise and Rodrigues, 2000 in Sila and Owino, 2016). Erica (2008) in Sila and Owino (2016) in a study reported that low status of girls and women denied them the power to make decisions that affected their reproductive health.

2.8 Barriers to Information on Maternal Health

Illiteracy and access to knowledge are two of the key problems that inhibit socio-economic development in developing countries. Rural women of reproductive age lack the vital or basic maternal health information they need to improve their health, and because most of them are illiterate, they cannot benefit from many educational methods. Furthermore, lack of electricity and poor roads isolate them in accessing various sources of maternal health information. In Ghana according to a non-governmental organization which conducted a pilot test on the use of talk book in accessing health information in rural area in northern Ghana observed that most of these Organizations travel to villages where they share knowledge about health but fail to consider the population reached

The method of delivering information is expensive it cost US$20-$40 per trip. It is also inefficient because each visit occurred infrequently and covers various topics causing many community members to forget information that is not immediately applicable to them. This scenario calls for improvement to access to health knowledge to the rural

woman, due to the fact that the rural woman of reproductive age has low or no education hence higher percentage in poor health status compared to urban women. In Nigeria one in 10 women read newspaper weekly compared with three in ten men . This implies that most women of reproductive age have limited access to sources of maternal health information.

Poverty can inhibit or is a barrier to non utilization of maternal health services. For instance National Partnership for Women and Families (2018), reported on maternal health that, Black women in the United States experienced unacceptably poor maternal health outcomes, including disproportionately high rates of death related to pregnancy or childbirth. Both societal and health system factors contribute to high rates of poor health outcomes and maternal mortality for Black women, who are more likely to experience barriers to obtaining quality care and often face racial discrimination throughout their lives.

Due to racism, sexism and other systemic barriers that have contributed to income inequality, Black women are typically paid just 63 cents for every dollar paid to white, non-Hispanic men. Median wages for Black women in the United States are $36, 227 per year, which is $21,698 less than the median wages for white, non-Hispanic men. These lost wages mean Black women and their families have less money to support themselves and their families, and may have to choose between essential resources like housing, childcare, food and health care.

Erasmus (2017) carried out a research on the barriers to access for maternal health care among pregnant adolescents and the results showed that Negative perceptions included expected mistreatment by nursing staff and expected long waiting times. Many participants also reported poor knowledge of maternal health care services, which was a barrier to access to maternal health care services.

Akaliagung (2015) noted that key challenges inhibiting success in accessing maternal health services in Ghana were staff turnover, inadequate supervision, cultural practices and inadequate infrastructure**.** Barriers cited by Edu et al (2017) were poor knowledge of service, economic barriers (indirect cost and transportation cost), geographical barrier, drug stock outs, poor referral system, no means of transportation during labour, religious and cultural beliefs, women's low status in the society, poor quality of service, poor planning, monitoring and sustainability of programs.

Poverty, low education levels, cultural practices and women's lack of decision making power significantly contributed to limited access and non-utilization of skilled maternal services which aggravates the effect of direct causes (WHO, 2012). However, maternal deaths are preventable provided that the pregnant women effectively utilize skilled healthcare services during pregnancy, childbirth and postnatal period (Chou et al, 2012 in Silali and Owino, 2016). Ogunmodede et al (2013) noted that ignorance, illiteracy, lack of health centres, power supply, attitude and perception towards information providers and language were found to be the major bottlenecks in the course of looking, accessing and utilizing sources of maternity information. Naanyu et al (2013) in a study on maternity relation information on mothers who were living in the western Kenya reported that women use church, public media and health care providers as their major sources of information for family planning issues.

In conclusion, the researcher found a gap in literature that identified experiences of primigravida and how they access information on maternal health care services in Fatima community. The researcher didn't come across any literature that found that primigravida can't openly say they are pregnant because it's the first pregnancy, they believe a missed period can be translated to pregnancy but don't believe any intervention can prevent

mortality also grudges and rivalry can prevent a woman from accessing maternal health information.

2.9 Summary of the Review

Studies have found out that maternal mortality has been a constant setback in the world, unlike men, women are the vulnerable ones at risk of maternal mortality. The health of a nation is measured by the health of its people, studies have indicated that half a million women die every year from pregnancy related complications and in spite efforts to curb maternal mortality the problem still persist. Among the researches that have been carried out in previous studies, the perspective from which the problem of maternal mortality has been viewed is from lack of infrastructure, services, staffing and even funding. There is no research that viewed the problem from the perspective of the primigravida whose life is at risk of pregnancy complications, which if neglected could lead to death. The primigravida is in the highest need of information on maternal health services hence where the Gap was identified in literature.

Findings from other studies have identified the importance of health education to pregnant women but without identifying the context and culture of the rural women, therefore information that may be accepted in other context may not even make sense to rural women. Government and health workers do not take into consideration the role of culture and context when disseminating information to rural women but they play a very vital role because literature have also found out that culture hinders promotion of healthcare to prevent diseases. The Research is qualitative using hermeneutics phenomenology because the research was interested in investigating the ‘experiences of primigravida’ and how they access information on maternal health.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter discussed the research methodology and design that was used in the study, population of the study, sample and sampling techniques, instruments for data collection and procedure for data analysis, while explaining the stages and processes involved in the study, phenomenology was used.

3.2 Research Method Adopted

This study adopted qualitative research methodology. The reason for choosing qualitative method is because the study aimed at interpreting human experiences and qualitative method is a better method of interpreting events, opinions and experiences.

3.2.1 Research Design

The researcher employed hermeneutical/interpretative phenomenology to achieve the objectives of the study. Qualitative research is suitable for the research because it is concerned with developing explanations of social phenomena. That is to say, it aimed to help us to understand the social world in which we live and why things are the way they are. According to Hancock, Okleford and Windridge (2009), "Qualitative research method understood the experiences and attitudes of patients in the community to answer questions about the 'what', 'how' or 'why' of a phenomenon (Patton and Cochran, 2002).

Furthermore, the employment of hermeneutical/interpretative phenomenology to is because the study aimed at investigating the experiences of primigravida in Fatima village with respect to access to information on maternal health services. Also the hermeneutics (interpretative) phenomenology study was suitable because it directly investigated and described a phenomenon consciously experienced and as free as possible from unexamined preconceptions and presuppositions (Biemel, 2015). This 'experience'

is a conscious process and development of interpretations of these experiences is the essence of the research. It is a process whereby the researcher is concerned with the understanding of what it is like from the point of view of the respondents (Ballad and Bawalan, 2012).

Phenomenology encompasses narratives which is a story of the day in the lives of individuals as told by these individuals. Interpretative phenomenology concentrates on interpreting the meaning in the phenomenon that is concealed and thus not immediately revealed to direct investigation, analysis and description.While using this type of phenomenology, the researcher applied the skill of reading texts (text of transcripts) and spoken accounts of personal experience. In the application of hermeneutic phenomenology the requirement is to examine the text, to reflect on the content to discover something 'telling', something 'meaningful', something 'thematic' (van Manen, 1997).

3.3 Population of the Study

The population of the study consists of all reproductive women between the ages of 13-49 years in Fatima village of Zaria Local Government in Kaduna State. The study was conducted among Hausa speaking women and it is a homogeneous setting, a dominant ethnic group in northern Nigeria. The choice of this ethnic group was largely predicated on the traditional character of this group and its negligence towards the use of maternal health services. The number of productive women in this community is high and was not favourable for an in-depth interview because it is time consuming. Therefore, a sample which constituted first pregnant women, women who have delivered their babies for the first time or whose first babies were less than 42 days old were the selected participants.

3.4 Sample and Sampling Techniques

Snowball sampling was considered as the most appropriate kind of non-probability purposive sampling to identify participants. The selection of the sample was based on the purpose of the research. That is, searching for those who "have experienced being pregnant for the first time or have delivered a baby that was less than 42 days old." Snowball sampling technique was used for this study because primigravida in Fatima village do not easily disclose first pregnancy. Any woman who openly accepts that she was pregnant when it was her first pregnancy is regarded as not having a good home training. Snowball is a special non-probability method used when the desired sample characteristic is rare, participants with whom contact had already been made used their social networks to refer the researcher to other people to participate and contribute to the study. Snowball sampling is often used to find and recruit "hidden populations," that is, groups not easily accessible to researchers through other sampling strategy.

Boyd (2001) regards 2-10 participants or research subjects as sufficient to reach saturation while Creswell in Groenwald (2004) recommended "long interviews with up to 10 people" as been sufficient for a phenomenological study. Therefore, a sample size of 10 primigravida was recruited because the important point was to describe the meaning of a phenomenon for a small number of individuals who have experienced the phenomenon.

One subject gave the researcher the name of another subject, who in turn provided the name of a third, and so on (Vogt, 1999) in Cohen (2007) and added that in snowball, researchers identify a small number of individuals who have the characteristics in which they are interested. These people are then used as informants to identify, or put the researchers in touch with others who qualify for inclusion and they, in turn, identify yet others – hence the term "snowball." This method is useful for the selection from a population where access is difficult, when it is a sensitive topic (e.g. teenage solvent

abusers) or where communication networks are undeveloped. This procedure was appropriate for the study because primigravida in the rural communities were shy and were only identified by their peers or those relating with them such as their spouses. Interviews continued until the topic was exhausted or saturated, that was when respondents introduced no new perspectives on the topic.

3.5 Instrument for Data Collection

The instrument used for data collection was the interview. The researcher with the aid of an interview guide went to Fatima village and interviewed primagravida face to face. The interview had five broad questions with sub-questions. The questions were open-ended so as to allow primigravida the opportunity to express themselves fully in the manner they wanted (see appendix ("A" for a sample of the questionnaire). It was a face-to-face interview because, according to Englander (2012), "The face-to-face interview is often longer and richer in terms of nuances and depth." The interview was recorded with the aid of a tape recorder for verbal narrations using open-ended questions to allow respondents to express themselves fully and to share their stories in their own words (Sloan and Bowe, 2014). In hermeneutic phenomenology, the interview serves very specific purposes. First, it is used as a means for exploring and gathering narratives (or stories) of live experiences. Second, it is a vehicle by which we develop a conversational relationship with the participant about the meaning of an experience. This may be achieved through reflection with the participant on the topic at hand (Manen, 1997). This data gathering technique afforded the researcher data for transcript analysis. Creswell (2013) describes in-depth interviews as the primary means of collecting information for a phenomenological study.

3.6 Procedure for Data Collection

The researcher went to the participants in their natural settings. The researcher introduced herself with an introductory letter from her department with a consent form to the village head of Fatima and informed the village head about her mission to the vicinity. The assistance and co-operation of the village head for a successful research was sought. The assistance needed from him, which involved being familiar with females from that village who took us to different houses to recruit participants was solicited and obtained. The village head was clearly informed about the criteria for selection of participants; the nature and the benefits of the study. The researcher interviewed the respondents with the help of an assistant who helped in recording the interviews with the aid of a recorder and notebook using the interview guide.

The researcher went to individual homes of participants and engaged them in general discussions about child bearing and pregnancy to have a good rapport since she is also a mother. The duration of the interview varies from one respondent to the other but approximately the interview run time was 50 minutes per participant. The researcher was a fluent speaker of the language of the participants. This made it easier to understand them without the need to constantly ask for clarification. The researcher became very familiar with the respondents and there was follow up once in a while during this period if there was a response that was ambiguous during transcription.

