

**DETERMINANTS OF MIDWIVES SERVICE SCHEME UTILISATION AMONG
WOMEN FARMERS IN SOUTHWESTERN NIGERIA**

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ABSTRACT

Maternal mortality accounts for most deaths in agrarian communities of Nigeria due to poor access to midwives services and inadequate Skilled Birth Attendants (SBAs). The Midwives Service Scheme (MSS) was established to engage more SBAs and advocate better utilisation of pre and post-natal care services. Studies have focused on utilisation of MSS, however, information on underlying factors that predispose MSS target beneficiaries to its utilisation is scarce. Therefore, determinants of MSS utilisation among women farmers in southwestern Nigeria were investigated.

A four-stage sampling procedure was used. Three states from southwestern states (Oyo, Ogun and Ekiti) were randomly selected. Thereafter, ten Local Government Areas (LGAs) from eighteen LGAs that adopted MSS programme in the selected states were sampled. Also, 30.0% of the MSS facilities in the sampled LGAs were selected, resulting in 13 MSS facilities. Proportionate sampling technique was used to select 20.0% of registered women farmers in the selected 13 MSS facilities to give 207 respondents. Interview schedule was used to collect data on respondents' socioeconomic characteristics, Maternal Health Information Sources (MHIS), Maternal Health Information Seeking Behaviour (MHISB), attitude and accessibility to MSS services, affordability and effectiveness of MSS, utilisation of and constraints to MSS. Indices of MHISB (low, 20.0-37.8; high, 37.9-48.0), attitude (low, 55.0-64.1; high, 64.2-99.0), accessibility (low, 13.0-22.2; high, 22.3-34.0), affordability (low, 12.0-23.0; high, 23.1-34.0), effectiveness (low, 10.0-17.5; high, 17.6-40.0) and utilisation (low, 30.0-46.3; moderate, 46.4-64.7; high, 64.8-72.0) of MSS were generated. Data were analysed using descriptive statistics, Chi-square, Pearson Product Moment Correlation and Linear Regression at $\alpha_{0.05}$.

Respondents' age, family size and monthly income were 34.97 ± 8.20 years, 6.70 ± 1.50 persons and $\text{N}22,014.43 \pm 13.08$, respectively. More than half (55.6%) of the respondents had formal education and engaged in trading (58.0%) as their secondary occupation. Most (96.1%) of the respondents sourced maternal health information from community health extension workers. The maternal health information seeking behaviour,

accessibility to MSS and affordability of MSS were low for 53.2%, 53.6% and 54.1% of the respondents, respectively. Though, respondents' attitude toward MSS was favourable for 58.4%, effectiveness of MSS was rated low by 55.6% of the respondents and MSS was moderately utilised by 64.7% of the respondents. The MSS utilisation was 49.24 ± 11.39 (Oyo), 45.08 ± 9.28 (Ogun) and 44.00 ± 10.71 (Ekiti). Respondents were mostly constrained by strike action of SBAs (1.89 ± 0.25) and unavailability of essential drugs and vaccines at the MSS facilities (1.83 ± 0.21). Respondents' education ($\chi^2=12.85$), family size ($r=0.02$), monthly income ($r=0.48$), attitude to MSS ($r=0.38$) and constraints to MSS utilisation related positively and significantly ($r=0.27$) to MSS utilisation. The MSS utilisation was determined by MHISB ($\beta=0.17$), MHIS ($\beta=0.19$), its affordability ($\beta=0.24$), respondents' educational level ($\beta=0.32$), monthly income ($\beta=0.50$) and accessibility to MSS ($\beta=0.60$).

Midwives Services Scheme utilisation in southwestern Nigeria was determined by maternal health information seeking behaviour, maternal health information sources, affordability, respondents' educational level, monthly income and accessibility to the scheme.

Keywords: Women farmers, Skilled birth attendants, Child bearing, Maternal mortality

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I dedicate this work to Almighty GOD, whose grace, wisdom, divine provisions and peace made it possible for me to start and finish this degree programme. I also dedicate the work to my parents, wife and children, siblings, teachers and school mates from foundational school to the universities I attended.

CERTIFICATION

I certify that this work was carried out, under my supervision, by Oluwasusi John Oluwatoyin in the Department of Agricultural Extension and Rural Development, University of Ibadan, Ibadan, Nigeria

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LIST OF ACRONYMS

CHEW	Community Health Extension Agents
FMOH	Federal Ministry of Health
FAO	Food and Agricultural Organisation
MDG	Millennium Development Goal
MSS	Midwives Service Scheme
NPC	National Population Commission
NDHS	Nigeria Demographic Health Survey
NPHCDA	National Primary Health Care Development Agency
UN	United Nations
PHC	Primary Health Care
PCV	Packed Cell Volume
SBA	Skilled Birth Attendant
SDG	Sustainable Development Goal
TBA	Traditional Birth Attendant
UNICEF	United Nations Children Education Fund
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational Scientific and Cultural Organisation
USAID	United States Agency for International Development
VDC	Village Development Committee
WHO	World Health Organisation

CHAPTER ONE

1.0

INTRODUCTION

1.1 Background to the study

The society is sustained on continuous governments' investment in her population's health, skills, knowledge and better practices protected by laws and policies. Family institution as the basic social institution in the society is formed on marriage, celebrated with pregnancy and childbirth for the preservation of human relationships in all societies. Maternity is celebrated as a cultural norm for sustaining family dynasty in diverse societies of the world. Moreover, maternal health of the women remains crucial to the outcomes of pregnancy and childbirth in the society. Pregnant women's tendency for safe child delivery depends on the competency and assistance of skilled birth attendants sought during childbirth. However, there is a rural-urban variation in the records of safe child delivery and maternal mortality in the country due to large concentration of obstetrics and gynaecologists with the best expertise in safe child delivery at the secondary and tertiary health facilities built in the urban areas, while the rural areas are equipped with few trained midwives co-existing with traditional birth attendants (Addai, 2000).

Women are beset with risks of maternal death in fulfilling the inherent social expectation of reproductive life, adjudged customarily by bearing children. Moreover, it was reported in 2015, that an estimate of over 300,000 women died during pregnancy and childbirth, with virtually all the maternal deaths recorded in poor health facilities and majority would have been averted (Conde-Agudelo, Belizan and Lammers, 2004). In addition, high maternal death during pregnancy and childbirth is generally a serious

health concern in less advanced nations, including Nigeria (Onasoga, Osaji, Alade and Egbuniwe, 2013).

Yearly, thousands of Nigerian women die from pregnancy and childbirth cases, often marked with circumstances of poor medical attention (Pitterson, 2010). Nigeria remains one of the highest populated countries in the world, with high number of women dying during childbearing and delivery (Women Deliver News, 2012). Maternal death, child mortality, health problems and diseases are high in Nigeria. Studies accounted that most of these unpleasant cases could be forestalled and curtailed if childbearing female folks registered in, and utilised modern health facilities equipped with skilled birth attendants during their pregnancy period, child delivery state and post child delivery (Dayaratna, Winfrey, Hardee, Smith, Mumford McGreevey *et al.*, 2000; World Health Organisation, 2004; Federal Ministry of Health, 2005). Women seem to die more during pregnancy and childbirth in the rural areas than the urban areas (World Health Organisation, 2014).

Rural women are possibly subjected to primitive conditions that seem to promote the patronage of traditional birth attendance to child deliveries at homes and spiritual places in a bid to preserve families' cultural heritage and ethos that are unconsciously done as harmful childbirth practice. The primary health centres established in the rural areas are constrained by the quality of health and maternal health services and poor infrastructural amenities that could hinder women's access to its utilisation. These may aggravate rural women's vulnerability to maternal mortality. The health of rural mothers is not only crucial to the health and survival of the children, but sustains their tremendous contributions to rural economies and national development.

1.2 Contributions of women to farming and their social protection

Rural women operate mainly in the informal sector of the national economy, contributing greatly to the economy and growth of the nation. They are largely concentrated in the agricultural sector, multi-tasking in both agricultural operations and domestic responsibilities of land preparation, crop production, transport, processing, storage, distribution, marketing, livestock management, collection of water and fuel for domestic use. Hence, improving their families' living conditions and economic base, at

the same time, providing food for the nation's domestic market. Women dominate the rural population, where majority of Nigerians live and farm (Nnadi, Chikaire, Atoma, Egwuonwu and Echetama, 2012). Furthermore, Aina (2004) posited that women in rural areas are typical farmers and artisans, who also delve into diverse entrepreneurial occupations.

Women venture into farm and non-farm activities, as financial opportunities against becoming liability to relations at the same time, improving family income in many rural homes. This is further corroborated by Brown, Feldstein, Haddad and Quisumbing (2001) who indicated that women are highly involved in farm activities globally. Women have vast indigenous knowledge in food processing and storage, plants and environmental protection, coping strategies against farm hazards and risks which are essential for food safety and security in the society (Julie and Vivek, 2014). Moreover, according to Uzokwe and Ofuoku (2006), females participate greatly in farming, despite restrictions in ownership and resources control. Women largely farm, process and ensure the sales of farm produce in almost all African nations (Todaro, 2000 and Food and Agriculture Organisation, 2010).

These women farmers serve multi-purpose roles in the society. They ensure food availability, selection and preparation in their respective homes, as farmers, wives and home nutritionists. They are key role players in child care, child socialisation and family welfare, involving lot of stress, societal pressure and selfless life styles that prone pregnant women farmers to maternal risks. According to World Bank (2003), women play key roles in agriculture, households and domestic affairs in the villages, through their contributions toward farming and family support. They also play key roles in family health through contributions to dietary intake, family income and provision of first aid care to sick family member in various communities of the world. Women do provide their families with sanitary environment, which reduces vulnerability of family members to diverse health problems (Levin, Daniel, Margaret, Marie, Saul and Clement, 1999).

However, in many traditional societies of the world, women are undervalued and relegated to mere help mates, which often influence their disposition towards matters that concern them most, such as childbirth, job participation and communal engagement (Soetan, 2001). Rural women seem to largely suffer social protection right in an environment that promotes gender bias in societal decision making processes, under the guise of customary norms of social relationships. Men seem to play a dominant role in the Nigerian family system, especially in the rural societies as the main decision-makers, promoting unequal social structure as socio-cultural practice, centred around traditional gender role expectations. Tracer study with men in the Village Development Committee reveals that rural men conform to social and cultural structures restricting them from helping their wives in domestic activities, during pregnancy and after childbirth, increasing women farmers risk to stressed conditions and maternal death in such environment.

Pregnant rural women are predisposed to body pains, headaches, farm accidents, fatigue, stress, increased blood pressure and difficulty to sleep, general poor feeding lifestyle, with negative effects on fetus development, less child birth weight, abortion and other maternal risks. Women in the remote areas are susceptible to rigorous farm work, having a possibility of horrible outcomes on those pregnant (Thomas and Taiwo, 2014). According to the report by (Africa Progress Panel on Maternal Health, 2010), bearing of children frequently result in calamity and unpleasant cases for Africa women, particularly for those in the remote villages. According to Marchie and Anyawu (2009), the most reported reasons for maternal deaths in the less developed nations are complications during childbirth, bleeding during child birth and extended travail in efforts of childbirth, high blood pressure, pregnancy termination subjected to quack midwives among others. Obstructed labour, bleeding during and after childbirth are the foremost reasons for maternal mortality in developing countries (Khan, Wojdyla, Say, Gulmezoglu and Van Look, 2006). Goal 3 of the Millennium Development Goals (MDGs), centred on safety of mother and child during childbirth, with an improved record in Nigeria, yet women remain susceptible to maternal death in many developing nations (Millennium Development Goal Report, 2013).

Upon the expiration of MDGs, 17 Sustainable Development Goals (SDGs) were initiated on 25th September, 2015 by United Nations member countries, with focus on good health, wellbeing and reduced inequalities in the society so as to avail improved maternal health of women in the world. According to United Nations Children Education Fund (UNICEF) report of 2014, women and child death pattern presented that Nigeria had not been improving rapidly to meet up with the world developmental objectives. Successive governments have adopted various programmes on safe motherhood, with many being initiated by non-governmental organisations attracting funding from international donors that are less sustainable, as withdrawal of sponsorship is inevitable after sometime; resulting in some level of reduction in maternal death (Hill, Thomas, Abouzhr, Walker, Say, Inuoue, and Suzuki, 2007); (Nigeria Demographics Profile, 2011). This reduction in maternal death, according to Okonofua, Lambo, Okeibunor and Agholor (2011) still remains one of the worst records of women's death to child bearing. The need to promote sustainable safe maternal health and expanded access to skilled birth attendants in Nigeria, particularly the rural communities, notable for inadequate basic amenities and underserved skilled birth attendance to child bearing women, led to governments' establishment of Midwives Service Scheme (MSS) by the 2009 Appropriation Act under the coordination and supervision of the National Primary Health Care Development Agency (NPHCDA).

Nigeria government launched Midwives Service Scheme in 2009, as a responsive policy to the concern of non-sustainability in the reduction of maternal death drive in the country. The MSS was established under the Federal Ministry of Health to promote equitable maternal health services and increase women's access to skilled birth attendants in both urban and rural areas of the country. It is a strategy for achieving reduction in maternal mortality all over the nation. The MSS was established to put an end to the preventive and needless maternal deaths in the country. It offers to reduce geographic barriers to safe maternal healthcare, health inequalities and promote equity of safe maternal health outcomes in both urban and rural areas. The MSS is set up to alleviate rural poverty with potentials to safeguard rural farming families from the scourges of maternal death, malnutrition, diseases and high infant mortality beyond the

expectation of human decency in its promotional and protective safe maternal health programme. It has the potential of enhancing long term contributions of women farmers to agricultural practices, sustenance of their role in ensuring adequate diet provision to farming families and rural economy.