3.7 Procedure for Data Analysis

The interviews were analyzed using a systematic method of thematic data analysis as informed by Clark and Brauwn (2015). According to this method which allowed for systematic identification of participants' interpretations and constructs which were then aligned with the researchers' own understanding, interpretation and constructs. The thematic approach that was developed involves a six-phase process as enumerated below:

1. Familiarization with the data: The researcher started by reading and re-reading the data, to become immersed and intimately familiar with its content.
2. Coding: The researcher then created tables with columns and rows generating codes that identified important features of the data that might be relevant to answering the research questions. It involved coding the entire data set, and after that, collating all the codes and relevant data extracts together for later stages of analysis.
3. Searching for categories: This phase involved the transcripts being examined to ensure that the codes identified were significant for broader patterns of meaning. It then involved collating data relating to each category.
4. Reviewing categories: This phase involved checking the related categories against the data set to ensure that they tell a convincing story of the data that answer the research questions. At this phase, categories are typically refined, which sometimes involved them being split, combined or discarded.
5. Defining and naming categories: This phase involved developing a detailed analysis of each category, working out the scope and focus of each category, determining the 'story' of each. It also involved deciding on an informative name for each category.
6. Writing up: finally this phase involved weaving together the narrative and data extracts, and contextualizing the analysis in relation to this thesis.

Although these phases are sequential, and each builds on the previous, analysis is typically a recursive process, with movement back and forth between different phases. So it is not rigid, it is iterative.

3.8 Rigor in quality research

Rigor of the instrument is the ability of the instrument to measure what it is designed to measure. Olaofe (2010) states that validity is the ability of the research instrument to measure (as adequately as possible) the variables purported to be measured. Afolabi (2011) explains that, in any research it is necessary to provide a means of establishing the content validity of the instrument used.

3.8.1 Trustworthiness of the Study

Trustworthiness in qualitative research refers to the process whereby the researcher justifies and demonstrates that the evidence for result reported in the study is strongly sound and debatable (Guba, 1981). In order to achieve trustworthiness in qualitative research, Guba (1981) proposed four constructs of trustworthiness: credibility, transferability, dependability and confirmability.

3.8.2 Credibility

Credibility refers to the confidence researchers have for proving the truth of their findings. It can be proved by various methods such as triangulation, member checking and negative case analysis (Bowen, 2005).

3.8.3 Member checking

Member checking for ensuring credibility of a qualitative research is the process whereby the researcher involves the study participants to confirm and validate the accuracy of the researcher's interview and other observations made towards their behaviours. It also involves requesting them to comment on whether the research findings and interpretations of the data extracted from them are true and meaningful to them (Bowen, 2005). In order to ensure credibility, participants were presented with research findings to comment on. This process helps investigators to "check their own subjectivity and ensure the trustworthiness of their findings."

3.8.4 Transferability

This is the generalization of the study findings to other situations and contexts. Transferability is not considered a viable naturalistic research objective. The outcome of this study can be adopted by other researchers or institutions. This result is not transferable because the method used is phenomenology which is demanding to know direct experience of individuals cannot be objective

3.8.5 Dependability

Dependability deals with the ability of a researcher to provide facts and evidence that would indicate that if the same study is conducted with similar or same respondents in the same or similar context his/her findings could be similar, same or even be repeated (Bowen, 2005).

3.8.6 Confirmability

This questions how the research findings are supported by the data collected in a qualitative study. It is an identification process. As such researchers are expected to indicate the relationship of each data collected and its relationship to the study and connection to the research problem (Bowen, 2005). It allows external researchers to pass judgment on a particular empirical study to know whether the researcher was bias or not.

3.8.7 Ethical Considerations

The study purpose, objectives and the whole research process will be explained to the participant before obtaining their consent to participate. All responses will be treated as confidential. Moreover, should a participant want to discontinue during the course of the research he/she will be free to do so. Confidentiality and anonymity will be ensured by providing privacy and not exposing the participant's name at any stage in research instead pseudonyms would be used.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter presents the data collected and the analysis of the narratives in relation to the questions raised to explain the experiences and access to information on maternal health services by "primigravida" in Fatima village.

4.2 Interview Analysis

The interview average run time per session was 50 minutes per participant. The interview was conducted with ten participants, amounting to 500 minutes in total which is approximately nine hours, in respect of participants' experiences on the issues discussed and narratives from audio tapes which were converted to transcribed text.

An iterative analysis method informed by Clark and Brauwn (2015) employed a series of steps for coding the highlighted narratives. This method allowed for systematic identification of participants' interpretations and constructs which were then layered with the researcher's understanding, interpretations and constructs. Following these steps, the researcher read through the narratives looking for differences and similarities in the one hundred open codes that were derived from the entire narratives. This is shown in the data table in Appendix "B." The researcher ensured that the narratives have been reviewed and there is a general understanding of the scope and contexts of key experiences under consideration. It was coded manually to increase familiarity of content by the researcher and to provide the researcher with a formal system to organize the data, uncovering and documenting links, within and between concepts, and experiences in between described in the data (Huberman and Miles, 1994).

4.3 Description of Interview Participants

As at the time this study was conducted, the narrations were tape-recorded as the participants (primigravida) spoke in their natural environments and speech contexts. The participants in Fatima village were within the ages of 14-17 and were pregnant for the first time except for three (3) of them who just had babies that were less than 42 days old. They all practiced Islam and all spoke Hausa. It was an in-depth one-on-one face-to-face interview, the findings of which will be discussed according to the emergent categories. The map of Fatima village is shown in Appendix "C" of this work and the distance (29 km) to the nearest hospital which is Gambo Sawaba General Hospital is also indicated on the map.

4.4 Description of the Emergent Categories.

This section of the study describes the categories and subcategories that emerged from the open codes and it is illustrated in the appendix B .The category and subcategory are discussed below which is in relation to question asked about the experiences of mothers being pregnant for the first time is as follows.

4.4.1 Experiences of Primigravida in Fatima Village on Access to Information on Maternal Health Services

This section of the study described the 4 categories and six 6 sub-categories that emerged from the 28 open codes (see Appendix "C"). The categories and sub-categories are discussed below in relation to the questions asked about the maternal health services the primigravida in Fatima village knew about. Four categories emerged as follows:

1. Antenatal care services.
2. Delivery care services.
3. Postnatal care services.
4. Ignorant

The sub-categories and quotation were arranged based on the questions asked in the process of data collection so as to describe, as accurately as possible, the experiences of the "primigravida."

Maternal Health Services Primigravida in Fatima Village Know About

Four Categories emerged in relation to the question on the awareness of available services in the Maternal Health Centers among primigravida in Fatima. The categories are 1.Antenatal care services.2.Delivery care services.3.Postnatal care services and 4.Ignorant Primary health centers' are built in every community to ease the problem of transportation to help provide maternal care to individuals, but the closest health facility to Fatima was Gambo Sawaba General Hospital which is about 29 km from the village using Google map. Apart from distance, for the maternal health services to be utilized by the primigravida, they had to know which services were provided and how beneficial they were to them.

Category 1: Antenatal Services Available (14/28, 50%): fifty percent of the narratives indicate that respondents knew about one aspect or the other about antenatal services but never went for the services available in the hospital. One participant went to the hospital because she was experiencing severe stomach pain and her husband works in the hospital. The other participants did not go for reasons ranging from long distance to not seeing any reason to go to the hospital as pregnancy is not sickness. There is this widespread perception that pregnancy and delivery are normal life events that require no special preventive measures or care so they do not regard going to hospital when they are pregnant to be an important thing to do.

Blood Testing: Ten point seven percent (10.7%) of the narratives showed that blood testing was known among primigravida in Fatima. When pregnant women go for

antenatal check-up their blood was usually tested to ensure they do not have any infection which could affect the mother or baby before or during delivery.

Maternal Check-up: Twenty-three point four percent (23.4%) of the respondents narratives showed that the women knew that when a woman go for antenatal services her wellbeing is checked; the state of the mother and the unborn. They, however, cannot explain how it is done because they do not go to the hospital. One of the respondents, for instance, said ''I know that when women go for antenatal visits the nurses check their blood and check whether their babies are fine or not but, I only went to the hospital once in my life to check my blood pressure (BP).''

Drug Prescription and Administration: Seventeen point seven percent (17.7%) of the narratives of the primigravida pointed to drug prescription and administration as the antenatal care service they know about but have no firsthand experience of it. The second respondent to the question –Respondent '2' said:

> **According to what I have heard they test blood and give drugs to be taken daily, they also offer delivery services where they help women to deliver then they give the baby injections in their later visit, but pregnancy is not sickness so there is no need to go to the hospital.**

Category 2: Delivery Services: Five out of twenty-eight of the narratives (representing 17.9%) of the respondents showed that primigravida knew that delivery services are provided in the hospital but they have the belief that there has to be a complication in delivery before a pregnant woman can go to the hospital. Therefore, they do not utilize this service except when they have complications. Most of these women have never been to the hospital at all in their lives. They do not see any reason why they should go to the hospital when there are no deliveries that cannot be handled by the local midwives so most of the time they deliver at home. One of them responded "I never went to the hospital even once so I do not even know what services they render apart from the help

they render to women who go there when they have complicated issues during delivery. Another respondent said "They help people that cannot deliver on their own and give drugs to mothers and babies. That is all that I know, but I have never been there."

Category 3: Postnatal Services: Five out of twenty-eight of the narratives (representing 17.9%) of the respondents acknowledged knowing some aspects of postnatal services that were offered to women which involves taking care of the new mother and the new born baby. They claimed "They help women that cannot deliver themselves and give drugs and injections to the mothers and babies that is all that I know. I have never been there.''

Category 4: Ignorance of Services: Four out of twenty-eight of the narratives (representing 14.3%) of the respondents interviewed by the researcher showed that they did not even have an idea of information on maternal health care services.

Discussion of Findings from Research Question 1

The services available and provided in the hospital include pre-natal care, antenatal care, delivery and postnatal care. From the responses of the primigravida, it is obvious that non of them (0%) heard about the prenatal services. About antennal care services, 50% of them heard about it, 17.9% heard about postnatal care services and 17.9% acknowledged knowing about delivery services even though they believed that it is only when there is a complication that a woman can go to the hospital to deliver her baby. It was only one participant that claimed to have been to the hospital for antenatal care.

The participants' narratives showed that only 28% of them were informed about maternal health services and primigravida actually did not know the main services that are rendered at maternal health care centres and the benefits of the services. This implies that despite high awareness of maternal health services, there is lack of in-depth knowledge of some services such as preconception care, antenatal care and postnatal care that are rendered. This may have influenced their non utilization because for these women to

utilize the maternal health services, they must be knowledgeable about their existence. The study also revealed that none of the respondents mentioned preconception care as part of services rendered. This is not surprising, since many women in Nigeria do not see the necessity of preconception care. According to WHO (2012), there is growing evidence that extending the maternal, newborn and child health to include prenatal care which is a woman's health before she becomes pregnant can increase the well-being of women and improve subsequent pregnancy and child health outcomes. Only 17.9% of the respondents mentioned postnatal care as part of the services that are rendered. Postnatal care is regarded as one of the most important maternal healthcare services which is crucial for monitoring and treating complications in the first six weeks after delivery. Postnatal services are primarily comprised of physical examination, immunization, health education and family planning services (Safe Motherhood, 2002; NPC, 2004; United Nations, 2002). According to Safe Motherhood (2002), the majority of women in developing countries receive almost no postpartum care after delivery; only about 5% of women receive postnatal care in the Sub-Saharan Africa.(Onasoga et al, 2013). In Fatima, 14.3% of the narratives showed that there were primigravida without any form of information on maternal health care services.