It offers protection to vulnerable women farmers in the rural areas against maternal mortality that could depopulate the active women farm force, increase food insecurity in rural homes, and even urban homes in the nation. The implementation of MSS involves setting up of Village Development Committee (VDC) to ensure local partnership among stakeholders in the communities where MSS is sited for mobilisation of women to utilise effectively. This involves gaining the support of men to allow their wives utilise MSS for their maternal health during pregnancy, for child delivery and post child delivery. Close to 820 health facilities are drawn into the MSS with more engagement of primary health care (PHC) facilities than other tertiary hospitals (Abimbola, Okoli, Olubajo, Abdullahi and Pate, 2012). The MSS programme is structured by the seal of memorandum of understanding among the three-tiers of government in Nigeria, shouldering the responsibilities for primary health care in Nigeria, under the watch of the National Primary Health Care Development Agency (NPHCDA).

In all the PHC facilities, a Village Development Committee (VDC) and Ward Development Committee (WDC) are made up of influential people and elected representatives of the people in the community. They are established to enhance community participation and ownership of the MSS by the people in the MSS resident communities. The facilities selected for the MSS are linked in an effective two-way referral system through a cluster model in which four PHC facilities with the capacity to provide basic essential obstetric care are clustered around a general hospital with the capacity to provide comprehensive emergency obstetric care. Emergency cases beyond the general hospitals are referred to the teaching hospitals. The study intends to address maternal mortality accounting for most deaths in agrarian communities of Nigeria, due to poor access to midwives services and inadequate skilled birth attendants.

1.3. Statement of the research problem

Women constitute a great proportion of the labour force in food production and food security in Nigeria and Africa. Ogunlela and Aisha (2009) reported that women engage in agricultural operations more than men, particularly in sub-Saharan Africa; where they show greater drive and commitment to farm operations across the agricultural value chain. Women farmers seem to undertake high responsibility in food provision and meeting-up with the economic needs of most rural homes. Sustainable food production is crucial to food security and women farmers are highly involved in agricultural productivity and food distribution in the nation. Women are also involved in procreation, which is a cultural and natural responsibility in the family institution.

However, they are generally susceptible to maternal risks with grave threat to food production, as well as households and national food security. According to United Nations Development Programme (2005), women farmers are frequently vulnerable to sicknesses and death caused by rigorous farm work and childbirth. Perhaps, poor infrastructure and gender rights in the rural areas predispose women farmers to maternal death.

Despite the establishment of midwives service scheme by the collaboration of federal, state and local governments in Nigeria in 2009, as a possible effort to salvage maternal mortality in the country with many primary health centres sited and utilised in the rural areas as midwives service scheme facilities, little progress seems to be achieved. Mojekwu and Ibekwe (2012) stated that women death pattern to childbirth is still high in Nigeria, having one of the highest accounts of global women deaths, without a definite period of relief. According to Abimbola *et al.* (2012), the childbearing women in Nigeria are in millions, with a record of more maternal death in the villages compared to the towns and cities. Considering the fact that accessibility of targeted beneficiaries to social intervention programme could affect its use, the case of midwives service scheme utilisation in the rural areas, suggests possible hindrances to utilise effectively. Onasoga, Osaji, Alade and Egbuniwe (2013) reported that rural roads are in

a deplorable state, with poor transportation facilities, hindering women's access to modern health facilities.

Gender inequality and patriarchal dominance in family and social matters seem prevalent in the rural areas, with risks to child bearing women's free will and choice to effectively engage midwives service scheme for their maternal health, regardless of the advocacies for utilisation of the pre and post-natal care embedded in the programme for safe maternal health outcome. Previous studies by Omotosho (2010); Etuk, Olatunji and Ekong (2013), reported that where orthodox health services are provided in majority of the villages, there are hindrances to utilise them, which are connected to customary held opinions, educational level, precept, perception towards orthodox medicine, poor road network and financial capability, among others which tend to support customary health medicine and facilities.

Moreover, despite the establishment of the programme to provide more skilled birth attendants to attend to the maternal health needs of Nigerian women and drastically prevent and reduce maternal death, the ratio of the skilled birth attendants to the majority of the nation's child bearing women resident in the rural areas, according to Adogu (2014), poses a serious challenge for utilisation. Long waiting hours of productive time that may be lost by the women farmers in getting the attention of the skilled birth attendants to their maternal health needs amidst other challenges of utilisation could put them at risk of possible ill-dispositions to the programme.

Women farmers seem to drive their farming operations on family labour, hinging on multiple child birth in a bid to avail themselves cheap and accessible farm labour, which puts them at risk to maternal death, tends to multiply their hardship in the advent of safe delivery of children and vulnerability to poverty. The cost of maternal health care utilisation under midwives service scheme may not be relatively cheap to obtain by many of the peasant women farmers, faced with myriads of farm risks and possible poor coping strategies. Also, other women farmers' noticeable challenges in accessing MSS against the benefits the programme offers at their awareness stage could either limit their utilisation or make them reject its utilisation. The individual effect or cumulative

effects of these factors with respect to utilisation of MSS is under reported in the literature.

Moreover, Onoka, Onuwjekwe, Hanson and Uzochukwu (2011) reported that the situation of mother and child care is a crucial mirror to the health system provided for citizens and the growth of a country. It is against this backdrop that the study determined the utilisation of MSS among women farmers in southwestern Nigeria. This study therefore generated answers to the following research questions:

1. What are the maternal health information sources available to the women farmers on MSS?
2. What is the maternal health information seeking behaviour of the women farmers to maternal health services under MSS?
3. What is the attitude of the women-farmers to midwives service scheme?
4. What is the level of accessibility of midwives service scheme to the women farmers?
5. What is the level of affordability of midwives service scheme to the women farmers?
6. How effective is the midwives service scheme to the women farmers?
7. What are the constraints faced by the women farmers in accessing the midwives services scheme?
8. What is the level of utilisation of midwives services scheme among the women farmers?

1.4 Objectives of the study

The general objective of the study was to determine the midwives services scheme utilisation among women farmers in south western, Nigeria.

The specific objectives of the study are to:

1. examine the maternal health information sources available to the women farmers in the study area?
2. investigate the maternal health information seeking behaviour of the women farmers to maternal health services under MSS in the study area?
3. investigate the attitude of the women farmers to midwives services scheme utilisation in the study area,

4. ascertain the level of women farmers' accessibility to midwives services scheme in the study area,
5. determine the level of affordability of midwives services scheme by the women farmers in the study area,
6. determine the effectiveness of midwives services scheme utilisation by the women farmers in the study area,
7. examine the constraints faced by respondents in utilising midwives service scheme to improve their maternal health in the study area,
8. determine the level of utilisation of midwives services scheme utilisation by the respondents in the study area,

1.5 Hypotheses of the study

Ho1: There is no significant relationship between respondents' socioeconomic characteristics and the utilisation of midwives service scheme.

Ho2: There is no significant relationship between respondents' attitude to midwives service scheme and the utilisation of midwives service scheme.

Ho3: There is no significant relationship between effectiveness of midwives service scheme by the respondents and the utilisation of the midwives service scheme.

Ho4: There is no significant relationship between the constraints to utilisation of midwives services scheme and the utilisation of the midwives service scheme.

Ho5: There is no significant difference in the level of midwives service scheme utilisation among the respondents across the sampled states.

Ho6: There is no significant contribution of maternal health information seeking behaviour of respondents towards MSS, attitude to MSS, effectiveness of MSS, accessibility to MSS, affordability of MSS and constraints faced by women farmers in utilising MSS to the utilisation of midwives service scheme.

1.6 Significance of the study

Women farmers operate in the informal sector of the nation's economy with various involvements in economic activities for improved and sustainable livelihood. Women generally contribute significantly to household responsibilities upon marriage. Maternal health is a crucial index for the women's health in a nation and its socio-economic

growth. Rural women are prone to early marriage, which exposes them to multiple child births and complications during child delivery. They are also predisposed to socio-cultural challenges that could restrict them from seeking and utilising safe modern health facilities during pregnancy and childbirth. These put pregnancy and childbirth in the rural areas to the risks of life threatening complications that could lead to maternal mortality, as poor infrastructure and literacy status of women may not support timely access to safe maternal health care facilities.

Maternal mortality has a ripple effect on the farm families' welfare and the domestic food production supply in the country. Farm families who experience maternal mortality are at risk of losing their infants to death and older children to construction works in the cities to make up for the contributions of their deceased mother to the family welfare. The support of family friends and relatives would inevitably wane overtime and the deceased mothers' families are vulnerable to poor survival with the tendency for reduction in family income, which could be devastating on such families. Maternal-orphaned children could drop out of school and take to social vices in the society, putting the society at security risk sooner than later. The maternal health care of the women farmers reside cannot be fixed by a single legislation of midwives service scheme designed to increase the skilled birth attendants' ratio to child bearing women in the rural area, with the expectation to drastically reduce maternal mortality in the rural areas.

There is need to investigate the determinants of the programme utilisation among the women farmers, so as to identify the factors that support or hinder its utilisation among the women farmers. This would help to identify the causes of maternal death in the rural areas and prevent them through necessary suggestions for policy adjustments and to strengthen the use of MSS as a safe reproductive health programme for women farmers' households. This would empower the women farmers to adequately and effectively utilise MSS, prevent avoidable maternal death among women farmers, largely contributing to food production in the country. It would hence sustain their contributions to agricultural production and family welfare for many more years. United

Nations Education Scientific and Cultural Organisation (2003) posited that rural development involves strengthening institutions and all sectors of the economy, with the participation and involvement of rural dwellers as key players. Therefore, rural development encompasses a broad and integrated evolution of sustainable, social and environmental amenities that seek to ameliorate the living conditions of the rural people. Hinged on this premise, MSS as a government intervention, facilitated as a policy and amenity to promote safe maternal life and empowerment of women in safe child delivery requires the determination of factors influencing women's utilisation.

1.7 Scope of the study

Different health situations abound in the rural area, where it is believed that larger percentage of Nigerian farmers reside, with women farmers' involvement in multi-tasking roles along the value chain of agricultural production and sustainable food production. It is possible to study the effect of ill-health situations on the women farmers, but the scope of this study is limited to examination of the determinants of utilisation of midwives service scheme among women farmers. Women farmers remain important to achieving sustainable agricultural production as they provide farm labour, bear farm children, teach and mobilise them in carrying out farm activities, which strengthen subsistence agricultural production. Women farmers dwell in rural areas, with deficits of infrastructural amenities needed for decent living, causing poor health outcomes in the rural areas. Many skilled birth attendants, particularly the obstetrics and gynecologists, highly skilled in safe children delivery are largely found in urban health facilities putting the rural areas at a disadvantaged position of poor access to highly skilled birth attendants.

MSS is established to provide equitable access to safe maternal health in both rural and urban areas of the country through collaborative efforts of government and community leaders in mobilising women to utilise it for their maternal and other health issues. The safe maternal health programme of MSS operations have many components that are interrelated in a complex way through social, environmental, cultural, economic and political dimensions that may influence its utilisation by women of the women and their

health outcomes. Studies in this field require painstaking detail, involving multi-disciplinary approach and measurement of multiple variables ranging from socioeconomic characteristics, respondents' sources of maternal health information, maternal health information seeking behaviour of respondents to MSS utilisation, accessibility to MSS, affordability of MSS, effectiveness of MSS, constraints to MSS utilisation as predictors to the utilisation of MSS among women farmers.

However, due to the focus on women farmers predominantly resident in rural areas, Lagos, Ondo and Osun were not considered in the selected states representing southwestern Nigeria. The data collected and analysed on these variables were carried out in line with acceptable scientific research and methodological procedures, so as to guarantee authenticity and logical generalisation of results.

1.8 Operational definition of terms

Child bearing mother: refers to a woman in her reproductive age, between puberty and menopause age. This is the stage of child fertility and possibility for childbirth in a woman.

Maternal health: is the motherhood condition, notable with pregnancy, management of pregnancy, childbirth and family planning for a productive family life.

Maternal mortality: is the number of deaths of childbearing mothers in a year due to pregnancy or childbirth.

Midwife: is a professional certified by a recognised institution of a country to legally attend to the health care needs of mother and child for successful family life in the society.

Skilled Birth Attendant: is an accredited and certificated government health professional such as doctor, nurse, midwife and community health extension worker which do not include traditional birth attendants.

Obstetric: means childbirth.

Postpartum hemorrhage: it means excessive bleeding after childbirth.

Gynaecologist: refers to a qualified and certified medical doctor with specialty in the physiological functions and diseases affecting child conception in women. He is a professional health specialist on safe child delivery through natural means or surgery.

Referral: means a process in the three tiers of health system including, primary at the village level, secondary and tertiary levels at the urban centres. Patients from the primary level are directed to any of the secondary or tertiary levels (general and teaching hospitals) of health care for temporary treatment after initial admission at the primary health care for better medical attention, easeful with the ambulance service.

Utilisation: is the use of something, finding effective use for something or practices of an action sustainably. It is the enhancement, sustenance and enthusiastic promotion of a practice based on stimulating factors.

Rural: means less developed or less developing area in terms of basic and social amenities aiding social and economic satisfying lifestyles of inhabitants. It is characterised by people who are engaging in primitive approaches to environmental and developmental issues.

Women: means a collection of female group of children producing age, ascribed with social roles by the society.

Ethical Approval

Permission to proceed on the research work was obtained from midwives service scheme coordinators in Ogun, Oyo and Ekiti States. This was done by sending out letter for permission to midwives service coordinators and heads of the various selected midwives service scheme facilities from the Department of Agricultural Extension and Rural Development. After permission was granted through delivery of the letters by the researcher to the authorities of the various midwives service scheme facilities, the date for data collection was fixed. Permission and cooperation were sought from the Village Development Committee at Omujo Ekiti and Ofada.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter captures the major concepts and relationships between past and recent researches on a research topic, with empirical facts reported in the literature for improved understanding and updated knowledge. It is the summary of the evaluative report of information found in the literature that is related to the research topic.

2.1. Characteristics of rural areas and utilisation of modern health care delivery system

Ekong (1988) characterised rural areas as places with poor institutions, inadequate infrastructural facilities, having residents living below international standard of daily income per day and possessing low capacity for effective agricultural productivity as subsistent farmers. This posits that the rural areas have inadequate social and basic amenities to support social and economic satisfying lifestyles among the inhabitants. Studies by Adebayo (1998) and Ajadi (2011) described rural areas as districts with low infrastructure, having residents predominantly engaged in crude farming operations and other low skilled jobs in the informal sector for survival. Large proportion of the Nigerian people dwell in the rural areas and are highly populated by women (Nnadi, Chikaire, Atoma, Egwuonwu and Echetama *et al.*, 2012).

According to Sekitoleko (1990), women participation in agriculture is most common in the villages from time immemorial; women dominate the farm management and its sustainability in rural areas. Subsistence farming is characterised by active involvement of rural women farmers. They are major stakeholders in agriculture in Nigeria, with a manifest of large percentage in the farm labour force from the past research of Jiggins

and Olawaoye (1997), who reported that women contributed more to farm activities among the peasants who dominate the farming population of Nigeria. This is further corroborated by Fresco (2008) that women are involved in nearly all the stages of agricultural operations. Moreover, Agumagu, Ifeanyi-obi and Iromuanya (2014) posited that in most rural areas, agriculture leads the employment of the people and women are more engaged in it than their men counterpart.

Furthermore, Aromolaran (2004) added from his research on workers group, that in the growth of the production and consumption of goods and services over the world, the rural areas offer most of the labour, migrated to towns and cities, skilled in the informal economy, enhancing the services of the formal economy for optimal production. Farming offers the most self employed business to rural dwellers and women farmers tend to bear many children without conscious effort with their husbands to plan for desired number of children, as their interest seems to lie on having family labour to sustainable farming as a legacy and family business.

Killen (2005) reported that the local population of Nigeria which provides majority of the food consumed and raw substances for industries are deprived of orthodox health system, found to be very efficient and supportive to high life expectancy rate. This makes the rural dwellers susceptible to incur horrible losses of lives due to poor health care suffered from the alternative fake drugs commonly sourced at chemists and herbs used, as alternatives to modern healthcare. The rural areas tend to be vulnerable to poor health from the studies above, borrowing a leaf from the identified poor infrastructure reportedly domiciled in the rural areas. According to the World Bank (2008), more than half of the Nigerian population lives in the rural areas, far from situated orthodox health services in the urban areas, thereby denied of quality health service and puts childbearing women at risk of maternal mortality.

Moreover, women are faced with gender imbalance and inequality in most rural homes, advancing men as slave masters and women as slaves (United Nations, 2010). This results in male dominance in the rural areas as cultural belief and stereotypes regarding the roles and responsibilities of women and men in family matters. This can limit

women's control over their health needs and access to health care, which may negatively affect maternal health outcomes in rural homes. Men as principal decision-makers on family matters in many rural societies, with maternal health as one of the kind in rural areas may restrict women from seeking modern health services during pregnancy, at child birth and after the child birth.

Hughes (2004) reported that local women are frequently deprived the right to access social intervention programmes on maternal health needs, due to social construct of strict adherence to husbands position on maternal and other family issues, either soothing or not soothing to the women. Gender norms and values may negatively influence the utilisation of safe reproductive health programme such as MSS in rural communities. Onah, Ikeako and Iloabachie (2006) added that most Nigerian women in Nigeria are poor, particularly those resident in the villages, having little or no access to modern health care facilities. An understanding of the gender-related dynamics of maternal seeking behaviour in rural families, as well as of decision making and financial authority within households are keys to ensuring effective utilisation of safe maternal health programme such as MSS.

2.2 Maternal mortality

World Health Organisation (2007) describes maternal mortality as death suffered by women during pregnancy and childbirth, which remains the lead death experienced by women in less advanced nations. In the same vein, Shah and Say (2007) defined maternal death as the death of a woman in pregnancy situation, either resulting from abortion or childbirth, but not accident induced. Nigeria remains one of the leading countries with horrific and worrisome maternal death (WHO, 2008). Annually, thousands of Nigerian women are lost to maternal death; caused by poor maternal health management (WHO, 2005; Ladipo, 2006; United States Agency for International Development (USAID), 2008). Moreover, Ujar, Aisien, Mutahir, Vanderagt, Glew *et al.* (2005) noted that causes associated with women death during pregnancy and childbirth in Nigeria are age of women, non-educated state of most women, multiple births of children and poor utilisation of orthodox health centres.

Omoruyi (2008) reported that in Nigeria, most maternal mortality cases resulted from non-diagnosis of diseased conditions of women and ineffective treatment, excessive bleeding, quack attention to pregnancy termination, extended labour and hypertension among childbearing women. Data on Millennium Development Goals (MDGs) in Nigeria showed that in spite of drop in maternal death in 2008, compared to earlier years, the achievement is still low and worrisome (Federal Republic of Nigeria, 2010). In addition to other interventions designed to reduce maternal death by one-quarter of annual childbirth in Nigeria, the tripartite arrangement of Nigeria government with development partners, have progressively advance access to quality maternal health services through Midwives Service Scheme (Federal Republic of Nigeria, 2010, 2012).

However, maternal mortality is increasing rather than reducing in Nigeria. Evidence from United Nations Economic Commission for Africa (UNECA, 2013) reported that, globally, Africa top the list of countries with horrendous maternal mortality record, and Nigeria had significant contribution to this worrisome account. Adewole (2017) corroborated the report of UNECA (2013) that Nigeria adds little percentage to the world population but it is very discomfoting that it takes high percentage in maternal death, a pattern that must turn in opposite direction. Maternal mortality can be described as death among women as a result of pregnancy and child bearing associated cases. The death of a mother as a result of childbirth leaves the family vulnerable to family productivity losses, maternal orphanage of children and poor condition. Thus, maternal mortality has potential to reduce the availability of labour, skills and time allotted to farming by rural women-farmers and the bereaved rural farm families, thereby impacting negatively on agricultural production among rural homes and communities. Hence, maternal mortality can be prevented as a social mishap with potential to undermine the agricultural productivity of the women farm force, if the rights of women to modern health facilities in terms of right of decision to utilise, as empowerment through legislation, sensitization of pregnant women farmers husbands on the maternal safety of MSS utilisation. Intensifying awareness on MSS in various rural communities, ensuring residents accessibility to MSS and affordability of MSS by the government remain critical to the utilisation of MSS. Nigeria did not meet the Millennium Development Goals before its

expiration in 2015, but have subscribed to Sustainable Development Goals with improvement on strategies for realisation of reduction in maternal mortality, to its far positive reaching implications in the society.

Maternal death can be used to adjudge the state of mother and child in Nigeria, likewise the prospect for improved childbearing system (National Population Commission, 2004). Reproductive health programme of MSS in the country offers a pro-active measure for promoting safe maternal health, mobilisation of women to participate in MSS utilisation through sensitisation of child bearing women families on safe maternal health. This provides platform for women empowerment on safe maternal health knowledge and strengthening the use of MSS with a view to safe guard women from preventable maternal death.

2.3 Maternal health information of women farmers

Maternal health information is the believed facts gathered by women during maternity for usage, with the anticipation and expectation of having safe pregnancy, safe child delivery and healthy babies. Ignorance and negative influence of gender inequality could predispose pregnant women to seek wrong information on maternal health through traditional birth attendants that may lead to negative maternal outcomes. Available maternal information sources remain crucial to the awareness of women-farmers on safe maternal health programme of MSS, alternatives to MSS and maternal outcome of utilisation of either MSS or alternatives to MSS. These have proclivity tendency for MSS utilisation in rural farming communities. Quality maternal health offers family planning and needed information on child spacing, enjoyment of marital life, safe prevention of pregnancy and timely consult of health professionals' attention to sick conditions, thereby improving the wellbeing of women (Women's Health West, 2011).

Studies revealed that women gain better maternal experience when educated, similarly they remain in vantage position of having safe pregnancy and pleasant maternal result (Harrison, 1985; Harrison, 1997). Moreover, having facts and exposure on safe maternal life prevent women in the villages from unpleasant maternal outcomes (Mushi, Mpembeni and Jahn, 2007; Roth and Mbizvo, 2001). Moreover, Jammeh, Sundby and

Vangen (2011) added that a more knowledgeable woman on safe maternal health is inclined to proper judgement and choice in case of strange feelings and possible unexpected situation requiring immediate action. However, majority of the less advanced nations, harbour women with low educational level in their villages (Sharma, 2012). Women farmers seem to desire more children without conscious effort with their husbands to limit or space the number of children they want to have through the use of contraceptive methods, because it proffers them the opportunity to have more family labour at their disposal. State of World's Children (2004) reported that the educational level of the women holds inclination to their death or survival during pregnancy and childbirth.

Appropriate maternal information reception, involves targeting both male and female of teenage, youthful and ageing groups, likewise opinion leaders by skilled birth attendants, using a variety of channels for improved maternal knowledge. This will foster proper maternal knowledge among families and increase women's utilisation of modern health services through families support during pregnancy and childbirth, as absorbed cultural norm over time. Rosato, Laverack, Grabman, Tripathy, Nair *et al.* (2008) revealed that maternal health knowledge is more informative and efficient for reception when there is room for discussion with women and opportunity to ask questions from health professionals Moreover, safe maternal health knowledge is achieved by women when it is propelled on community sensitization, effective women participation in reproductive health programmes, recognizing the causes and effects of maternal death, at the same time, safe guarding measures to avert maternal death (Costello, Azad, Barnett, 2006; Rosato *et al.*, 2008).

2.4 Maternal health information seeking behaviour of women farmers to MSS utilisation

Information is a developmental resource for the growth of individuals and the community, as it affects almost all areas of human activities. Information aids the initiation and actualisation of appropriate step and decision by an individual against ignorance and threatening life issues, thereby stemming uncertainty on a concerned life

issue. Wilson (2000) affirmed that information wants are associated with various circumstances such as accessible information channels, the need for the information, moral justification to use the information, the projected result for using the information and the personal qualities of the individual. Haruna and Mabawonku (2001) asserted that information wants come up when there is limit to what an individual knows as solution to an issue and there is evolving dynamism of appropriate information to solve the pressing issue.

Information appropriate for health needs suffices from contacts with array of channels and quest for appropriate knowledge acquisition (O'Keefe, HartwigBoyd, and Brown, 1998; Rogers, Hassell, and Nicolaas, 1999; Gray, Cantrill, and Noyce, 2002). Safe maternal information through MSS may never be sought, may be promptly sought or delayed in seeking, as maternal health information may be relied upon by the long existing traditional birth attendants, indigenous to the rural people. Igwe (2012) described information-seeking behaviour as a personal search for useful information and knowledge acumen, predicating decision making on a concerned matter. According to Utor and Utor (2007), information is important to the village settlers for improved participation and involvement in development programmes. Rural women's possibilities for maternal health education seeking through MSS are however, hindered by gender rights and low literacy level that could restrict their opportunities to source safe maternal health information and utilise MSS for their maternal health. Harande (2009) reported that low educational level is more pronounced in the villages and among females in Nigeria.

Women in the rural areas are prone to marry early, vulnerable to teenage pregnancy, have longer exposure to pregnancy and greater number of childbirths unlike their counterparts in urban centres exposed to educational pursuit, career search in white collar jobs, business careers and marriage coming up at later age with more informed safe child birth practices. Nigeria Health Demographic and Health Survey (2013) reported greater educational level in the towns and cities than the villages. The educational level of the women farmers has a significant impact on their maternal health-seeking behaviour towards safe maternal health programme of MSS. Poor basic amenity of electricity could

limit women farmers' exposure to information on television and radio on new ideas to safe pregnancy and child birth. In the same vein, bad road network in rural areas, low vehicular movement and distance to MSS facilities could limit their knowledge and awareness of safe maternal health of MSS, having a negative bearing on their attitude and behaviours toward MSS utilisation. Some factors identified by the Mid Point Assessment Overview of the Millennium Development Goals (September, 2008) reported marginal improvement in the reduction of maternal death in Nigeria, with higher concentration of health facilities and health professionals in the cities far above the villages.

This could be narrowed with the engagement of media, effective for information broadcast at high speed and low cost for informed maternal health choice (Thomas *et al.*, 2012). A past study conducted by Bankole, German and Charles (1996) in Nigeria, showed that improved use of orthodox family planning through contraceptives use was connected with advocacy messages through the media.

2.5 Attitude of women farmers to Midwives Service Scheme Utilisation

Motherhood is observed as a fulfilling stage to many women, as it is characterized by changes in physical appearance, reproduction capability, psychological, cognitive horizons, social rights, social responsibilities, acceptability in the family and communities. Marital status, particularly among women-farmers that tend to be highly resident in rural areas, has possibilities of behaviours and expectations from husbands, relatives and other members of the community on child bearing issues and place of child birth, having a bearing on the family name and their customs preservation from externality and extinction. Attitude of the women farmers could sometimes be deviant from the acceptable norm in their society over environmental issues, when superior believe prevails on them to enlightenment and conviction on matters of better practices to gain pleasant and greater social satisfying outcomes.