4.4.2 Sources of Information on Maternal Health Services Available to Primigravida in Fatima

Two categories emerged from the question on sources of information on maternal health services by primigravida in Fatima: Social Network and No Source.

Primigravida in Fatima’s sources of information on maternal health services are very homogenous because respondents said their source was informal which implies that formal sources were not regarded. When asked about information from the media such as posters and radio jingles they all affirmed they never had access to such sources. So all

the information they get is from direct sources which is face-face. The categories that emerged are as follows

Category 5: Social Network: This category emerged as a result of responses from the respondents when asked about the sources they consult for information on maternal health. Nine out of 10 of the women, representing 90% of the narratives from the participants showed that sources of information on maternal health care services of primigravida in Fatima were their social networks. A social network can be described as a conglomerate of people connected by a shared set of social expectations often representing inclusion through regular interaction, shared support and personal disclosure (Garton, Haythorathwaite and Wellman, 1997 in schuemann, 2014).

The social networks include the followings:

The spouse: Fifty percent (50%) of narratives of the participants in Fatima claimed that their husbands were their sources of information on maternal health care services.

Blood relatives: Another category of primigravida in Fatima which comprised 30% of the narratives asserted that their sources of information on maternal health services were their relatives; step daughters and mothers.

Friends: Friends also played a significant role in the lives of the participant because 10% of the narratives indicate that their sources of information on maternal health care services were their friends.

Category 6: No Source: One out of 10 (representing 10%) of the respondents' narratives showed that primigravida are not informed about maternal health services at all hence no source.

4.4.2.1 Discussion of Findings on Question Two

When participants were asked about their sources of information on maternal health, 90% of the narratives indicated husbands, relatives and friends were the sources of information

to primigravida. When the researcher demanded to know their reason for the preference and choice of the sources of information on maternal health, the participants said they prefer information on maternal health services from those who are either family or friends who had similar experiences or women of their age-grade who had experience as first time mothers this agrees with (Davis and Flannery,2001).

Another reason that made primigravida in Fatima to receive information on maternal health services from their friends, according to them, was because they trusted them and were confident that they will not be misled. Another category sourced for information from their spouses because of their position as the family heads. These respondents said they prefer information on maternal health services from their husbands because if anything happens to them their husbands would be held totally responsible.

The 10% of the respondents narratives indicates that there was no source to information on maternal health services they sought and did not divulged any information at all. This study found out, from all indications, that disseminating information on maternal health services to the male gender, elderly women, and traditional birth attendants would go a long way in increasing awareness to the primigravida on the availability of maternal health services which will increase the utilization of maternal health services and reduce maternal deaths.

4.4.3 Access and Use of Information on Maternal Health Services by Primigravida in Fatima

The primigravida in Fatima were interviewed on how they obtained reliable information they used since they became pregnant and this categories emerged.

Category 7: Eight out of 10 (representing 80%) of narratives indicated that primigravida obtained information on maternal health care services they used from their family and friends.

Category 8: Formal Sources: One out of 10 (representing 10%) of the narratives indicated from the study subjects showed preference for formal sources. This category accessed information from resource persons working in the hospital.

Category 9: No-Access: Like in the case of category 8, narratives from "No access" participants where 1 out of 10 participants said she does not access information on maternal health services at all. According to her, information on maternal health was too sensitive and is a confidential issue that does not call for discussion with anybody aside ones' spouse.

The Experience and challenges of Primigravida

Eight categories emerged from the twenty five open codes and the eleven sub-categories from the narratives. The categories that emerged are as follows:

(1) Periods

(2) Cravings

(3) Pains

(4) Altered sense of smell

(5) Morning sickness

(6) Body Changes

(7) Spitting

(8) Frequent urination

The analyses of primigravida responses indicated the challenges they encountered since realizing that they were pregnant. It was their first experience so expressing themselves was quite tasking because of their culture which makes first pregnancy an issue that could not to be discussed openly. The narratives are attached with pseudonyms for identification instead of their real names. Their challenges and experiences are presented in the categories that emerged from the sub-categories as follows:

Category 10: Periods: it is expected that every reproductive female experiences period unless she has reached menopause.The periodic discharge of blood and mucosal tissue from the uterus, occurring approximately monthly from puberty to menopause in non pregnant women and females of other primate species (Merriam Webster's dictionary).

Missed Periods: Nine out of 25, representing 36% of narratives showed that the participants experienced missed period which is response from 90% participant's response. Whenever the time came for a sexually active reproductive woman to menstruate and she did not menstruate, the first thing she suspected was pregnancy. In the hospital too, if a woman complained of not menstruating, pregnancy test was conducted to ascertain whether or not she was pregnant. The study found out that most of the women interviewed were within this category, they missed their periods when they were pregnant. Respondent RS9 claimed "I do not experience my monthly flow anymore''

Spotting: 10 % participant experienced spotting. That is, contrary to other pregnant women, a respondent continued to menstruate while she was pregnant. When she confided in her husband he made her to understand that it happens sometimes. The respondent -RS1's response "Even when I found out that I was pregnant I was still seeing my monthly blood flow. The only difference I observed was that the blood was not much. I experienced that for the first two months.''

Category 11: Cravings: Three out of 25 narratives of the participants representing 8% of the narratives claimed that they experienced craving. Craving, for clarity purpose, is a very strong desire for something and when that desire is not fulfilled a person feels completely dejected. People crave for different things. While some crave for sleep, some crave for food.

Food cravings: Four percent of the narratives claimed to have experienced food craving, This Category emerged from the experiences resulting from excess food intake.

Primigravida craved for food continuously, even when she ate she still felt hungry. It was another sign of pregnancy that has been observed by the participant (RS2). Her own words “I eat so much, even when I eat, within a short time I feel like eating again. Eating so much is my worry.”

Sleep disorder: Eight percent (8%) narratives for the women in this category experienced craving of another kind which is sleep, lots of sleep the signs encountered by the participants which prevents them from doing their basic chores and living their normal lives since the inception of the pregnancy.RS1’’ Getting up in the morning was a serious struggle, the sleep was never enough, I feel sleepy all the time ‘’leading to sleep disorder while, another respondent added RS3” I feel tired most times and sleep a lot.”

Category 12: Pain: Two naratives out of 25, representing 8% of the primigravida experienced body pain they never felt prior to their becoming pregnant. The pain varies as explained below:

Stomach pain: Four percent (4%) of the participants’ narratives complained of prolonged acute stomach pain. That the pain was so unbearable that she had to go to hospital and undergo scanning to know the actual cause of it. This was the first experience of visiting a hospital in the life of respondent. The respondent (RS4) asserted “I usually had very serious stomach pain.”

Severe headache: While 4% of the narratives from the respondents claimed to have experienced stomach pain, the remaining percent experienced unbearable headache which they had never experienced until they were pregnant. This can be seen in the excerpt from RS5, “I was having stomach pain continuously for a very long time and had to go to the hospital which was not a common practice Fatima.”

Category 13: Altered Sense of Smell: Again, 1 out of 25 of the primigravida, representing 4% claimed that they experienced altered sense of smell as a result of

pregnancy. Prior to being pregnant the respondents tolerated all kinds of smell easily from cooking, washing soaps, perfumes or deodorants but they could no longer do so during pregnancy.

Irritation from cooking aroma: A respondent (RS6) narrated her ordeal that whenever she was cooking some kinds of food, she had to hold her breathe intermittently so as not to perceive the aroma of the food to avoid vomiting. She said "I usually get irritated easily by the aroma of some foods that made me to vomit.

Smells: Another respondent claimed that whenever she was washing clothes, she used different kinds of soap because the fragrance of particular soaps irritated her resulting to vomiting. Her words, "And I found out that the smell of soap or some particular perfumes irritated me too much.''

Category 14: Morning Sickness: Four out of 25 narratives of the respondents, equivalent to 16% claimed that the common signs of early pregnancy usually affected them anytime of the day. even though it is called morning sickness. It could be nausea, vomiting, feeling sick or queasiness. It usually started from the 6th week of pregnancy or even before depending in other women. One of the respondents (RS7) narrated "When I was pregnant in the early months I vomited violently. I vomited whenever I ate or even drank water, I vomited. Whenever I wake up in the morning, I started my day with vomiting, whether I ate or not.''

Category 15: Body Changes: Two out of the twenty five narratives amounting to 8% informed the researcher that when they conceived their bodies tend to change within six weeks and the change occurred in different parts of the body while some experienced swollen breast, swollen nose, increased shoe length and swollen tummy. The respondents experienced changes also in their energy level.

Weakness during pregnancy: Weakness of the body during pregnancy is noticed by a respondent (RS3) who said she felt very weak and tired all the time which was not so prior to her pregnancy. “I felt tired and weak time all the time’’

Energized during pregnancy: While one of the respondents experienced body weakness when she was pregnant another experienced renewed energy during the period. The respondent (RS8) claimed “I felt very energetic since I became pregnant”.

Category 16: Spitting: One out of 25 of the narratives, representing 4% informed the researcher that she experienced spitting continuously and spitted when talking. That she was not talking, saliva would gather in her mouth, so she had to get something to chew just to avoid spitting. The researcher herself observed that the informant (RS9) had saliva in her mouth during the interview. Utterance from her excerpts “I usually poured out too much saliva, you can see my mouth is never dried. I always chew something to avoid spitting.’’

Category 16: Frequent Urination: Two of the 25 participants narratives (representing 8%) experienced frequent urination in the third trimester which is the last three months of pregnancy. They urinated constantly as if the bladder could not hold urine for a long time. One of the 2 respondents’ (RS7) narrative “At a later stage I wee continuously since my bladder was always full.’’

When the primigravida where asked how they overcame their maternal health challenges, most of them said they relied on unorthodox medication. One of the respondents said they had plants that are used as herbs for drinking or burnt and inhaled called *turare*. They rubbed it on their heads to cure the ache called *shafi* and sometimes the religious *kamu* helped them a lot.”

4.4.1.3 Discussion of Finding on Research Question 4

The study found out that the "primigravida" that were interviewed shared similar characteristics. All of them were very shy, young and from a common cultural background. They were below 17years and had little or no western education. Because of these, eliciting responses from them was not easy because as far as their culture was concerned any woman talking freely about her first pregnancy or delivery was not properly brought up or irresponsible. According to Doctor and Aradeon (2016), "A virtuous wife is secluded within the residential compound and possesses *kunya*, which translates roughly as modesty, shame, or deference. this trait is very common among primigravida in Fatima." The high value placed on *kunya* inhibited women from soliciting timely assistance in the event of maternal complication. This influenced a large number of women to deliver alone and reject maternal services to be provided by male health workers"(Doctor and Aradeon,2016)

The primigravida had different pregnancy challenges such as missing their monthly menstruation and altered sense of smell for the first time. The low level of literacy among them compounded the negative effects of their normative dependency on their husbands for health-care expenses and decisions (Aradeon and Doctor 2016).