Hence, attitude of women-farmers to MSS could be crude or refined, unfavourable or favourable possibly to primitivism, norm or acculturation, accommodation, cooperation or rural social change over a period of time through exposure to safe maternal health information through the radio, television, print media, community health extension

workers or fellow rural women with previous contacts with skilled birth attendants. Endearing customary beliefs hinder and threaten adoption safe motherhood through usage of orthodox health facilities in less advanced nations (Omobuwa, Asekun-Olarinmoye and Olajide, 2012); Nigeria is not exclusive.

Domestic violence is popular in both cities and villages in Nigeria (NPC and ICF Macro, 2009). Rural women are more prone to believe that a husband is justified in hitting or beating his wife, as they may think they have low status. This perception could act as a barrier for women to access safe maternal health care of MSS for themselves and their children, in circumstances where husbands do not support the utilisation of MSS. This could negatively affect women's attitudes toward MSS utilisation and self-esteem as disempowerment, because they lack autonomy to decide to utilise MSS for their maternal health without their husbands' consent. In order to evaluate MSS acceptability and attitude of women-farmers toward its utilisation, in depth exploration of the childbearing women farmers' disposition to MSS is of great necessity. This will help understand their social and cultural barriers, needs, expectations and views about MSS, explicit for behavioural and social change.

2.6 Affordability of Midwives Service Scheme

Socioeconomic and socio-cultural factors of the rural women are critical to the attendance fees required in seeking maternal health either from the modern health facilities of MSS or traditional birth homes. Studies reported that poverty is more pronounced in the villages with higher percentage of Nigerians in this region, experiencing poor availability and accessibility to basic social amenities that limit wellbeing and wellness of the locals (International Fund for Agricultural Development (IFAD), 2011; Awotide, Diagne, Awoyemi and Ojehomon, 2011). Moreover, Nnadi (2008) reported that poverty is not restricted to financial constraint in meeting with individual social and economic needs, but inadequacy of basic necessities of life. Rural pregnant women, women farmers inclusive; are not likely free from poverty as they may not be culturally empowered to choose desired maternal health care facility without clearance and consent of their husbands in a believed male dominated society.

In light of this, Kanbur (1987) reported that the people denied of the right to necessities of life, would grapple with array of challenges that defy capability to solve life complexities. The poor is symbolic with low means of livelihood and seems more concentrated in the villages, where they could live within their means and augment to survive life challenges. Adekoya (1995) reported that more than half of the Nigerian people have a low standard of living, and they are women. Female farmers are connected with peasantry farm practices and operations with low financial gain, because of limitations to farm resources and improved technology (Ani, 2003). Moreover, Babatunde (2008) posited that poverty is linked to low capacity building and it is a common feature in the Nigerian villages.

Demography of people actively involved in farming shows that they are more resident in the villages; operate on fragmented lands with crude traditional tools, vulnerable to farm risks and low yield (IFAD, 2007) as cited in Obisesan, Omonona, Yusuf and Oni (2012). Low standard of living is prevalent in the rural areas and the locals are pre-occupied with agricultural practices (World Bank, 2008). Women farmers could plausibly be restricted from utilising safe maternal health programme of MSS effectively, as they may be confronted with inability to freely decide to use MSS for their maternal health and other issues that affect their wellbeing; likewise challenged with low access to farm resources and capacity for autonomous decisions (Rubin, Manfre and Barrett, 2009). However, escaping poverty nets could depend on effective involvement of the local people to allow their women participate in MSS utilisation through viable cooperation between village development committee, skilled birth attendants and husbands in the community.

2.7 Accessibility and Utilisation of Midwives Service Scheme

Accessibility of health services is subject to availability and utilisation in less advanced nations (Mekonnen and Mekonnen, 2002). Nigeria is not different, as it falls under the classification of less advanced nation. According to Ojanuga and Gilbert (1992), array of customary values and traditions restrict women's access to proper health services suitable for their conditions and circumstances. Accessibility to health services among rural women holds inclination to acceptability and conviction of not the women and husbands,

but their families and the community at large. Therefore, community sensitization and public relations are essential for enlightenment and acceptability of appropriate health services, safe for maternal conditions in the rural areas. O'Rourke (2008) reported that pregnancy and safe childbirth involve a nexus of personal characteristics, enlightenment on safe motherhood, mental wellbeing and patterns of human relationships in the environment. This involves the social and economic state of an individual, at the same time, the cultural norms permissible for an individual to seek his or her reproductive health needs.

Adamu and Salihu (2002) added that because of male dominance in most traditional environments, women's right to seek help and utilise health facility for maternal purposes is subject to approval of men and their family members, even in the case of exigent circumstances. The nearness of the modern health facility to the rural women's residence is a crucial to its utilisation. Primary health care remains the closest modern health facility to the rural dwellers in Nigeria. Nigerian Central Bank (2004) reported that in the majority of African villages, access to modern health facility is inadequate. Lambo (2003) added that trekking is the most common means of conveyance, even with women trying to make it to the health facility for child delivery. Common impediments to accessing primary health care as MSS facility in the rural areas, include inadequate safe maternal health information, financial barriers, and difficulty in access to transport, the need for women-farmers to obtain permission from their husbands before going to the primary health care facility and the attitudes of health workers to the users of the primary health care facility. Moreover, health professionals' dispositions and treatment meted on patients while trying to receive medical help influence their search for and utilisation of health services, regardless of the level of care it offers (WHO, 2010).

The health providers' attention to the maternal health seekers could either boost their interest in continuous utilisation of health facility or discourage them from utilising, through impression generated from their contact with the health providers. Therefore, child bearing mothers accessing maternal services are vulnerable to abuse and neglect of skilled birth attendants with unethical behaviours, with situation of poor management of

overwhelming work load. Hence, child bearing mothers could be at risk to deprivation from utilising modern health facility for their reproductive needs, out of anger, not minding the harmful consequences of seeking unsafe alternatives of traditional birth attendants. WHO (2005) affirmed that complexities often related to pregnancy and childbirth manifest as symptoms before they aggravate to life threatening cases when not pro-actively responded to, through the help of skilled birth attendants. Many of the rural women still rely on traditional birth attendants and unsafe maternal homes for maternal health care, which often throws such families into the risk of maternal death.

In light of this, Khalid, Daniel and Lale (2006) added that in Nigeria, the use of orthodox health care for maternal health needs remain highly inadequate and women's death due to childbirth is of general concern and very worrisome. Adesiji, Dada and Komolafe (2012) reported that remote places of the country are deprived of adequate and effective utilisation of modern health services due to cultural restrictions and location in hard to reach places, as they perpetually experience little or no presence of government efforts in infrastructural development. Women faced with sexual abuse, domestic violence, non-dialogue fora with husbands and coercive rules are prone to financial dependence on husbands. This makes them vulnerable to seek unsafe child birth homes due to poor economic condition and un-informed decision.

Interventions by the government targeted at eliminating barriers to accessing safe maternal health care include safe maternal health promotion activities through mass media, establishment of midwives service scheme, provision of free contraceptives at the MSS facilities and distribution of child delivery kits to pregnant women due for childbirth. Hence, preventive and protective factors of against maternal death in the villages involve maternal health awareness campaign, mobilisation of child-bearing women to utilise MSS. This will not only improve the utilisation of MSS but tends to sustain its utilisation effectively.

2.8. Women farmers and food production in Nigeria

Women farmers play a key role in supporting their households and communities in achieving food and nutrition security, generating income and overall family well-being.

They contribute to agriculture and local economies of the world. Bzugu and Kwaghe (1997) reported that women dominate the human statistics of the rural places in Nigeria and are more involved in agricultural production and value addition to food products. These women are active participants in advancing local and national economies (Ajayi, 1997). Agricultural production and children bearing among rural women are often regarded as mere social responsibilities, involving lot of sacrifice and denial to meet and care for family needs, yet undervalued in social protection and gender rights in most local communities.

Rural women are not only notable for crop production, but also contribute to animal husbandry which improve nutritional adequacy in the country (Adisa and Okunade, 2005). In addition, Tologbonse, Jibrin, Auta and Damisa (2013) and Nuhu, Donye and Bawa (2014) reported that rural Nigerian women contribute greatly to the diverse stages of food production and sales of farm produce which improve the social statuses of many farm homes. However, they are confronted with low recognition as active farm labour in government provisions of farm credit, agricultural input and extension services usually directed to males. This limits their food production capacity and profitability on farm venture (Ani, 2003). Rural women are unfairly treated, in spite of their huge involvement in economic activities (Gueye, 2003). Despite women's role in family maintenance, home nutrition and food security in homes, child bearing and child socialization, her role has not been taken seriously and protected in the society. Women's position in the society is not well recognized and rewarded with adequate rights and laws by every moral and equity indices (Kehinde, Tologbonse, Adeniji, Yemison *et al.*, 2014).

Custom and tradition in most local communities deny women the freewill to make decisions on matters of concern (Ajani, 2008). Women's access to needed farm resources have been assessed to be very low, due to social restrictions, poor awareness on improved farming practices, poor ownership and control of farm resources (Amaza, Kwagbe and Amos, 1999; Hassan *et al.* 2002). World Bank (2003) reported that women's contribution to food production, food security, home nutrition and moral upbringing of children in less advanced nations is undermined by mythical social constructs that place men far above

women in production resources control and utilisation. Gender mainstreaming is highly crucial to women-farmers reaching their maximum potentials in agricultural productivity and enjoying effective participation in developmental programmes. This will reduce gender blindness, obstacles and restrictions of women to agricultural production factors such as; land, extension services, credit facilities usually directed to men, misconceived in developmental programmes as actual farmers while women are mere processors.

2.9 Maternal malnutrition

Food production and reproduction are two major activities carried out by women farmers to enhance their social status. In all societies, women are the prime care-givers to children, the elderly and the ill, and do most of the domestic tasks. The care for their family members satisfactorily often leads women to deny themselves of adequate nutrition as ethos of motherhood in situation of food inadequacy. It often goes hand-in-hand with hunger, malnourishment, poor health, insufficient education and unhealthy family lifestyle that could cause maternal mortality and morbidity rates for pregnant women. Women's health risks linked to reproduction; possibly make them more vulnerable during pregnancy to malnutrition, malaria, diabetes and other illnesses. Their lives are greatly affected by reproduction, bringing deep affection and sacrifices for family, which has a direct impact on their health and the family's welfare.

Malnutrition can kill mothers, children, family members, and prevents them from reaching their full intellectual and productive potentials. The food consumption pattern and dietary intake of pregnant women have a bearing on the development of the unborn child and the weight at birth of the baby when eventually born (Yajnik, Fall, Coyaji, Hirve, *et al.*, 2003). Improper feeding of pregnant women could cause child expectant families stillbirth. Also, poor nutrition in child bearing women-farmers' life increases their reproductive and maternal health risks, and hence lowers their economic productivity. However, nutritional adequacy increases the chances of having safe pregnancy and healthy babies (Cooper, Westlake, Harvey, Javaid, Dennison and Hanson, 2006).

2.10 Traditional Birth Attendant

A person who assists mothers during childbirth in communities and faith homes, having acquired skills of child delivery through apprenticeship on verbal contracts from elder women, and passed on to younger women as new entrants. They are usually either non-literate or semi-literate with social interactions among fellow villagers and households to sustain their practice. Traditional birth attendants are highly dependent upon for child delivery with high patronage in most African rural communities (Fatusi and Abioyekuteyi, 1997). A traditional birth attendant is defined by United Nations as someone who helps pregnant women during labour deliver babies through learning by observation under the tutelage of older women who had earlier gone through same process and have more childbirth experiences (WHO, 1992). However, they are not well skilled in the management of pregnancy complication cases and often confront such cases in a show of self-aggrandizement which usually lead to horrible maternal death and sometimes both maternal and infant mortality.

Households in rural communities seem to build ties with traditional birth attendants (TBAs) for direct accessibility and affordability of their health care services. They help maintain and promote socio-cultural heritage of many families, as regards child birth and christening. However, the health practices of TBAs are crude, unsafe and unsanitary. Ofili and Okojie (2005) asserted that the most medications given to patients by TBAs were non-scientifically proven drugs, made through local trial by error experiments on those consulting them. This puts many locals at risk of imminent maternal risk through patronage of TBAs for maternal health situations. Also, TBAs seem to adopt and encourage traditional family planning methods of either abstinence or withdrawal among married and adolescent members of the public patronizing them. They make patients and families believe that resultant effect of child deliveries conducted by them is a product of fate and destiny as myth in accepting high possibility of negative maternal outcome. Prayers and fasting is however resorted to in cases of obstructed labour and retained placenta as remedy for danger signs of maternal outcome, under ignorant influence of make-belief. Hence, management of pregnancy complications by TBAs is unhealthy for child bearing mothers.

Midwifery is carried out globally in connection with diverse societal customs and ethoes of places, but regulated by nationally constituted regulatory agencies ensuring ethical professionalism and conformity with rules to optimally achieve safe maternal health (Connerton, 2012). This differs from nation to nation but set-up to forestall preventable maternal death and infant mortality. Despite global umbrella for diverse national midwife regulatory agencies in various countries, TBAs are not captured under their watch for professional training and ethical practices (Harrison, 2009).