4.4.4 Barriers to Access to Maternal Health Services Against Primigravida in Fatima

Two categories emerged from the responses obtained from the informants with respect to their reasons for non-utilization the maternal health services available at the PHC. To some of them, it was inconvenience, immobility and belief system.

When asked if there are any personal reason(s) why primigravida do not go for maternal health services at the clinics, they gave reasons thus:

Category 18: Inconvenience and immobility: Two out of the 11 informants that participated in the study, representing 3% complained of not having any means of transportation apart from motorcycle which is not convenient for a woman who is in labour to embark on. One of them complained "I delivered at home because I had a very big tummy it was not convenient for me to embark on motor bike especially as I was in labour. We do not have any car vehicle in the whole village. So I did not have any option."

Category 19: Belief: Eight out of 11, representing 72.7% of the narratives have different beliefs that prevented them from visiting the primary health centre. Some of them refused to go to the health centres for personal reasons as can be observed in the narrative excerpt of RSP 8, "I did not deliver in the hospital because my co-wife suggested to our husband to take me to the hospital but I refused because I believed that she hated me and would not want anything good for me. So as prolonged as the labor was I endured it at home and eventually the baby died. I believed that the baby was not destined to live so I cannot take such an advice from my co-wife."

C**ategory 20: No hindrance:** One out of 11 narratives of the participants in the study, representing 9.1% said she was shy! According to narratives, she cannot expose her nudity to strangers, so going to the hospital means exposing her body to strangers, what she cannot do. The idea of going to the hospital to deliver her baby was not welcomed, "How can I go to the hospital to expose my nakedness to the people that I do not know? I preferred to have my baby at home. I have been praying very hard and insha Allah, I will have my baby at home because going to the hospital means there are complications so I do not want any complications. Insha Allah I would be delivered of the baby safely at home."

RSP 6 asserted “At home is more likely because we have local midwives who assist in the delivery at home. Who am I to go there?” RSP 5 said “Everyone around here delivered at home when it was time so why should mine be different.”

Other researchers identified poverty, cost, illiteracy, lack of electricity. Poor roads, racism, sexism and other systematic barriers have contributed to maternal mortality. While other researchers identified fear of disclosing pregnancy, negative response to pregnancy disclosure, and feelings of shock and disbelief in response to pregnancy served as barriers to access to maternal health care services among pregnant adolescents: Negative perceptions of maternal health care services also served as a barrier to access to maternal health care services among pregnant adolescents.

Also another study found staff turnover, inadequate supervision, cultural practices and inadequate infrastructure**.** Barriers cited by another study were poor knowledge of service, economic barriers (indirect cost and transportation cost), geographical barrier, drug stock outs, poor referral system, no means of transportation during labour, religious and cultural beliefs, women’s low status in the society, poor quality of service, poor planning, monitoring and sustainability of programs. It means these barriers are very frequent when pregnant women want to access information from reviewed literature.

4.4.4.1 Discussion of Findings on Question 5

This study found out that there were good roads in Fatima but no motor vehicles to transporting women during labour to the hospitals. The researcher also observed that there were socio-cultural factors that hindered them from delivering their babies in the hospitals. Socio-cultural practices that relied on traditional birth attendants to assist women to be deliver their babies. It was also compulsory to seek their husbands' permission to seek maternal care according to their religion. Religion played a very significant role in the lives of those who practiced it.

Education was also another important factor that hindered mothers especially in the rural areas from seeking maternal health from primary health care centres. All the participant mothers were not educated up to secondary school level and had no orientation or knowledge about the western medicine. They, therefore, relied more on traditional birth attendants (TBAs) and their social network for information. They also believed that the hospital is for the elite like in the case of the respondent who asked "Who am I to go to the hospital?" They even believed that only complicated deliveries were to be taken to the hospitals.

4.5 Implication of Findings

The study discovered that "primigravida" (participants) in Fatima had never heard about prenatal care services. Prenatal care is an important factor that determines the outcome of a pregnancy. The content of this care encompasses screening for a variety of medical conditions such as physical examinations, laboratory tests and medical counseling services. There are serious implications if primagravida are not aware of the importance of physical examinations, laboratory tests and medical counseling services because there would be complications if the primagravid have diabetes, HIV or even high blood pressure that could metamorphose into critical situations while pregnant or during

delivery. Prenatal services involve steps taken to reduce birth defects, morbidity or mortality. That is why there is the need to design a special information program that lays emphasis on prenatal care services using information and communication technologies conceptualized, designed and implemented to create awareness on prenatal care in Fatima.

Another finding in the study is that the primigravida (participants) in Fatima are aware that a missed monthly period could be a sign of pregnancy. However, they do not believe in antenatal care. Antenatal care services include the management of pregnancy related conditions such as underweight baby or mother, anemia, infection and the monitoring of the health of mother and fetus. It is recommended that expectant mothers should go for four antenatal care visits, during which a health worker can check for signs of ill health. The importance is to predict and prevent unforeseen pregnancy related problems, even though some complications can suddenly occur, some complications might show warning signs.

Despite the importance of antenatal care to primigravida, in the study setting, the primigravida do not seek antenatal health services because they do not know the benefit of it. The implication of not going for the visits is that they were left out of counseling on hygiene to improve their health prior to, during and after delivery. This was as a result of poor pregnancy related decisions such as taking medications that could be harmful to mother and child, neglecting iron and blood regiment given to pregnant women during every visit. Others include missing out on birth plans developed for them and how to reach out for care, and what to do in case of emergency or avoiding nutritious meals that could benefit mother and child. All this happened because they do not know its value even though they have what it takes to make the meals in their homes. There are also harmful practices that can complicate delivery. In order to improve the use of antenatal

care service and avoid complications during pregnancy and child birth, a well packaged antenatal health care service information program that is suitable to the context and situation of primigravida in the rural areas has to be evolved.

The study also found out that the participants do not go to the primary health centre to deliver their babies rather they solely depend on traditional birth attendants (TBAs). Participants believed that delivery services at the primary health centre were for the elites while other participants believed it was only when there was a complication that one would go for the services. This TBAs are generally not formally trained neither are they licensed. The implication of TBAs handling the responsibilities of delivery services could lead to premature delivery, sepsis, hypertensive disorders, excessive bleeding or death because they do not have the skill to assess the progress of labour neither do they have the tools needed to monitor the fetal heartbeat leading to martenal morbidity and mortality. This mortality and morbidity would have been averted if the TBAs and the primagravida were aware of the benefits of delivery health care services. All their assumptions were due to lack of proper enlightenment on the benefits of delivery health services. It is, therefore, only programs involving awareness on delivery care information dissemination that would change their orientation. For this reason, it is pertinent to enlighten the participants through well designed information packages on maternal health services.

Postnatal care is the service that is dedicated to caring for the mother and baby that has just been delivered from the time of the birth of a child to six weeks (42 days) after delivery. It is a critical phase in the lives of the newborn and mothers because major changes such as bleeding and infections which pose a major threat to the mother occur during that period. During postnatal care, mothers are sensitized about the benefits of

hygiene and nutritious food that would make them to heal internally. They also get counseling service on maternal information.

The study revealed that prima gravid (participants) knew about child vaccination which is just one aspect of postnatal care. They do not know about the implication of neglecting postnatal health care services during this period as it can result to significant ill health and even the death of mother or child. In order to avoid mortality, proper dissemination of information on postnatal health care services through posters and other communication technologies would help to educate the prima gravid.

Finally, the study revealed that there was a communications gap among "primigravida" (participants) in Fatima on maternal health services. The participants' sources of information were their husbands, mothers or friends (their social network).This sources play a very significant role in the lives of the participants by helping them make choices concerning their health and pregnancy. The information they gave directed the decisions taken by the prima gravid whether they were helpful or not because they were not even aware of the maternal health services from trained and skilled staff. It was just from hear say or their personal experiences which were in most cases deadly!

This implies that there is the need to generate programs on awareness of maternal health information that is necessary for planning and implementation in manners that take individual local peculiarities into consideration. The generated information on maternal health services should be designed in a way that the social network would be aware of maternal health services especially the men since in this rural area most respondents said their spouses were their source of information.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary, contribution to knowledge, conclusion and recommendations for the study which is "Access to Information on Maternal Health Services by Primigravida in Fatima in Zaria Local Government Area of Kaduna State.

5.2 Summary of the Study

Chapter one of this work discussed the introduction, background of the study, problem statement, research questions, objectives, significance and scope of the research which aimed at knowing the experiences of primigravida and their access to information on maternal health services. To know how much they know about the services available and the sources that they prefer to get information on maternal health services from.

Chapter two of the work reviewed literature which helped the researcher to identify the gap in literature using variables concerned such as primigravida, maternal health, information and services.

Chapter three discussed the methodology used in the study. The researcher used the qualitative research methodology with the interpretative (hermeneutics) phenomenology research to achieve the aim of the study. The population of the study was all reproductive women who were pregnant for the first time or just had babies of less than 40 days old in Fatima in Zaria Local Government Area of Kaduna State. The researcher used the snowball sampling technique to find the respondents and used the open ended questions while interviewing the "primigravida" to collect data. The researcher personally went to their natural setting to conduct the interview.

Chapter four presented, discussed and analyzed data that were obtained from the interview with the primigravida. The narratives collected using a tape recorder were transcribed and coded manually, categorized and presented in chapter four.

Chapter five systematically presented the findings of the research based on the questions asked, contribution to knowledge and recommendations.

5.3 Summary of the Major Findings

1. None of the participants in Fatima heard about prenatal services. They do not seek antenatal health care service. They also do not know that delivery health care services were offered to everybody.
2. The source of information of the primigravida in Fatima was their social network.
3. Primigravida in Fatima accessed information on maternal health from their husbands, mothers and friends who have experienced pregnancy before them.
4. The study participants experienced missed period, spotting, increased energy levels, cravings, vomiting, altered sense of smell, morning sickness, spitting or frequent urination during pregnancy.
5. Study participants refused to go to the hospital to deliver babies because of their beliefs, rivalry and socio-cultural practices.

5.4 Contributions to Knowledge

1. The participant believed that safe delivery and death were natural occurrences that come from God. Therefore, they do not need to utilize the maternal health services to avoid morbidity and mortality.
2. The study revealed that the participants refused to go to the hospital because of personal belief, sentiments, grudges and rivalry.

5.5 Conclusion

Findings of the research revealed that primigravida were ignorant about information on maternal health services; the benefits and what it entails. Therefore, they do not utilize the primary health centres. The sources of information on maternal health services of primigravida in Fatima were their social network: mothers, spouses and friends. Primigravida access information on maternal health services through their social network. The study identified the experiences of "primigravida" in Fatima and the challenges they encounter while pregnant, and how they access information on maternal health services to overcome them, only to discover that maternal health services mean nothing to them. They had a very low understanding of maternal health services. They were used to unorthodox medication and traditional birth attendants helping them during delivery.

The study also discovered grudges, sentiments and belief were the barriers to the primigravida in obtaining maternal health services. The researcher discovered that a primigravida could endanger her life and the child's due to rivalry than accept going to the hospital because the person that suggested the maternal health center was her co-wife.

The research is a step to understand direct experiences of primigravida and how they make sense of information on maternal health services to create awareness to stakeholders and researchers. It is imperative to introduce health information programs suitable in context and situation of the rural people using information and communication tools. This will encourage the use of the maternal health centers available to them and reduce maternal mortality rates in the country considering individual peculiarities and using best practices of information dissemination.

5.6 Recommendations

Below are the recommendations made by the researcher:

Posters and other information and communication tools (ICT) should be used to create awareness by health workers as a medium of transmitting information on the dangerous signs of pregnancy, prenatal, antenatal, postnatal and delivery services.

1. An awareness program on the benefits of maternal health services should be designed in a way that community gatekeepers and all men should be involved based on traditional concepts taking their context into consideration since they are the sources of information for the primigravida.
2. Understanding how primigravida access information on maternal health services helps state actors (ministry of health, government, health workers) and non state actors (non-governmental organizations) to device a means of creating relevant information that primigravida can use.
3. Interventions are needed from both state and non-state actors to assist in health information awareness programs that are designed on maternal health services available and the way it can be used to overcome the challenges they go through as primigravida to enlighten the rural people.
4. Information programs on maternal health information will expose different methods of accessing information on maternal health services so that petty sentiments would not prevent primigravida from utilizing the maternal health services.

References

Ahmad, B., Bakar, A., Yasr, A. & Alhadri, L. A. (2009). Seeking access to health information: The dilemma of woman community in rural Malaysia. A paper presented at World Library and Information Congress: 75th IFLA General Conference and Council. Millan: Italy.

Afolabi, M. (2011). *Introduction to research methods for writing.* Ibadan: Heinemann.

Akaligaung, A. J. (2015). Improving the quality of maternal and child health service delivery in resource-poor settings: case study of project five alive! in Ghana. A Ph.D Dissertation Submitted in Boston University School of Public Health.

Ampong-Ansah, F. (2015) Access and trends of utilization of maternal healthcare services among rural women in Asikuma Odoben Brakwa District in the Central Region of Ghana: Mphil Thesis Submitted to the University of Ghana, Legon.

Anasi, S. N. (2012). Access to and dissemination of health information in Africa: The patient and the public. *Journal of Hospital Librarianship, 12* (2), 120-134.

Azza, M. H., Nahla, F. A., El-ezz, Yousra B. A., Aisha, M.A. & Alfotouh. (2015). Utilization of maternal health care services among women in EL-Sheikh Zaid City. Department of Community, Environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University. Family care center in El-Sheikh Zaid City; Giza; Ministry Of Health.

Adamu, H.S. (2011). *Utilization of maternal health care services in Nigeria: An analysis of regional differences in the patterns and determinants of maternal health care use*. Published M.A. Dissertation. Department of Public Health, University of Liverpool. Retrieved from www.support.liverpool onlineonline.com/~/ media/.../MPH_Quantitative _Dissertation_1.pdf on October 2, 2017

Adeboboye, T. (2015). Uduaghan the Doctor who nursed Delta back to health". *Daily Sun,* April 22, 2015.pg 33.

Adisse, M. (2003). Maternal and Health Care lecture note EPHTI and USAID training initiative University Gordon.

Ajjawi, R. & Higgs, J. (2007). Using Hermeneutic Phenomenology to investigate how experienced practitioners learn to communicate clinical reasoning. *Qualitative Report*, 12(4). December 2007 612-638 retrieved from http://www.nova.edu/ssss/QR/QR12-4/ajjawi.pdf

American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) (2002). Guidelines for prenatal care. 5th ed. retrieved http://www.health.ny.gov/publications/2026/

Anonymous, (n.d) Maternal health in Nigeria: challenges in Africa. Retrieved on 23/3/2015.11.36am from http://www.maternal-health.org/nigeria/maternal-health-in- Nigeria/index.html

Audunson, R. (1999). Can Institutional Theory Contribute to our Understanding of Research in information Needs, Seeking and Use in Different Contexts? London: Taylor Graham.

Babalola, S.O. (2014). Factors associated with the use of maternal health services in Haiti: A multilevel analysis. *PAN African Journal of Public Health*. Rev Panam Salud Publica.

Beith, A., Wright, J. & Ergo, A. (2017). *The link between provider payment and quality of maternal health services: Case Studies on Provider Payment Mechanisms in Kyrgyz Republic, Nigeria and Zambia.* Bethesda, MD: Health Finance and Governance Project, Abt Associates Inc.

Bertrand, I. & Certain, E. (2009). Access to reliable information for health workers in developing countries: Information for all, starting at Grass Roots level in Africa. *Health Library Rev*, 17(4), 222-224.

Biemel, W. (2015). Phenomenology retrieved 30 November 2015 from http://www.britannica.com/topic/phenomenology

Boyd, C.O. (2001). Phenomenology the method. In P.L. Munhall (Ed.), Nursing Research: A Qualitative Perspective (3rd. ed., pp. 93-122). Sudbury, MA: Jones and Bartlett.

Case, D.O. (2007). *Looking for information: a survey of research on information seeking, needs, and behavior, 2nd Ed.* Elsevier-UK.

Clark, V. & Brauwn, V. (2015). *Thematic Analysis*. University of Aukland, New Zealand. retrieved from http://www.psych.auckland.ac.nz/en/about/our- on 1 December,2015research/research-groups/thematic-analysis/about-thematic-analysis.html

Clement, S., Sikorski, J. Wilson, J., Das, S. & Smeeton, N. (1996). Women's satisfaction with traditional and reduced antenatal visit schedules. Midwifery12:120-128. Downloadedfrom: http://researchonline.lshtm.ac.uk/1012993/

Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education* (6th ed). Routledge retrieved from www.eBookstore.tandf.co.uk." July 2, 2015.

Cooke, J.G. & Tahir, F. (2013). *Maternal health in Nigeria: A report of CSIS global health policy centre*. Retrieved from http://www.csis.org on January 31, 2014.

Corraggio, F. (2011). *Information needs of women in developing countries*. Retrieved from http://www.slideshare.net/fcorraggio/information-needs-of-women-indeveloping-countries.

Creswell, J. W. (2013). *Qualitative inquiry & research design*: *Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE.

Davies, M. M. & Bath, P. A. (2002). Interpersonal sources of health and maternity information for somali women living in the uk: information seeking and evaluation. *Journal of Documentation, 58* (3), 302 - 318.

Davis, R. E. & Flannery, D. D. (2001). Designing health information delivery systems for puerto rican women. *Health Education and Behavior, 28*(6), 680-695.

Dervin, B. (1998). Sense-making theory and practice: an overview of user interests in knowledge and use. *Journal of Knowledge Management*, 2(2), 36-46.

Doctor H.B, & Aradeon, S.B. (2016). Reducing rural maternal mortality and the equity gap in northern Nigeria: the public health evidence for the community communication emergency referral strategy. *International Journal of Women's Health*.

Ebeniro, J. (2012). The geography of maternal mortality in Nigeria. A Master of Science Thesis Submitted in the University of North Texas.

Ebere, Z.O. (2013). A review of the barriers and socio-cultural factors influencing the access to maternal health care services in Nigeria. M.Sc. Thesis submitted at the Helsinki Metropolia University of Applied Sciences.

Eijk, A.M.V., Bles, H.M., Odhiambo, F., Ayisi, J.G., Blokland, I.E., Rosen, D.H., Adazu, K. Slutsker, L. & Lindblade, K.A. (2006). Use of antenatal services and delivery care among women in rural Western Kenya: A community based survey." *Reprod Health* 3:2.

Ejembi, C.L., Alti-Muazu, M., Chirdan, O., Ezeh, H.O. & Sheidu, S. (2004). Utilization of maternal health services by rural Hausa women in Zaria Environs, northern Nigeria: Has Primary Health Care made a difference? *J Comm Med Prim Health Care*, 2(3), 251-259.

Erasmus, M. O. (2017). The barriers to access for maternal health care amongst pregnant adolescents in the Mitchells plain sub-district. A mini-thesis submitted in at the School of Public Health, University of the Western Cape.

Filippi, V., Ronsmans, C., Campbell, O. *et al.* (2006). Maternal health in poor countries: The broader context and a call for action. *Lancet* 368 (9546), 1535–1541.

Gaston, N.M. (2014). *Contextualizing information behaviour: The example of Laos.* A Ph.D. Thesis Submitted at the University of Wellington.

Gill, K., Pande, R. & Malhotra, A. (2007). Women deliver: women deliver for development', background paper for the women deliver conference, 18-20 October [Online] Available from: http://www.icrw.org/files/publications. Accessed: 2nd October 2017

Godbold, N. (2006). Beyond Information Seeking: Towards A General Model of Information Behaviour" *Information Research*, 11(4), Paper 269 [Available At Http://Informationr. Net/Ir/11-4/Paper269.Html]

Graham, W.J. (2002). Now or never: the case for measuring maternal mortality. *Lancet* 701–704.

Grason, H. Weisman, C. & Silver, G. (2002). State strategies for improving data on women's health in Baltimore, M.D: Women's and children's health policy centre, Johns Hopkins University.

Grimes, H.A., Forster, D.A. and Newton, M. S. (2014). Sources of information used by women during pregnancy to meet their information needs. *Midwifery*, *30*, 26–33.

Gulliford, M., Figueroa-Munoz, J., Morgan, M., Hughes, D., Gibson, B., Beech, R. & Hudson, M. (2002). What does access to health care mean? *Journal of Health Services Research & Policy*, *7*(3), 186-188.

Hancock, B., Windridge, K. & Ockleford, E. (2007). An Introduction to Qualitative Research.

Hanson, C. (2013). The epidemiology of maternal mortality in Southern Tanzania. Ph.D Thesis, London School of Hygiene & Tropical Medicine. DOI: https://doi.org/10.17037/PUBS.01012993

Healthy People (2010). US Department of Health and Human Services. Washington, DC: US Government Printing Office; 2000 Retrieved on 23 November 2015 from http://www.healthypeople.gov/Document/pdf

Heath, C., Svensson, M.S., Hindmarsh, J., Luff, P. & Lehn, D. vom. (2002) Configuring awareness. Computer Supported Cooperative Work (CSCW), 11(3–4), 317–347.

Herrick, R. and Morgan, A. (2010) *Providing Information Services to Migrants*. Retrieved 23/3/2015 at www.immigration.govt.nz/research.

Hibbard, J.H., Greenlick, M., Jimison, H., Kunkel, L. & Tusler, M. (1999) Prevalence and Predictors of the Use of Self-care Resources. Eval Health Prof 22: 107-122.

Hogan, M., Goreman, K. & Naghavi, M. (2010). 'Maternal mortality for 181 countries, *1980-2008:* A systematic information used by women during pregnancy to meet their information needs. http://whqlibdoc.who.int/publications/2010/97892 41500265_eng.pdf.

Idris, S.H., Sambo, M.N. & Ibrahim, M.S. (2013). *Barriers to utilization of maternal health services in A semi-urban community in Northern Nigeria: The clients' perspective. Niger med J* Retrieved from http://www.nigeriamedj. com/text.asp? On March 19 2013.

Jackson, S.L. (2009). *Research methods and statistics: A critical thinking approach* 3rd Edition. Belmont, CA: Wadsworth.

John, W, & Schmitt, M.D. (2012) retrieved on 10 November 2015 from http://www.womenshealth.gov/publications/our-publications/fact-sheet/prenata- care. html. University of Virginia Medical School.