Traditional birth attendants offer long customary family health care to the rural people. Traditional birth attendants have a tendency of engaging unsanitary and unhealthy practices in caring for pregnant and child bearing mothers, with resultant effects of maternal death and agony in victim families. Ofili and Okojie (2005) reported that majority of the maternal and infant mortality recorded in Nigeria happened in unsanitary environments of traditional maternity homes with poor professionalism. Therefore, skilled birth attendants are key in achieving very low maternal death and safe maternal health delivery in the nation (Rowe, DeSavingy, Lanata and Victoria, 2003). Hence, traditional birth attendants have to undergo professional training under the tutelage of government certified skilled health professionals, because they are more patronized by the locals (Ofili and Okojie, 2005). This will significantly reduce maternal death in the rural areas.

2.11 Skilled Birth Attendants

Skilled birth attendants (SBAs) are health persons certified and licensed by the government to practice midwifery; having undergone qualifying training programmes at government approved and accredited medical institutions. They are often regulated by government laws and policies guiding midwifery practice. SBAs operate in hospital environment, assist pregnant women to deliver their babies safely, ensure the health needs of mother and child and every other person that consults them for medical needs are well met by giving the best medical counsel and treatment in sick conditions (Connerton, 2012). They include doctors, nurses, midwives and community health extension workers. They have safe child delivery kits and enhanced capacity to

effectively and successfully ensure safe child births. They have sound knowledge on the danger signs such as high blood pressure in and obstructed labour in women during pregnancy and shifted uterus after birth with preventive care and appropriate management.

They exercise meticulous safe health practices of using disposable gloves, washing of hands with soap and sterilisation of health equipment administered to patients during child delivery and circumcision of male child and other health situations prevent transferrable diseases and death through carelessness. The skilled birth attendants usually crave for placement in urban areas with wide margin of presence due to better infrastructural amenities aiding job satisfaction compared to those present in the rural areas. According to Ofili and Okojie (2005), SBAs are called professional health officials.

2.12 Nigeria's health policy

Nigeria promulgated the national health policy for equitable access to quality health care by Nigerians in 1988. The need for reformation of established health policy health led to its critical assessment in 2004. The new policy is reviewed as the Revised National Health Policy in September 2004 with specified equity in programme objectives for all and sundry (Federal Ministry of Health, 2004). According to Nigeria Demographic Health Survey (2008), Nigeria's health policy is hinged upon the tripartite arrangement of the Nigeria government with agreeable duties and expectations of each government. This was conducted with memorandum of understanding. The government made provision for accessible primary, secondary, and tertiary health care services for the entire Nigerian population through a functional referral system. It also allows for non-government organisations collaborative support with Nigerian government in advancing efficient health delivery system to all Nigerians. It involves seeking partnership in international health organisations for better health delivery system and competent skill acquisition by government medical personnel.

According to National Bureau of Statistics (2013), the objective of the revised health policy is to maintain equality and fairness in terms of Nigerians access to quality health

care, cost of seeking health care and accountability in health administration. The national health policy identifies primary health care as the framework to achieve improved health for the population. PHC services include health education; adequate nutrition; safe water and sanitation; reproductive health, including family planning; immunisation against five major infectious diseases; provision of essential drugs; and disease control. According to the policy, a comprehensive health care system delivered through PHC centres must incorporate maternal and child health care, including family planning services. Nigeria's health sector is faced with rural and urban differences in the number of functional health facilities and stationed skilled health professionals, efficiency in medical services delivery, availability of medical equipment and economic opportunities to afford cost of health care. In view of this situation, the government of Nigeria initiated social interventions such as; the Midwives Service Scheme (MSS); the Subsidy Reinvestment and Empowerment Programme and Maternal and Child Health (SURE-P-MCH). Midwives Service Scheme remains the only surviving intervention for improving maternal health and reduction in maternal death in the country.

2. 13 Midwives Service Scheme (MSS)

The planning and implementation of MSS is built around Primary Health Care (PHC) as the platform and pathway towards improvement in the national reproductive health outcomes of reducing mother and child mortality. Preventable maternal mortality and morbidity have been globally recognised as a global issue with the consensus agreement of the United Nations on improvement of maternal health through the Millennium Development Goals and Sustainable Development Goals. The PHC operates with decentralized authority in implementation of its reproductive and other health functions at local, state and federal government levels, providing the most basic health services and often the only source of health care available to majority of Nigerians living in remote and hard to reach communities (NPHCDA, 2010). Three categories of midwives are being recruited as part of the MSS called skilled birth attendants; the newly graduated midwives, the unemployed midwives and the retired midwives.

They are posted for one year, renewable subject to satisfactory performance in the designated Primary Health Centres (PHCs) in the country. The federal government is expected to pay ₦30,000 and state government, ₦20,000 monthly as remuneration paid to the midwives, while the local government is expected to pay ₦10,000 monthly to the midwives and supply them with accommodation. The federal government provides basic health insurance coverage for all the midwives, provides midwifery kits for each of the participating PHC facilities, personal health record booklet, basic maternal and child health equipment, drugs, registers, and monitoring tools to the PHCs. The federal government provides technical support to the states and local government areas (LGAs) on the implementation, supervision, monitoring, and evaluation of MSS. The state governments support the use of general hospitals as referral facilities for the MSS, supplies drugs and other consumables, ambulance services, electricity and potable water, stationery, security for health workers and equipment. The skilled birth attendant provides pregnant women with maternal information, treatment of existing medical conditions, screening for maternal risks factors and appropriate preventive measures for safe child delivery.

However, over the years there have been unresolved issues of equity, low coverage of health facilities and poor health outcomes in Nigeria, despite PHC being in operation since 1988. Moreover, several initiatives have been introduced in the country by successive governments to reduce maternal morbidity and mortality among mothers and children such as Safe Motherhood (1993), Integrated Management of Childhood Illness (IMCI) (1997), Integrated Maternal Newborn and Child Health Strategy (IMNCHs) (2007), Integrated Disease Surveillance and Response (IDSR) (2008), among others, existing gaps still remain, varying from infrastructure, access to quality health facilities and health personnel, as persistent needs. A renewed effort for revitalisation of PHC and lessening the sub-optimal utilisation of PHC system, initiated MSS intervention programme to bolster the effectiveness of the PHC system. The Nigeria Demographic Health Survey (NDHS) of 2008 revealed that overall maternal death reduced significantly but there is a big difference in various zones of the country. Professional health officials' ratio to pregnant women, likewise immunization and outreach services remain

significantly poor (NHDS, 2008). The low coverage could likely translate to high rate of maternal mortality.

Midwives service scheme is provides four midwives and two community health extension workers running three shifts to ensure twenty-four hours services. The midwives offer integrated maternal newborn and child health services comprising antenatal, immunization, neonatal care, post natal care, family planning, infant welfare, health talk of nutrition and hygienic practices both at the MSS facility and through communities as outreach programmes. They promote modern methods of family planning through enlightenment on conscious efforts to be made by couples to limit or space the number of children they want through modern methods of female sterilisation, male sterilisation, pills, intrauterine device (IUD), injectables, implants, male condoms, female condoms, the diaphragm, foam/jelly, the lactational amenorrhoea method (LAM), and emergency contraception. Laboratory service, referral service and ambulance service are also provided to pregnant women in the MSS programme.

Each target community has Community Development Committees (ward or village) with membership drawn across interest groups through the help of local leaders and local government area councillors, a respectable person is elected by committee members as chairman, an elected literate member of the community serves as the secretary, with representatives of religious groups, women groups, occupational groups, non-governmental organisations, youth, traditional healers, patent medicine stores owners, a trusted member of the committee serves as the treasurer. They meet monthly to discuss health needs of the community, constraints to health improvement options, plan for health and welfare of the community.

Under the MSS, retired and newly qualified midwives provide services at PHC facilities in underserved communities around the country. The scheme funded through MDG debt relief gains on a cost-sharing basis among the three tiers of government, has trained and deployed approximately four thousand midwives and one thousand community health extension workers (CHEWs) in one thousand PHC facilities. This has improved access to skilled birth attendants in three hundred and seventy five LGAs across the country. In

addition, MSS is tailored towards infant mortality reduction and healthiness of mother and child (National Primary Health Care Development Agency (NPHCDA, 2012).

MSS offers safe reproductive health care, as the care a woman receives before and during pregnancy, at the time of delivery, and soon after delivery, which is important for the survival and well-being of the mother and her child. It allows for regular medical counsel of mothers by skilled birth attendants during pregnancy and after childbirth, adoption of child spacing and enjoyable safe motherhood (Franny, 2013). To boost the proportion of skilled birth attendants, the government recruited additional midwives and community health extension workers (CHEWs) and supported training of CHEWs on modified lifesaving skills through the Midwives Service Scheme. Infection prevention is a very important strategy in ensuring desirable outcomes during the delivery and postnatal periods. Neonatal tetanus is a common life-threatening complication after delivery, especially in rural areas where modern health facilities may be poorly accessible to women. This condition can be caused by using contaminated instruments or applying contaminated substances to the umbilical cord after cutting. The act of combating infections led the Federal Government of Nigeria, through the Federal Ministry of Health to provide clean child delivery kit known as the “Mama Kit” in primary health care centres used as MSS facilities.

2.14 Antenatal Care

The major objective of antenatal care is to ensure optimal health outcomes for the mother and her baby. Antenatal care service (ANC) from skilled birth attendants is important to monitor the pregnancy and reduce morbidity risks for the mother and child during pregnancy and delivery. Antenatal care provided by a skilled birth attendants enables the following; early detection of complications and prompt treatment (e.g., detection and treatment of sexually transmitted infections), prevention of diseases through immunisation and micronutrient supplementation, birth preparedness and complication readiness and safe maternal health promotion and disease prevention through health messages and counseling of pregnant women. The antenatal care policy in Nigeria follows the WHO approach to promoting safe pregnancies, recommending at least four

ANC visits for women without complications. This approach emphasizes quality of care for pregnant women during each visit instead of focusing on the number of visits, providing assistance during childbirth to avail safe birth outcome and safe mother and child with proper management and hygienic practices of skilled birth attendants.

2.15 Postnatal Care

This is the care given to mother and child after birth, as it is particularly important for women, because during this period they may develop serious life-threatening complications, especially in the interval immediately after child delivery. Lot of maternal and neonatal deaths occur during the first 48 hours after child delivery according to skilled birth attendants. Post natal care provides an ideal time to educate a new mother on how to care for herself and her newborn baby.

2. 16 Health insurance coverage

Nigeria's National Health Insurance Scheme was established in 1999 to ensure health insurance coverage for the entire population. Not many women have registered since its establishment because majority of the rural women are in the informal sector category and have not been captured in the health insurance programme (National Demographic Health Survey and ICF Macro, 2009). Moreover, those in the formal sector are well captured and utilise it effectively because they work in structured organisations located in urban areas, which cooperate very well with the government data collection. The practice of purchasing health insurance is basically urban-centred and is more common among people in the formal sector than the informal sector of the Nigerian economy. Health insurance coverage is also more common among educated women and men in the urban areas than the less educated people in the rural areas.

2.17 Primary health care utilisation as an intervention for reducing maternal mortality in Nigeria

According to Mojekwu and Ibekwe (2012), primary health centres are located in all the local government areas of the country for pregnant women to access the one closest to them, while they get antenatal care, safe child delivery and postnatal care through visits. In cases where complication arises during labour, pregnant women are referred to

secondary health centres, under the control of states, or tertiary health centres, under the control of the federal government (Mojekwu and Ibekwe, 2012). Moreover, there is a great margin in the level of utilisation of primary health care in both urban and rural areas, as many skilled birth attendants seem to enjoy better working relationships with child bearing women in the urban areas than rural areas. However, Yahaya (2004) reported that women in rural areas have low access to medical services, due to cultural restrictions and denial of right to free choice on maternal health care facilities, like every other family decisions by their husbands. This puts village women to the risk of maternal death. Nigerian Central Bank (2004) reported that in the majority of the villages, women reside far away from modern health care facilities.

According to Nigeria Demographic Health Survey (2008), women in the villages have poor awareness on utilisation of modern health facilities. Hounton, Chapman, Menten, de Brouwere, Ensor, Sombié, Meda and Ronsmans, (2008); Igberase and Ebeigbe, (2006) reported that poor economic capability limit the utilisation of maternal health services and often lead to poor utilisation of modern health facilities. Educated women are more enlightened, empowered and have higher autonomy to make decisions on the quality of health care they receive (Nigeria Federal Ministry of Health, 2005; Nigerian Central Bank, 2004). In a similar vein, research conducted by Yarzever and Said (2013) revealed that the larger proportion of women residing in towns and cities are well enlightened that childbirth at modern health facilities are safer and guarantee safe maternal health than traditional maternity homes often utilised in the villages.

The reports of Adetoro, Taiwo, Martins and Ann (2007); Audu and Ekele (2002) are consistent with earlier reports that women residing in town and cities are at vantage position over those in the villages because they are more aware and better exposed to safe motherhood than their counterparts in the villages. Rural women seem more vulnerable to maternal death, despite availability of primary health centres all over the nation. User fee has a potential for limiting rural child bearing women's search for appropriate maternal health through primary health centres, as it may not be patient friendly economically. Thereby making alternative traditional birth homes suitable and preferred to them, as it

requires little or no service pay. Urban areas seem to expose child-bearing women to more awareness on safe motherhood programmes and promotion of girl child education through various mass media with positive impacts on better utilisation of primary health centres than the rural areas. Hence, rural child-bearing women are more vulnerable and susceptible to maternal death than their more informed urban women counterparts on safe maternal health practices.