Johnson, K., Samuel, F.P., Janis, B. & José, F.C. (2006) Recommendations to Improve Preconception Health and Health Care - United States: A Report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. Washington DC, Centers for Disease Control and Prevention. Retrieved on 17 November 2015 retrieved http://www.uniteforsight.org/women-children-course/preconception-prenatal-women.

Kenya National Bureau of Statistics (2009). Kenya, Ministry of Planning and National Development 2008-2009. Kenya Demographic Health. *Midwifery, 30*, 26–33.mortality: 1990 to 2008.

Khanal, V., Adhikari, M., Karkee, R. & Gavidia, T. (2014). *Factors associated with the utilisation of postnatal care services among the mothers of Nepal: analysis of Nepal Demographic and Health Survey*. Retrieved on 18 November 2015 from http://www.ncbi.nlm.nih.gov/pubmed/24484933.

Leo, R. & Okafor, J.L. (2015). Health, much ado about Sure-P, maternal and child health. *Daily trust* Tuesday March 10, 2015.

Lewallen, L. P. (2004). Healthy behaviours and sources of health information among low-income pregnant women. *Public Health Nursing, 21*(3), 200–206.

Mahajan, H. & Sharma, B. (2014). Utilization of maternal and child health care services by "primigravida" females in urban and rural areas of India. ISRN Preventive Medicine. 2014;2014:10. doi: 10.1155 /2014/123918.123918retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4062859/ on October 2, 2017

Merriam Webster Dictionary

Medlineplus (2015). U.S National library of medicine journal retrieved on 18 November 2015 from https://www.nlm.nih.gov/medlineplus/preconceptioncare.html

Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis* (2nd edition). Thousand Oaks, CA: Sage Publications.

Mungai, S. & Oleche, M.O. (2016). The determinants of maternal health care services in Kenya. *International Journal of Novel Research in Healthcare and Nursing*, 3(2), 162-172.

Musa, A.I. (2013). *Emporia, Kansas; A dissertation presented to Emporia State University. NICHD* About Pregnancy retrieved 1 November 2017 from https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/Pages/default.aspx

Mvula, N. (2010). Investigating health and nutrition messages given to pregnant women at Bwaila Hospital in Lilongwe. Akershus University College, Faculties of Health, Nutrition and Management.

Naanyu, V., Baliddawa, J., Peca, E., Karfakis, J., Nyagoha, N. & Koech, B. (2013). An examination of postpartum family planning in Western Kenya: "I want to use contraception but I have not been told how to do so". *African Journal of Reproductive Health, 17*(3), 44-53.

National Partnership for Women & Families (2018). Black women's maternal health: analysis of progress towards Millennium Development Goal *5. The Lancet*, 2010 375: p. 1609-1623.

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

Nordqvist, C. (2017). *What to expect during pregnancy*. Retrieved 1/11/2017 from https://www.medicalnewstoday.com/articles/38302.php

Nwagu, W. E. & Ajama, M. (2011). Women's health information needs and information sources: A study of a rural oil palm business community in South-Western Nigeria. *Annals of Library and Information Studies*, 58:270-281

Nwangakala, H. A. (2016). Pregnant women's access to maternal health information and its' impact on healthcare utilization behaviour in rural Tanzania. A Doctoral Thesis Submitted at the Loughborough University, United Kingdom.

Ogunmodede, T.A., Ebijuwa, A.S. & Oyetola, S.O. (2013). Health information needs and information sources of pregnant women in Ogbomoso Metropolis, Oyo State, Nigeria" *Library Philosophy and Practice* (e-journal)

Olaofe, Y. A. (2010). *Research writing for academic growth*. Zaria: A.B.U. Press Ltd.

Onasoga, A.O., Osaji, T.A., Alade, O.A. & Egbuniwe, M.C. (2013). Awareness and barriers to utilization of maternal health care services among reproductive women in Amassoma community, Bayelsa State. *International Journal of Nursing and Midwifery*, 6(1), 3(2), 126-132.

Pakenham-Walsh, N. & Bukachi, F. (2009) *Information needs of health care workers in developing countries: a literature review with a focus on Africa* Retrieved on18 November 2015 from http://creativecommons.org/licenses/by/2.0.

Postnatal care in Nigeria: A multilevel analysis retrieved on 19 November from http://paa2012.princeton.edu/papers/122513

Rowland, A & John, F. (2013). The A-Z of social research: Sampling, snowball: accessing hidden and hard-to-reach populations. Retrieved from http://dx.doi.org/10.4135/ 9780857020024.n94 17 April 2016

Roxanne, P. (2004). Emphasizing "communication" in health communication. *Journal of Communication, 54*(4), 751-787.

Safe Motherhood (2002). Safe Motherhood: A matter of human rights and social justice. www.safemotherood.org.htm

Schmidt, K. (2002). The problem with "awareness": introductory remarks on "awareness in CSCW." Computer Supported Cooperative Work (CSCW), 11(3), 285–298.

Schuemann, K.B. (2014). A phenomenological study into how students experience and Understand the University Presidency. A Ph.D. Thesis Submitted at the Western Michigan University.

Shipman, J.P., Kurtz-Rossi, S. & Funk, C.J. (2009). The health information literacy research project. *J Med Libr Assoc*, 97(4), 293–301

Silali, M. & Owino, D. (2016). Factors influencing accessibility of maternal and child health information on reproductive health practices among rural women in Kenya. Fam Med Sci Res 5: 198. doi:10.4172/2327-4972.1000198

Silali, M., Maurice, B. & Eunice, N. (2013). Assess functionality of imci spatial infrastructure and policy utilization in Trans-nzoia County Kenya, open access 23050422.

Sloan, A. & Bowe, B. (2014) Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*, 48.

Souza, J.P., Gulmezoglu, A.M., Vogel, J., Carroli, G., Lumbiganon, P. and Qureshi, Z. (2013). Moving beyond essential interventions for reduction of maternal mortality (the WHO Multi-country Survey on Maternal and Newborn Health): A Cross-sectional Study. Lancet, 1747–1755.

Suleman, H. I. & Muhammed, S. I. (2013). Barriers to utilisation of maternal health services in a semi-urban community in Northern Nigeria: The Clients' Perspective. Niger Med J. 2013 Jan-Feb; 54(1): 27–32. doi: 10.4103/0300-1652.108890 PMCID: PMC3644741 PMID: 23661896

The policy project (n.d) AM_MH 2orview pdf. Accessed on 12th November 2018. *The World Bank estimates*. 2012: Geneva.

Thompson, K.M. & Afzal, W. (2011). A look at information access through physical, intellectual, and socio-cultural lenses. *The Journal of Multicultural Society*, 3(5),119-126.

Tilak, M. K. (2013). Empowerment as a strategy in improving maternal and child health in Ethiopia, the Case of the Ethiopian government initiative: A qualitative approach. M,Sc thesis submitted at the Malmö University, Department of Health and Society, Division of Public Health.

Tsehay, A. B. (2014). Seeking health information in rural context: Exploring sources of maternal health information in rural Ethiopia. A Thesis Submitted at the University of Bergen.

Ugboaja, J.O., Berthrand, N.O., Igwegbe, A.O. & Obi-Nwosu, A.L. (2013) Barriers to postnatal care and exclusive breastfeeding among urban women in southeastern Nigeria. *Niger Med J* retrieved on 19 September 2015 from http://www.ncbi.nlm.nih.gov/pubmed/?term=OBI-Nwosu%20AL[auth

Unehi,V. (2015). Health. *Day. Daily Trust*, Tuesday 7/4/ 2015.pg 6

UNICEF (2009). Maternal and new born health: State of the World's Children.

UNIFPA (2012) retrieved 16 November 2015 from https://www.unfpa.org/maternal-health

USAID/Population Council, (2006), Acceptability and Sustainability of the WHO Focused Antenatal Care package in Kenya, Washington DC: USAID. http://www.popcouncil.org/pdfs/frontiers/FR_FinalReports/Kenya_ANC.p

Uloma, D. O. & Adedotun, A. A. (2013). Information seeking behaviour of pregnant women in selected hospitals in Ibadan Metropolis. *Journal of Information and Knowledge Management*, 4(1), 120-129.

Umar, A. S. (2016). *Use of maternal health services and pregnancy outcomes in Nigeria*. Ph.D. Dissertation Submitted at the Walden University.

Wolfson, E. (2006). Global alliance for women's health. A paper presented at successes and challenges of public/private partnerships in scaling-up treatment for HIV/AIDS in Sub-Saharan Africa.

World Health Organization (WHO). United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), and the World Bank (2010) Trends in Maternal Mortality: 1990 to 2008 - Estimates Developed by WHO, UNICEF, UNFPA, and the World Bank. Accessed at http://www.unfpa.org/public/ home/publications/pid/10728

World Health Organization (2002). Essential antenatal, prenatal and postpartum care training modules, WHO Regional Office for Europe. Accessed on 12th November, 2018

World Health Organization (2013). Maternal death surveillance and 218 response: Technical guidance. Information for action to prevent maternal death. WHO, Geneva, Switzerland. Accessed from http://www.who.int/maternalchildadolescent /documents/maternal_deathsurveillance/en/

Whitley, S. (Ed.). (1994). American Library Association Guide to Information Access. New York: Random House.

WHO, UNICEF, UNFPA and the World Bank. Trends in Maternal Mortality: 1990 to 2010.Retrieved from http://www.unfpa.org/webdav/site/global/shared/documents/publications/2012/Trends_in_maternal_mortality_A4-1.pdffebuary 19 2015

WHO, UNICEF, UNFPA, World Bank and the United Nations Population Division Trends in Maternal Mortality: 1990 to 2013. Geneva, World Health Organization, 2014.

WHO (2014). Maternal mortality fact sheet. Retrieved from WWW.WHO.INT on 6 November 2017

Womenshealth.gov. (2009, March 6). Publications: Prenatal care fact sheet. Retrieved April 12 from http://www.womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.html

World fact book (2010). retrieved from https://www.cia.gov/library/publications/the-world-factbook/rankorder/2223rank.html on18 October 2017

World Health Organization (2015). 10 facts on maternal health retrieved from http://www.who.int/features/factfiles/maternal_health/en/ on October 2, 2017.

World Health Organization (2017). Maternal mortality retrieved from http://www.who.int/gho/maternal_health/mortality/maternal_mortality_text/en/. October 2, 2017

World Health Organization (WHO). "Maternal Mortality in 1995 Estimates" Geneva, 2001

World Health Organization (WHO) (2010). "Countdown to 2015 decade report (2000-2010): Taking stock of maternal, newborn and child survival".

WHO (1998). Postpartum care of the mother and newborn: a practical guide. WHO/RHT/MSM/983 Geneva: WHO

WHO (2013). Preconception care: maximizing the gains for maternal and child health retrieved on 18 November 2013 from www.who.int/maternal_child_adolescent/en

WHO (2017). Health Topics Retrieved on 1/11/2017 from http://www.who.int/topics/pregnancy/en/

Women's health Gov (2017). Stages of pregnancy office on women's health in the U.S. Department of Health and Human Services retrieved on 1/11/2017 fromhttps://www.womenshealth.gov/pregnancy/youre-pregnant-now-what/stages-pregnancy.

Appendix A

Interview guide

1. What do the primagravida in Fatima know about among the following maternal health services provided in the community?

a. Preconception services

b. Delivery services

c. Post-natal services

2. What source/sources of information on maternal health do the primigravida have access to?

a. Can you tell me your source of information on prenatal services?

b. Now tell me your source of information on delivery services?

c. Then tell me your source of information on antenatal services?

d. Finally your source of information on postnatal services?

e. In your experience which source do you consult most often for reliable information?

f. On maternal health?

g. Why do you prefer that source?

3. What are the challenges that primgravida encounter in accessing information on maternal Health?

a. How do you access information to overcome the challenges?

b. What information do you trust and use?

4. What are the Experiences being a primigravida?

5. Is there any personal reason(s) or barrier(s) that prevent you from accessing Maternal health information service now that you are pregnant?

APPENDIX B

ANALYSIS DATA TABLE

Table 1: Data AnalysisQuestion	Response/ Narration	Open Code	Related Code	Sub-Category	Category
Question 1: Please share with me what type of maternal health services you know about in the primary health centre and if you have been there before.	RS1 I know that when women go for antenatal visits the nurses check their blood and check whether the baby is fine but, I only went to the hospital once in my life to check my blood pressure(bp). • Sincerely I don't know. (1) So can you describe how they checked your blood pressure? (B) How do they check the wellbeing of the baby? I don't know how, that's just what I have heard	• The nurses check your blood. • check whether the baby is fine. • I only went to the hospital once in my life to check my blood pressure (BP). • When I went they just used one instrument to tie my hand and read something and gave me drugs. They used • to test blood. • they give drugs you take daily. • delivery	• -check your blood.RS1. ▪ Test blood.RS2 ▪ Take blood from finger to test.RS7 ▪ -check the wellbeing of the baby.RS1 ▪ Listen to sound from the stomach.RS7 ▪ Check my BP.RS1 ▪ Check Bp .RS7 Check pregnant women.RS4 ▪ Check weight and height.RS7 ▪ Antenatal checks RS4 ▪ -drug prescription to pregnant women RS2. ▪ Give pregnant women drugs RS4 ▪ Give them(women) drugsRS6 ▪ Give drugs and injections to mothers.RS8 ▪ Give women drugs and injections in the hand.RS9	Blood testing. Maternal checkup Drug prescription and administration for pregnant women.	Antenatal Care

	some people saying. <u>When I went they just used one instrument to tie my hand and read something and gave me drugs.</u> R2 according to what I have <u>heard they used to test blood and give drugs you take daily then delivery services where they help women to deliver then they give the baby injections in their later visit</u> but pregnancy isn't a sickness so no need going to the hospital R3 I <u>never went to the hospital even</u>	services where they help women to deliver • they give the baby injections in their later visit • So I don't even know what services they give. except they help complicated issues during delivery. • went because of the pains in my stomach • l went for antenatal checks. • I know they check the pregnant women and give them drugs. • They deliver	▪ Delivery services.RS2. ▪ help complicated issues during deliveryRS3 ▪ -deliver ▪ womenRS6 ▪ Help those that can't deliver themselves.RS8 ▪ Give babies injectionRS2 ▪ Give children polio.RS4 ▪ Give children injection.RS4 ▪ -vaccination of infants.RS6 ▪ Give drugs to babies.RS7 ▪ i never went to the hospital.RS3 ▪ -I don't know. never tried to know.RS5 ▪ I have never been to the hospital.RS8 ▪ I never bothered to know.RS10	-.Delivery services Postnatal care No idea.	Delivery services Postnatal services Ignorant about services

	once. So I don't even know what services they give except they help people who go there when they have complicated issues during delivery. R4 I went because of the pains in my stomach not because of the pregnancy,and for antenatal checks I know they check the pregnant women and give them drugs sometimes they deliver women, give the children polio and injections once in a while. R5 truthfully I don't know and I never	women; give the children polio and injections once in a while. • I don't know and I never tried to find out. • Know they deliver women and give them drugs. • Deliver mothers and give the children injections when they are born. drugs. • They deliver women; give the children polio and injections once in a while. • I don't			

	tried to find out. R6 I know they deliver women and give them drugs, deliver babies and give the children injections when they are born. never been there. R7 Since I went and was given an appointment to come back I decided not to go back and I was given traditional medicine and then I started feeling better because the vomit reduced gradually and I became stronger. I know they take blood from your finger to test, then they	know and I never tried to find out. • Know they deliver women and give them drugs. • Deliver mothers and give the children injections when they are born. • I went and was told to come back. • they take blood from your finger to test, • then they check your blood pressure. • they put something on top of your stomach to listen to the stomach, • check your weight and			

	check your blood pressure if you go for antenatal they put something on top of your stomach to listen to the stomach, check your weight and height and even your urine they check but I don't know what they are looking for then they give you drugs. R8 They used to help people that can't deliver themselves and give drugs and injections to the mothers and babies that's all I know but I have never being there. R9 I don't really know but they give	height. 51) even your urine they check • They used to help people that can't deliver themselves. • and give drugs and injections to the mothers and babies. • I have never being there. • Don't really know but they give women • drugs and injections in the hands. • Know they have services to offer but never been interested to know what it is.			

	women drugs and injections in the hands. never been there. R 10 I know they have services to offer but never been interested to know what it is.				
Question 2: Can you tell me your sources of information on maternal health services?	R1 My step daughters. R2 My husband. R3 Nobody R4 My husband who works at the hospital. R5 My aunt. R6 My mother. R7 My husband. R8 My husband. R9My friends. R10 My husband.	• My step daughters. • My husband. • Nobody I don't know about the services delivered there. • My husband who works at the hospital. • My aunt. • My mother. • My husband. • My husband • My friends • My husband.	▪ -Spouse.RS2 ▪ -Spouse.RS4 -Souse RS7 ▪ -Spouse.RS8 ▪ -Spouse RS10 ▪ Relations.RS1 ▪ -Blood relationsRS5 ▪ -Blood relations.RS6 ▪ -Friends.RS9 ▪ -NIL.RS3	Spouse Blood relations Friends	Social network No source

Question 3: How do you get information on maternal health service you use?	R1 I had a safe delivery so there was no need to even ask further than my step daughters. R2 health personnel at Rimindoko (primary health centre) in Zaria .Because they know much about maternal health. R3 I don't consult anybody can't discuss that with anybody R4 My husband because he is a learned personnel. R5 My aunt because we are almost same age but she has a baby already	• I had a safe -delivery so there was no need to even ask further than my step daughters. • Health personnel at Rimindoko (primary health centre) in Zaria. Because they know much about maternal health. • I don't consult anybody. • don't consult anybody can't discuss that with anybody • My husband because he is learned personnel. My aunt because we • are almost same age but she has a baby already and she's my friend. • My mother	▪ -Health personnel ▪ experience on maternal health.RS2 ▪ -my husband. A learned personnel.RS4 ▪ -step daughters. -more experienced.RS1 ▪ -my aunt: An experienced mom and friend.RS5 ▪ -my mum. Shes experienced RS6 experienced mothers.RS1 ▪ -my friends with children. ▪ I-trust them.RS9 ▪ -my friends. ExperiencedRS7 ▪ -My husband. ▪ -I'm his responsibilityRS 8 ▪ -MY husbandRS1 ▪ -nobody too difficult to divulge.RS3	formal sources, Learned persons Informal sources I trust and They are experienced mothers. Informal sources responsibility NOBODY	Formal sources Social network No access

	and she's my friend. R6 My mother because of her experience R7 My friends or husband since we all live together and trust each other R8 My husband because he is responsible for me. R9 My friends because they are experienced they have children already. R10 I can consult my husband but if there is a need I will just consult those with experience like mothers (those with babies.)	her experience. • My friends or husband since we all live together and trust each other. • My husband because he is responsible for me. • My friends because they are experienced they have children already. • I can consult my husband but if there is a need I will just consult those with experience like mothers (those with babies.			

Question 4:.what is your experience being pregnant for the first time?	R1 when I found out I was pregnant i still saw little blood in the first two months then getting up in the morning was a serious struggle, especially because the sleep was never enough so I feel sleepy all the time. When I feel sleepy I just sleep Whenever I wake up I do my chores. R2 I missed my monthly flow completely but what I am experiencing now is that I eat so much, even when I eat, within a short time I	• I still saw blood in the early months. • Getting up in the morning was a serious struggle. • The sleep was never enough. • I feel sleepy all the time. • I missed my monthly flow completely • I eat so much. • when I eat, within a short time I feel hungry again. • Eating so much is my worry. • I feel tired at times. • Sleep a lot. • my period has gone too. • don't see my monthly flow anymore. • Having stomach pain continuously for a very long time. • The period disappeared	▪ I still saw blood in the early months.RS1 ▪ I missed my monthly flow completelyRS2 ▪ My period has gone too.RS3 ▪ don't see my monthly flow anymore.RS4 ▪ The period disappeared.RS5 ▪ I stopped seeing my monthly flow.RS6 my monthly flow stopped.RS7 ▪ first my period disappeared.RS8 ▪ I stopped seeing my monthly flow RS9 ▪ my period stopped.RS10 ▪ -Struggles to wake up in the morning due to pregnancyRS1 ▪ -wanting more sleep.R1. ▪ - I sleep a lot RS3 ▪ -so much food consumption.RS2. ▪ -excess food intake.RS2 ▪ -always hungry.RS2	Spotting. missed periods Insufficient sleep Continuous eating	Period. cravings

	feel hungry again. even when I eat, within a short time I feel hungry again. Eating so much is my worry, I don't feel sick at all. R3 I don't really feel any different or change at all except I feel tired at times, sleep a lot and my period has gone too. R4 I don't see my monthly flow anymore and another experience I was having is stomach pain continuously for a very long time. I went to the hospital (rimindoko) from there I was referred to Gambo Sawaba	• i usually had headaches very serious headaches. • I stopped seeing my monthly flow. • Usually get irritated easily from aroma of some food, which makes me throw up. • Found out that the smell of soap or some particular foods irritates me too. • my monthly flow stopped. • in the early months I would vomit violently. • When I ate it will be vomited and sometimes even when I sip water I still vomit • I start my day with vomiting whether I eat or not. • at the later stage I wee continuously as if my bladder was always full.	▪ -Having prolonged stomach ache RS4 ▪ -Having unbearable headachesRS5 ▪ -Often irritated from aroma of food.RS6 ▪ -irritated from smell of soap .RS6 ▪ -Vomits due to pregnancyRS7 ▪ -vomits in the early stage of pregnancyRS7 ▪ -vomits as a result of food intake.RS10 ▪ -Nausea .RS10 ▪ -Easily vomits as a Result of irritation/smellsRS6 ▪ -energetic when pregnantRS8 ▪ sometimes weak due to pregnancyRS3 -keeps mouth busy by chewing to avoid spittingRS9 ▪ -always pouring out too much saliva. RS9. I ▪ wee continuously as if my bladder was always full.RS7	Stomach pain headaches smells/Irritation from aroma Nausea Energetic/ weak spitting Urinate continuously.	Pains Altered sense of smell Morning sickness Body Changes Spitting Frequent Urination

	general hospital for a scan where they detected a growth in my stomach and gave me drugs for it. R5<u>The period disappeared</u>. When I was pregnant I <u>usually had headaches very serious headaches</u> to cure the headaches we have plants that are used as herbs for drinking or burnt and inhale the smoke called "turare" we also have herbs that we rub on the head to cure the ache called "shafi" and sometimes the religious "kamu" also helps a lot.	• first my period disappeared • felt much energized when I was pregnant. • I stopped seeing my monthly flow • usually pour out too much saliva. • I always chew to avoid spitting • my period stopped, • I Feel nausea. • I vomit a lot			

	R6 I stopped seeing my monthly flow, I usually get irritated easily from aroma of some food, which makes me throw up. And I found out that the smell of soap or some particular foods irritates me too. R7 my monthly flow stopped then when I was pregnant for the early months I would vomit violently. When I ate it will be vomited and sometimes even when I sip water I still vomit. When I wake up in the morning I start my day with vomiting				

	whether I eat or not. Then when I eat it also comes out. I did'nt do anything about it until it's about four months then I was given herbs (tazargaje) to drink. But at a later stage I wee continuously as if my bladder was always full. R8 at first my period disappeared, then I noticed I really felt energized when I was pregnant then I urinate a lot when the pregnancy was older. I had the baby peacefully until we lost him. R9 I stopped seeing my				

	monthly flow. I usually pour out too much saliva as you can see my mouth is never dry. I always chew. I went to the hospital but they did not have any thing that could stop the saliva so I just take lime and lick continuously that's how we prevent the saliva locally. R10 my period stopped,I feel nausea, and vomit a lot. I went to the hospital and got drugs.				