CHAPTER THREE

THEORETICAL AND CONCEPTUAL FRAMEWORK

3.1 Theoretical framework

This section presents theories and models that were considered relevant to this work. These theories underpin and aided in the explanation and understanding of the study. The theories are;

1. Health Belief Model
2. Andersen's Model of Health Care Utilisation
3. Theory of Planned Behaviour

3.1.1. Health Belief Model

It is propounded by Irwin Rosenstock in 1966. The model explains why an individual vulnerable to sickness or epidemic may accept or reject preventive procedures or adopt healthy behaviours. It proposes that a person's health-related behaviour is determined by his or her belief in four main areas;

- 1) The affliction of a potential illness, or health condition, for instance, pregnancy condition in women could either be seen as a threat, posing risk to the wellbeing of the mother and expected child or not considered as a threat to their lives.
- 2) The individual's susceptibility to an ailment and action to forestall it depends on his or her belief of the possibility of being affected or vulnerable such ailment condition. A case study of the pregnancy condition in women could prone pregnant women to some ailing conditions whether they like it or not.
- 3) The gain of taking preventive action against illness depends on personal conviction of safeguarding actions, as a cue or counselled behaviour that can help an individual

prevent the possibility of unpleasant outcomes of such vulnerable ailing condition. An example is the health counsel given to pregnant women on sleeping under the mosquito net could help in the prevention of malaria if accepted and utilised.

- 4)The hindrances to taking preventive action against vulnerable ailment depend upon prevalent circumstances around a person, which could make compliance to health counsel difficult to take. These may include socioeconomic factors, custom and tradition, the distance to health facility for consult and cost of seeking medical care as a caution against negative health outcome among others.

This model explains the likely problem behaviours or cost-benefit analyses that influence health concerns by an individual as a de-motivator or incentive to expression of a particular health behaviour to a medical condition. This model relates with midwives service scheme concept, showing that an individual child bearing-woman could accept or reject this scheme having great potential to prevent maternal mortality. The choice of a woman to either accept or reject safe maternal health could depend upon the following components:

- 1)The severity of the danger signs experienced in her pregnancy state: A pregnant woman may not patronise MSS until she experiences some complications believed to be threatening her baby or her life, which could be sensed to have unpleasant pregnancy outcome, if not maternal death.
- 2)The pregnant woman's susceptibility to ailing conditions as pregnancy symptoms, leading to much discomfort could make her feel vulnerable to maternal death if quick call on MSS is not taken.
- 3)The benefits of taking preventive actions against likely unpleasant pregnancy outcome envisaged from her ailing pregnancy state could safeguard her pregnancy and life from bad outcome. This could be achieved by the acceptance of visitation and registration of antenatal care with MSS.
- 4)The barriers to accessing MSS could make the prevention of unpleasant pregnancy and child birth outcome difficult to achieve, as it could militate against a child bearing woman's choice of utilisation. These could be different constraints such as distance to MSS, user fee, husband's decision and custom dictate on place of childbirth among others.

3.1.2. Andersen Model of Health Care Utilisation

Andersen (1968) developed a model of health care utilisation which considers three levels of decisive factors affecting outcomes:

(i) Predisposing factors: These represent the influencing elements to utilise health care services. An individual is more or less likely to use health services based on his or her socioeconomic characteristics and belief in the benefits of health services. The predisposing factors include age, gender, marital status, education, occupation, societal norm and membership of an organisation, which could determine the social and economic class of a person in a community, his or her ability to cope with the health problem at hand and the resources available to deal with the problem. General beliefs or attitudes about health care services might also predict its use. An individual who believes health care services are useful for the treatment of ailing conditions will likely utilise those services for his or her sick conditions.

(ii) Enabling factors: This includes available infrastructural amenities and economic potentials in an environment, access to health facilities and awareness on health services. Accessibility to health care facilities involves proximity to the health care facilities and the availability of health professions to attend to patients' health needs.

(iii) Need based factors: This includes individuals' perception of need for health services, whether personally or socially influenced disposition to health needs. Thus, health service need could either be an individual's subjective assessment of need or advised need offered by health professional. Andersen health model was revised in 1995, showing that utilisation of health care system depends on health policy, social and economic accessibility to health care services, and conviction over time. It also shows that there is a connective association among processing factors such as; primary determinants, health behaviours and health outcomes which lead to utilisation of health services among people.

Primary determinants are the factors influencing health behaviours, which include demographics, the management of the health care system and the external environment, characterised by traditions, infrastructural facilities and economic factor influencing the

utilisation of health facilities and services. Management of health care system involves health personnel and medical equipment supplies, likewise level of funding. These ultimately influence individuals' behaviours toward health services utilisation. In addition, individual health behaviour influences health result.

Health behaviours include personal health practices such as dietary intake and routine body exercises and how often an individual utilise health services. Health outcomes are the results of the preventive actions taken as health education towards an envisaged ailment, diagnosis of an ailment or treatment administered to cure an ailment, which may be positive or negative. Thus, health result is premised on individual's believed state of health and comfortability with his or her health state (Andersen, 1995). This model is related to MSS utilisation through examination of the people's environment. The people's environment involves the residence of MSS as maternal health care facility formed and operated by government policy, human and medical resources in terms of community health extension workers, doctors, nurses and midwives as skilled birth attendants; while medical resources include the medical equipment that support safe pregnancy, child delivery and maternity. The organisation of MSS in terms of the management of the human and medical resources by the government to allow its availability and accessibility to the child bearing women. This influences the environment of the people. The environment of the people includes their cultural, social and economic conditions. The people's environment influences their population characteristics which are linked to pre-disposable characteristics, enabling factor and need of the people for MSS utilisation.

The pre-disposable characteristics of the child bearing women towards MSS utilisation include; their demography, cultural influences, stake in family decision, maternal health education among other factors can influence their utilisation of MSS. Enabling factors influencing child bearing women utilisation of MSS include; maternal information seeking behaviour towards MSS, availability of MSS, awareness level of MSS, accessibility and affordability of MSS among other factors. Need-Based factor like their felt maternal health need could influence their choice, preference and utilisation of MSS

in the stance of traditional birth attendants, presumably of higher benefits and vantages to them. These influence the health behaviour of the child bearing women. Their health behaviour involves and evolves their personal maternal health practices, health services engaged for maternity, the type of health facilities visited and health services accessed; the purpose of utilising the health services, the time interval for consultation and utilisation of both health facility and health services. Their health behaviour affects their experienced health outcomes; assessed as perceived health status, evaluated health status and consumer satisfaction gotten from utilisation of chosen health facility and health services.

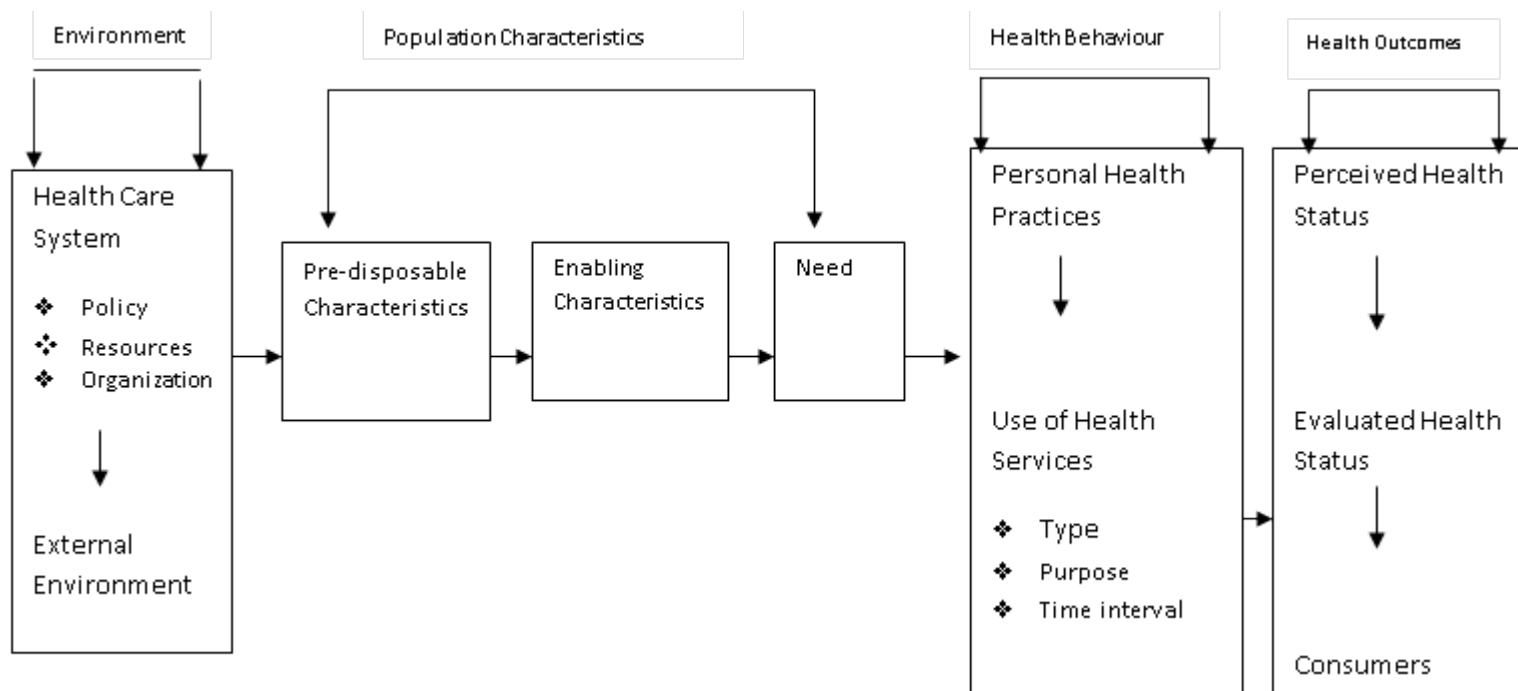


Figure 1: Schematic representation of Andersen's Model of Health Services Utilisation

Source: Andersen (1995)

3.1.3. Theory of planned behaviour

Ajzen (1991) propounded that individual behaviour is a function of intent to respond to confronted situations, with the conscious awareness of acceptable behaviour to a society. Individual behaviour depends on personal disposition towards a situation and environmental norms that subject the individual demonstrate such behaviour. Attitude towards the behaviour is defined as the individual's feelings about exhibiting a behavior in response to a situation. It is determined through an assessment of individual's belief on the likely consequences of his behaviour over a situation. Attitude can be assessed as an individual's disposition towards an event, either good or poor. It is believed by the individual as the best course of action under such circumstance. Subjective norm refers to individual's perception of whether action taken as behavioural display is acceptable to people around him or her. The opinion of people around the individual motivates his or her behaviour and attitude towards environmental issues.

Subjective norm can be defined as individual's disposition to issues and enthusiasm derived from the environment to behave in a manner thought as appropriate in any circumstance. Behaviour is influenced by intention. Intention involves a mental process an individual passes through before exhibiting a certain a behaviour. It could be a slow or fast response to issue. It usually depends on the personality of an individual. Intention of an individual is associated with behaviour and environmental subjective norms which control the perceived behaviour of an individual over issues. Assessing individuals' disposition on behavioural exhibition requires subjective norms and believes about how people they care about, will view their expressions of behaviour in question.

This theory is related to MSS utilisation concept, in that availability of MSS facility and the environmental knowledge of the women farmers on child birth practices manifested through their maternal information seeking behaviour towards MSS will influence their attitude towards MSS facility, while their subjective norm, which is their decision making right over place of child birth, will inform whether MSS is ideal for them to use or not, which will further inform their attitude towards it. Their attitude and decision making right over place of child birth, as a civil right will influence their affordability of MSS as

purchasing intention. Affordability of MSS by the women-farmers will influence their maternal health seeking behaviour, as the purchase behaviour. Their perceived behaviour of the skilled birth attendants in terms of human relations, their control on availability of the MSS facility in terms of accessibility and availability of skilled birth attendants at the MSS facility in conjunction with, their perceived effectiveness of MSS will add up to influence their utilisation of MSS.

The theories discussed help to show that mothers' health needs, behaviours, right to health choice in the family, routine health care services and expectations are critical to implications on their attitude, maternal health seeking behaviours towards MSS and utilisation of MSS.

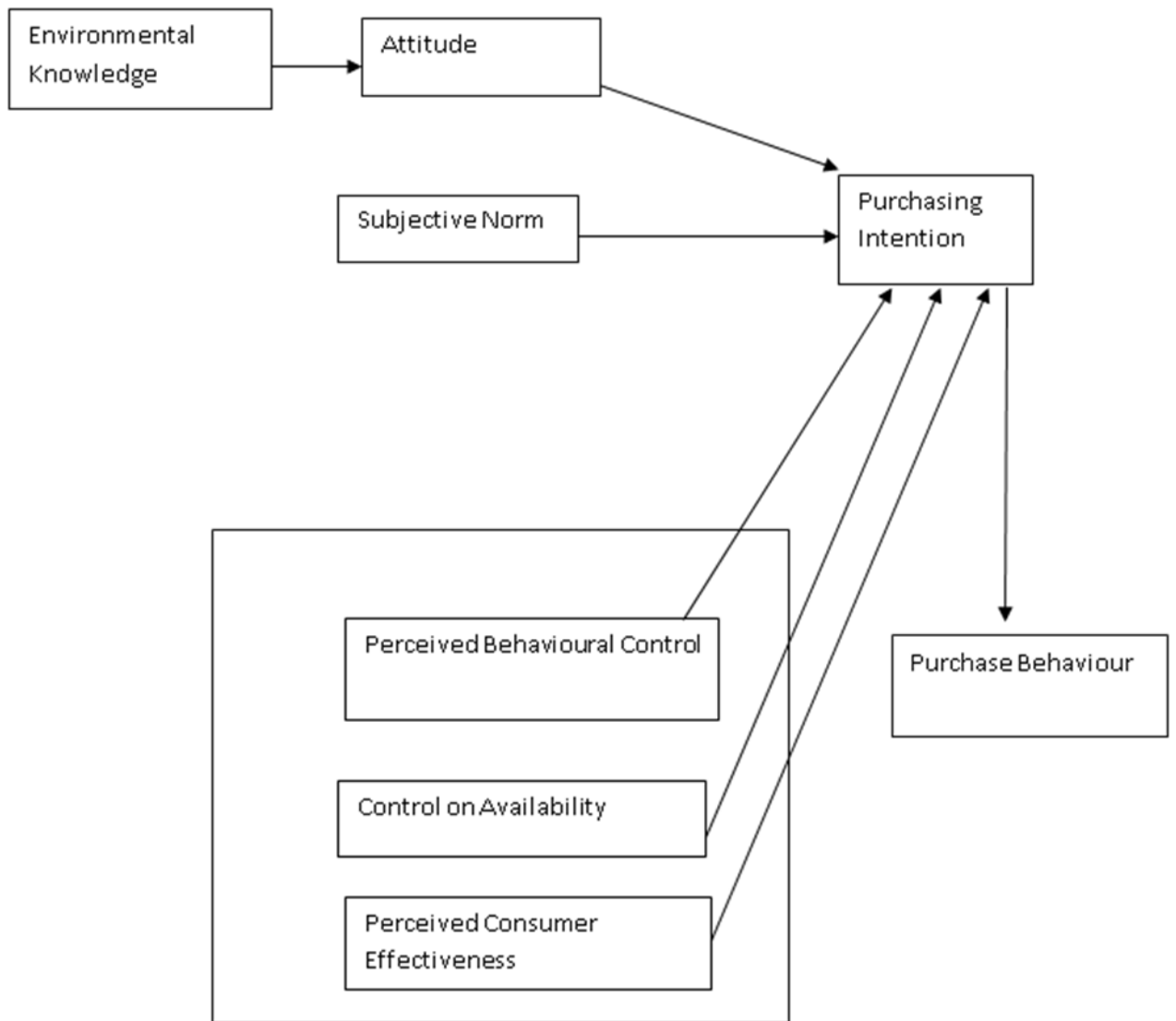


Figure 2: Schematic representation of the theory of planned behaviour

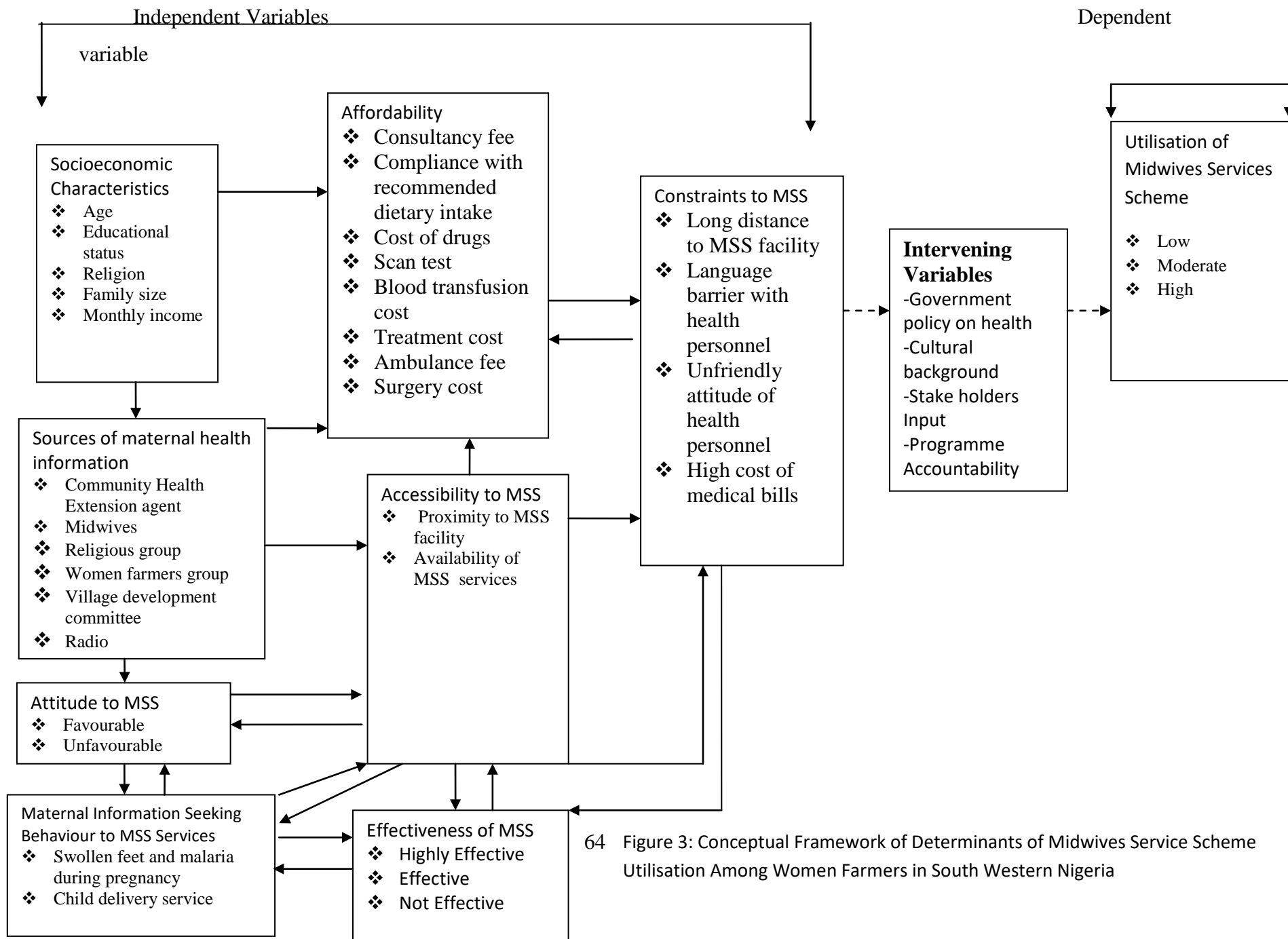
Source: Ajzen (1991)

3.2. Conceptual Framework

Miles and Huberman (1994) defined conceptual framework as a schematic representation of the association of the conceived important variables of a research undertaking. It concisely shows the understanding of the linkages of the variables constituting the objectives of a research work. All the theories discussed cannot sufficiently explain the determinants of Midwives Service Scheme utilisation among women-farmers, a conceptual framework therefore works in synergy with other observed factors derived from the combination of the theories. The conceptual framework represents a schematic representation of the inter-relationships among the variables measured in this study. This frame work is made up of the independent, intervening and dependent variables. The independent variables for this study are variables previous studies confirmed to influence determinants of need utilisation. The independent variables of this study are respondents' socioeconomic characteristics, available sources of maternal health information, maternal health seeking information behaviour towards MSS, attitude to respondents to MSS, effectiveness of MSS, accessibility to MSS, affordability of MSS and constraints to MSS utilisation.

Respondents' socioeconomic characteristics such as age, education, primary occupation, monthly income, religion, family size, membership of organisation and decision making on place of child birth are expected to influence their sources of maternal health information and affordability of MSS services. Sources of maternal health information will influence their attitude to MSS services, which conversely influences their maternal health information seeking behaviour. Maternal health information seeking behaviour will influence respondents' accessibility to MSS services. Accessibility to MSS services conversely influences effectiveness of MSS services by the respondents. Accessibility to MSS services will determine constraints to MSS services and utilisation of MSS vice versa. Affordability of MSS services conversely influences the constraints to MSS utilisation. Intervening variables are unmeasured variables seated between independent variables and dependent variables.

They are not operationalised in research work and have an indirect link between the independent variables and the dependent variables. In this study, the intervening variables include government policy on user fees, politicization of primary health care site in a community, programme accountability, degree of autonomy or stake of mothers in family decision and motivational level of MSS to work. The dependent variable is the level of utilisation of MSS services by the respondents to reduce and stop maternal mortality in the study area. The components of the MSS services utilised in this study are skilled birth attendants, antenatal care, 24 hours management service, immunisation, neonatal care, post natal care, family planning, health talk, outreach service, referral service, ambulance service, infant welfare and laboratory service for the childbearing women.



CHAPTER FOUR

METHODOLOGY

4.1 Area of study

The study was conducted in southwestern Nigeria. It is one of the six geopolitical zones of Nigeria. The zone comprises of Lagos, Oyo, Ogun, Ondo, Osun and Ekiti states. There are variations in the maternal health status of women in the various regions of the country, showing either improvement or declining state of maternal health, with marked discrepancy in the presence of health professionals in the villages and cities, topping the indicators list (Abouzahr, 1995). There are lot of villages in the southwestern zone of the country. The basic infrastructure needed to drive socioeconomic growth and health development are in poor conditions. The primary occupation of the people is farming, with great involvement of women as a key driver in the various aspects of agricultural practices, transportation and distribution to the local markets. The women are also involved in animal husbandry and petty trading activities. The people are hospitable with a settlement pattern showing many people of different Nigerian ethnic background resident in rural south western Nigeria.

However, most of the population residing in the area are of the Yoruba ethnic backgrounds. Traditional rulers and opinion leaders exert great influence on the people's response and involvement in intervention programmes. This area was chosen because of the similarity in the cultural language, climatic, environmental, political and socioeconomic factors. It has latitude of 5⁰ South, 9⁰ North and Longitude of 2⁰ and 8⁰ East, it shares boundary with Atlantic Ocean in the South, River Niger in the East, Republic of Benin in the West and north-central Nigeria in the North; likewise a land area of 78,505.17 square kilometres (National Population Commission, 2010). National census of 2006 has South West Nigeria to be populated by 27, 722, 432 people.



Plate 1: Map of Southwestern Nigeria

4.2. Study population

The population of this study consisted of all registered child bearing women farmers under the MSS programme in the Southwest, Nigeria.

4.3. Sampling procedure and sample size

A four-stage sampling procedure was adopted for this study. The first stage involved a simple random selection of 50% of the Southwestern states (Oyo, Ogun and Ekiti). Respondents were drawn from the list of registered child bearing women in MSS, onward of 2 to 9 months after child delivery in each of the selected states. Thereafter, 50% of the Local Government Areas (LGAs) that adopted MSS programme in the selected states were purposively sampled. The Local Government Areas selected were: Ibarapa East, Atisbo, Surulere and Iwajowa in (Oyo State); Ipokia, Obafemi Owode and Odogbolu in (Ogun State); Aramoko, Ode and Ikere in (Ekiti State) as 4, 3, 3 local government areas, respectively. The third stage involved random sampling of 30% of the MSS facilities in the sampled local government areas (Ibarapa East {Maya and Oke-Imale}, Atisbo{Ofiki}, Surulere {Gambari}, Iwajowa {Ijio}) in Oyo State, (Ipokia {Ijonfin}, Obafemi Owode {Ofada and Mokoloki}, Odogbolu {Mabalufu} in Ogun State and (Aramoko {Ara}, Ode {Iludun}, Ikere{Oke Emure apurposivelynd Okeyard in Ekiti State, respectively resulting in 13 MSS facilities. Proportionate sampling technique was used to select 20% of the registered women farmers in the selected 13 MSS facilities to give 207 respondents (Table 4. 1).

Table 4.1: Sampling of child bearing women farmers utilising MSS facilities

Sampled States	Adopted LGAs for MSS have 4 facilities respectively	50% of Sampled LGAs	30% of the MSS facilities in each of the sampled LGAs	Registered women farmers in the MSS facilities	20% of Sampled Women farmers
OGUN	5	3 LGAs (Ipokia, Obafemi Owode and Odogbolu)	4 Ipokia {Ijonfin}, Obafemi Owode {Ofada and Mokoloki}, Odogbolu {Mabalufu}	312	62
OYO	8	4 LGAs (Ibarapa, Atisbo, Surulere and Iwajowa)	5 Ibarapa{Maya and Okemole},Atisbo{Ofiki }Surulere {Gambari}, Iwajowa {Ijio}	416	83
EKITI	5	3 provinces (Aramoko, Ode and Ikere)	4 Aramoko {Ara}, Ode {Imojo}, Ikere{Oke Emure and Okeyard}	309	62
					Total sample size = 207

4.4 Sources and instruments of data collection

Both qualitative and quantitative methods were used to collect data from the respondents. The data were obtained with the use of structured interview schedules. It covered information on women farmers socioeconomic characteristics, maternal health information sources, maternal health seeking behaviour, their attitudes toward MSS utilisation, accessibility to MSS facilities and services, affordability of MSS, effectiveness of MSS, constraints to MSS utilisation and utilisation of MSS among the respondents. The study employed Focus Group Discussions (FGD) with the women farmers and In-depth interviews (IDIs) with Key Informants from the Village Development Committee to obtain qualitative data.

4.5 Validation of instruments

Content validity of the research instruments was achieved through interactions with the research supervisor and professionals in agricultural extension and rural development, primary healthcare services and programme evaluation. The process led to the removal of irrelevant items and inclusion of relevant items in agreement with the research objectives.

4.6 Reliability of instruments

Reliability test of the interview schedule was done with split half method analysis to determine the degree to which consistency was maintained in the variables designed for this research study. The interview schedule was conducted among 30 registered child-bearing women-farmers under MSS in Ara community in Osun State which was not part of the study area. A reliability of 0.81 was obtained as Cronbach Alpha Value, which was considered a suitable research instrument valid for the research objectives.