QUESTION 5: share with me any reasons that can hinder you from utilizing the services available at the PHC when having your baby	R1I delivered at home I had a very big tummy and so couldn't even comfortable sit on the motor bike and especially with labour. We don't have any vehicle in the whole village. So I didn't even have any option. R2 I have been praying very hard and INSHA ALLAH I will have my baby at home because going to the hospital means there are complications so I don't want any complications. insha Allah I would be delivered	• I delivered at home I had a very big tummy and so couldn't even comfortable sit on the motor bike and especially with labour. • We don't have any vehicle in the whole village so I didn't even have any option. • 80)I have been praying very hard and insha ALLAH. • 81) I will have my baby at home because going to the hospital	▪ -very large tummy. -lack of vehicle. Sitting on a bike not convenient. in labor painsRS1 ▪ at home by Allah's will to avoid going on a bike.RS9 ▪ it has to be the hospital .RS4 ▪ Going to the hospital means complication.RS 2 ▪ -delivery is easier at home.RS3 ▪ -everyone delivers at home.RS5 ▪ -we have local midwives. ▪ -I will deliver at home.RS6 ▪ -when God brings an easy delivery it's at home.RS7 ▪ -praying fervently ▪ -will have the baby at home.RS2 ▪ suggested by co-wife not acceptable. ▪ -delivered at home. ▪ -lost the baby.RS8 ▪ -to avoid strangers looking	Lack access to a comfortable transportation to hospital Hospital Prefers to Deliver at home because believes it's easier and everyone does so. Believes only God can Bring relief through prayers not the PHC. Sentiments	Inconvenient Mobility No hindrance Beliefs

	safely at home. R3 At home of course because delivery is easier at home. R4 it's the hospital definitely. because already I have issues R5 Everyone around here delivers at home when it's time to deliver so why should I go to the hospital. R6 when the time Comes, but at home is more likely because we have local midwives who assist in the delivery. R7 when God brings an easy delivery why should you go to the	means there are complicatio ns. • insha Allah I would be delivered safely at home. • At home of course because delivery is easier at home. • It's the hospital definitely. • Everyone around here delivers at home . • At home is more likely because we have local midwives who assist in the delivery. • when God brings an easy	at her nudity.RS10.		

	hospital? R8 I didn't deliver in the hospital because my comate suggested it and I believe she can't want anything good for me,actually the labor was prolonged that's why she suggested the hospital but I refused even though eventually the baby died immediately after birth". R9 if Allah brings safe delivery I will prefer home. The trouble of going to the hospital on a bike is the reason I won't want to go to the hospital. R10 how can I go to the hospital to	delivery why should you go to the hospital? • I didn't deliver in the hospital because my co wife suggested it. • If Allah brings safe delivery I will prefer home. • The trouble of going to the hospital on a bike is the reason I won't want to go to the hospital. • How can I go to the hospital to expose my nudity to people I don't know? I prefer to have my baby at			

	expose my nudity to people I don't know? I prefer to have my baby at home.	home.			

Appendix C

Themes, Categories and Subcategories by Frequency and Percentage frequency.

Research question 1	Theme 1	categories	subcategories	frequency	Percentage%
What services available at the hospital do the primigravida know about?	Services	Antenatal services	Blood testing	3	10.7
			Maternal checkup	6	21.4
			Drug prescription and administration	5	17.9
		Group total		14	50%
		Delivery services	Complicated deliveries	5	17.9
		Group total		5	17.9%
		Postnatal services	Vaccinate babies	5	17.9
		Group total		5	17.9%
		No idea		4	14.3
		Group total		4	14.3%
		Groups total		**28**	**100.1%**

Table 2: Themes, Categories and Subcategories by Frequency and Percentage frequency.

Research question 2	Theme 2	categories	Sub categories	frequency	percentage
which sources of information on maternal health are available to primigravida in Fatima village	source or sources of information on maternal health services	Social network	spouse	5	50%
			relatives	3	30%
			friends	1	10%
			No one	1	10%
		Groups total		**10**	**100%**
Research question 3	**Theme 3**	**categories**	**Sub categories**	**frequency**	**percentage**

How do you get information on maternal health you use	Access to information	Informal sources	Family and friends	8	80%
		Formal source	Learned Personnel	1	10%
		No access	No access	1	10%
		Group total		**10**	**100%**

Table 4: Themes, Categories and Subcategories by Frequency and Percentage frequency.

Research question 4	**Theme 4**	**categories**	**Subcategories**	**frequency**	**Percentage %**
What are experiences of mothers pregnant for the first time?	Symptoms	Periods	Missed periods	9	36
			Spotting	1	4
		Group total		10	40%
		cravings	food	1	4
			sleep	2	8
		Group total		3	12 %
		Pains	Stomach pains	1	4
			Headaches	1	4
		Group total		2	8 %
		Altered sense of smell	irritation	1	4
		Group total		1	4%
		Morning sickness	vomits	4	16
		Group total		4	16 %
		Body changes	Energized	1	4
			weak	1	4
		Group total		2	8%
		Spitting		1	4
		Group total		1	4%
		Frequent urination	Urinating continuously	2	8

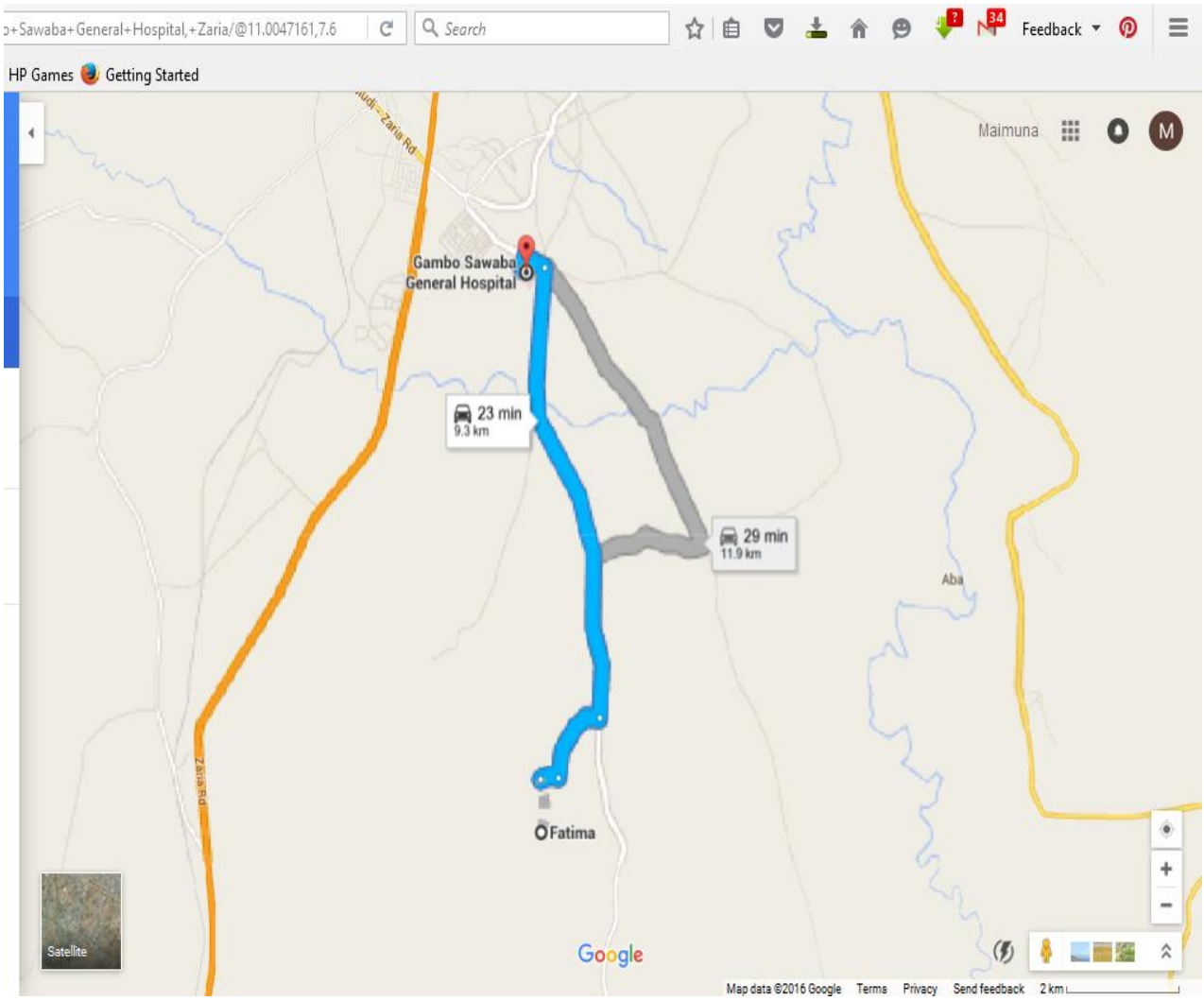
		Group total		2	8 %
		Groups total		25	100%
	1b) How do you overcome your pregnancy challenge concerning maternal health?	medication	Orthodox medication	1	10
			Unorthodox medication	8	80
		indifferent	Adamant	1	10
		Group total		**10**	**100%**

Table 5: Themes, Categories and Subcategories by Frequency and Percentage frequency.

Research question 5	**Theme 5**	**Categories**	**Subcategories**	**frequency**	**Percentage %**
Reasons that hinder primigravida from utilizing maternal health services available	Barriers	Inconvenient mobility	Absence of vehicles in the village	2	18.2
		Belief/sentiments	Hospital is only for complicated deliveries	8	72.7
		No hindrance	Hospital only option	1	9.1
	Group total			**11**	**100 %**

Appendix D

Map Showing the Distance to the General Hospital in Fatima



This is a map showing the distance from Fatima to the general hospital. It is the nearest hospital to the village and there is no primary health centre within a distance of less than 10 km.

Source: Google maps

.