4.7. Measurement of variables

4.7.1 Independent variables

The independent variables of the study were measured in line with the objectives as follows;

A. Socioeconomic characteristics of child bearing women

Age: This was measured at the interval level by asking respondents to indicate their actual age in years.

Family size: This was measured at the interval level by asking respondents to indicate the actual number of people constituting their immediate families.

Religion: Respondents were asked to indicate their religion from the list provided to them with the assignment of nominal values of 1, 2, 3, respectively to Christianity, Islam and Traditional religions.

Level of education: Respondents were asked to indicate their level of education from the list provided to them with the assignment of nominal values of 1, 2, 3, 4, respectively to no formal education, primary education, secondary education and tertiary education, respectively.

Primary occupation: Respondents were asked to indicate their primary occupation from the list provided to them with the assignment of nominal values of 1, 2, 3, 4, 5, respectively to crop farming, livestock rearing, both crop farming and livestock rearing, agricultural processing and others by specifying.

Secondary occupation: Respondents were asked to indicate their secondary occupation from the list provided to them with the assignment of nominal values of 1, 2, 3, 4, respectively to agricultural processing, trading, craft making and others by specifying.

Years of farming: Respondents were asked to indicate their actual years of farming.

Monthly income: Respondents were asked to state the estimated amount they make monthly from their various occupations in Naira.

Membership of an organisation: Respondents were asked to indicate the organisation they belong to from the list provided to them with the assignment of nominal values of 1, 2, 3, 4, 5, respectively to religious group, cooperative society, occupational group, trade union and others by specifying.

Decision making on health facility for child delivery: Respondents were asked to indicate from the list provided to them with the assignment of nominal values of 1, 2, 3, respectively to husband, husband and wife agreement and personal conviction.

B. Maternal health information sources of the respondents

Available maternal health information sources of the respondents was sought through a list of sources of information on maternal health presented to respondents on a 2-point scale of yes and no with scores of 2 and 1, respectively. The frequency of information sourcing was sought through a list of channels of information on maternal health

presented to respondents on a 3- point scale of Always, Occasionally and Never with scores of 3, 2 and 1, respectively.

C. Maternal information-seeking behaviour of respondents towards MSS utilisation

Respondents' maternal information seeking behaviour towards MSS utilisation was sought through a list of statements on maternal information seeking behaviour towards MSS utilisation presented to respondents on a 3-point scale of early promptly sought, delayed sought and reliance on traditional birth attendants for maternal attention with scores of 3, 2 and 1, respectively. Minimum score of 16 and maximum score of 48 were recorded based on their responses. Mean score was obtained as 37.9 ± 7.83 and respondents with score below the mean was categorised as having low maternal information-seeking behaviour towards MSS utilisation while mean and above was categorised as high maternal information-seeking behaviour towards MSS utilisation.

D. Attitude of the Respondents to MSS Utilisation

Respondents' attitude to MSS utilisation was sought through a list of attitudinal statements on MSS utilisation presented to them on 5-point scale of strongly agree, agree, undecided, disagree and strongly disagree with scores of 5, 4, 3, 2 and 1, respectively for positively worded statements while scores of 1, 2, 3, 4 and 5, respectively were assigned for negatively worded statements of strongly disagree, agree, undecided, agree and strongly agree. Level of respondents' attitude towards MSS utilisation was determined by pooling the scores from the attitude scale, as indicated by each respondent, and respondents level of attitude towards MSS utilisation was classified as favourable (\geq mean) and unfavourable ($<$ mean). The mean score of 64.16 ± 13.87 was obtained; minimum and maximum scores obtainable were 55 and 99, respectively.

E. Accessibility to MSS Facilities and Services

Respondents' accessibility to MSS was sought through a list of statements on accessibility to MSS presented to the respondents on a three point scale of always, occasionally and never with scores of 2, 1 and 0, respectively. Respondents level of accessibility to MSS was determined by pooling the scores from the accessibility scale as indicated by each respondents, the mean score of 22.29 ± 7.92 was obtained and used to categorise respondents into high and low levels of accessibility to MSS facilities and

services. The minimum and maximum scores obtainable were 13.00 and 34.00, respectively.

F. Affordability of MSS

Respondents' affordability of MSS was sought through a list of statements on affordability of MSS presented to them on a 3-point scale of always, occasionally and never with scores of 2, 1 and 0, respectively. Level of affordability was determined by pooling the scores from the affordability of MSS scale as indicated by each respondents, the mean score of 23.13 ± 6.04 was obtained and used to categorise respondents into high and low levels of affordability of MSS. The minimum and maximum scores obtainable were 12.00 and 32.00, respectively.

G. Effectiveness of Midwives Service Scheme

Effectiveness of MSS utilisation by the respondents was measured on a 3-point scale of highly effective, effective and not effective with scores of 3, 2 and 1, respectively. Level of effectiveness of MSS was determined by pooling the scores from the effectiveness scale as indicated by each of the respondents, the mean score of 17.63 ± 5.34 was obtained and used to categorise respondents into high and low levels of effectiveness of MSS. The minimum and maximum scores obtainable were 10.00 and 30.00, respectively.

H. Constraints to MSS Utilisation

Constraints faced by respondents in MSS utilisation were measured on a 3-point scale of serious constraint, mild constraint and not a constraint with scores of 3, 2 and 1, respectively.

I. Dependent variable (utilisation of midwives service scheme (MSS))

Respondents' utilisation of MSS was measured on a 3-point scale of always, rarely and never with scores of 2, 1 and 0, respectively. Level of utilisation was determined by pooling the scores from the utilisation scale as indicated by each of the respondents, the mean score of 46.42 ± 10.80 was obtained and used to categorise respondents into high and low levels of utilisation. Minimum score of 30 and maximum score of 72 were recorded based on their responses.

4.8 Analysis of Data

Data were described with the use of descriptive statistics such as the means, frequencies and percentages. Tests of hypotheses were carried out for hypothesis 1 using Chi-square

and Pearson Product Moment Correlation (PPMC). Hypothesis 2 to 5 were tested using PPMC, while hypothesis 6 was tested using Analysis of variance (ANOVA) and hypothesis 7 was tested using multiple linear regression model.

CHAPTER FIVE

RESULTS AND DISCUSSIONS

This chapter reports and the interpretation of the analyses of the research hypotheses using specific scientific tools in agreement with the research objectives, as significant findings of the research problem investigated.

5.1 Socioeconomic characteristics of respondents

5.1.1 Age of respondents

The mean age, 34.97 ± 8.20 , as shown in Table 5.1, confirms that women farmers in the study area were in their young adulthood and economically active age. This implies that majority of the respondents were in their productive and child bearing age with some level of vulnerability to maternal death, which is expected to awaken their consciousness to utilising safe maternal health in the stance of midwives service scheme. This finding is in consonance with the report of Vos, Flaman, Naghavi, Loano and Michaud *et al.* (2012) which reveal that young childbearing women are more at risk of maternal death.

5.1.2 Family size

Table 5.1 reveals that the average family size was 6.70 ± 1.50 members. About 51.7% had an average of 7-9 family members. The average family size across the selected area was relatively large in size. This implies high childbirth record, with little or low safe contraceptives use, among the rural women-farmers. This result therefore suggests that women farmers place high premium on child birth, as a means of driving farm labour in the study area. The result is consistent with Ayoade (2012) which reported a family size of more than 7 members among farm families in Oyo State, thereby providing family labour for agricultural operations.

5.1.3 Primary occupation

The study further reveals in Table 5.1 that more than half (56.0%) of the women farmers were crop farmers and 36.7% were processors. This is further supported by the report of Ayoade (2012) that women are well involved in food production to sustain their families' welfare.

5.1.4 Secondary occupation

Table 5.1 further reveals that more than half (58.0%) of the women farmers engaged in trading of agricultural commodities and forest products during on-season and off-season as secondary occupation. This implies that secondary occupation could offer additional sources of revenue to the respondents, improve their opportunity of having control over free decision and responsibility to utilise safe maternal health programme of MSS. Secondary occupation shows an attribute of livelihood diversification to enhance the economic lives of the respondents, freedom from coercion, discrimination and violence in the family, strengthen their access to appropriate quality health care as offered by MSS and enhance their affordability and utilisation of the MSS facility and its services. This finding is in consonance with Edna, Mathew and Adesope (2007) who reported that agricultural practices cannot effectively meet the social and economic needs of the subsistent farmers; secondary occupations therefore appropriately buffer their farm income.

5.1.5 Years of farming

The study assessed the years of farming in Table 5.1, to be an average of 22.14 ± 9.04 years. This is an indication that the respondents were not only involved in farming activities but were also well experienced. The years of farming reflect an index of farming experience. Women farmers with longer years of farming experience stand better chances of having better farming, farming risk management skills and knowledge of profitable farming. Nwaobiola and Onumadu (2010) work supported this finding that farming experience advances the productivity of farmers through open-mindedness to technology adoption, which in the same vein improves their farm yield. The finding is also in consonance with the findings of Nwaogwu, Echebiri and Eluu (2016) who reported that farming experience aids farmers' timely innovation adoption and enhances the profitability of farm venture.

5.1.6 Monthly income

The mean monthly income of ₦22,014.43±13.08 as shown in Table 5.1 confirms that women farmers in the study area were small holder farmers with low income even with their complementary earnings from off-farm and non-farm activities as secondary occupation. This indicates that the economies of primary farming operations and combined secondary occupations were small, yielding low monthly income, which could limit respondents' utilisation of MSS. This could reduce their financial commitment to safe maternal health through MSS with the demands of their social and economic lives. This finding is supported by Adamu (2001) who reported that family income is an indicator to utilise modern health care facilities, hence it predicates the financial capacity and responsibility of bearing the cost of medical service.

5.1.7 Membership of Organisation

Table 5.1 reveals that 44.4% of the respondents across the selected states belonged to cooperative group, while 50.2% belonged to occupational group. This means that the women farmers are privileged to receive and share information on agricultural production and safe maternal health through these social organisations. Also, membership in occupational group conforms with the apriori expectation of providing women farmers the opportunity to share maternity experience, needs for desired family experience and convictions on MSS as the best alternative for safe maternal health. The lesser number of women farmers in cooperative society may not be unconnected with the fact that respondents did not have strong faith in cooperative association possibly because of inadequate record keeping, poor accessibility to funds and inefficient loan repayment.

This finding is supported by Robison, Schmid and Marcelo (2002) who asserted that social associations lead to transfer of ideas and open opportunities for people who advance social assistance for better livelihood. The finding is also in consonance with Hagedoorn (2006) who reported that social relationships increase awareness of better practices and making informed decisions on recognised needs. This finding also corroborates Adekoya (2014) who asserted that membership of associations promotes symbiotic relationship and understanding among farmers, which often result into dedication to assist each other.

Table 5.1: Distribution of respondents by socioeconomic characteristics in the study area

Socioeconomic Characteristics	Frequency (207)	%
Age		
≤20 years	7	3.4
21-30 years	54	26.1
31-40 years	82	39.6
41-50 years	61	29.5
Above 50 years	3	1.4
	$\bar{x} = 34.97 \text{ years} \pm 8.20$	
Family size		
1-3	9	4.3
4-6	91	44.0
7-9	107	51.7
	$\bar{x} = 6.70 \text{ persons} \pm 1.50$	
Primary Occupation		
Crop Farming	116	56.0
Livestock Rearing	10	4.8
Crop Farming & Livestock	5	2.4
Agricultural Processing	76	36.7
Secondary Occupation		
Agricultural Processing	71	34.3
Trading	120	58.0
Craft Making	16	7.7
Years of farming		
Less or equal 10 years	6	2.9
11-20 years	53	25.6
21-30 years	99	47.8
31-40 years	40	19.3
40-50 years	9	4.3
	$\bar{x} = 22.14 \text{ years} \pm 9.04$	
Estimated Monthly Income		
≤ ₦20,000	103	49.8
₦21,000-₦40,000	85	41.1
₦41,000-₦60,000	17	8.2
₦61,000-₦80,000	2	1.0
	$\bar{x} = ₦22,014.43 \pm 13.08$	
Membership of Association		
Cooperative Society	92	44.4
Occupational Group	104	50.2
Religious Group	11	5.3

Field Survey, 2017

5.1.8 Religion

Religion is reported in Figure 4 as an integral part of people's way of life, premised on belief, custom, moral and habits that sharpen the minds of people in the face of various life events and challenges, transmissible from generation to generation. All the three main religion groups were represented in the study area, with the result, reflecting that most (67.1%) were Christians, 29.5% were Muslims and very few (3.4%) of the respondents were traditionalists. This implies that religion among the respondents is a powerful tool and endorsement platform to seek preventive health care through MSS utilisation, as it does not contradict the utilisation of MSS services. It rather provides a social carriage of building trust and mental capacity in its members to utilise MSS for safe child birth. It is worthy to note that Christian religion was the most practised among respondents in Ekiti from the IDI session with the village committee development secretary of Orun Ekiti which reads:

'The two main religions here are Christianity and Islam, but Christians have the largest number of worshippers. We have very few traditionalists in this town because many families now embrace Christianity as a better way to reach GOD. In spite of the difference in our religion, we exist together and live in peace and harmony. Our religion does not prevent the use of MSS for maternal care by our women. We are not free from disputes, rancor and conflicts as humans with imperfections, the traditional council settles disputes brought to their notice among our people amicably, some people engage police and court of law to settle their differences. The traditionalists are very few in number. Our religions support maternal safety of our wives and we embrace the use MSS. I am a traditionalist being a chief and part of the custodians of the culture and history of Orun Ekiti. I am also a Christian, an Anglican member' (Village Committee Development Committee leader of Orun Ekiti).

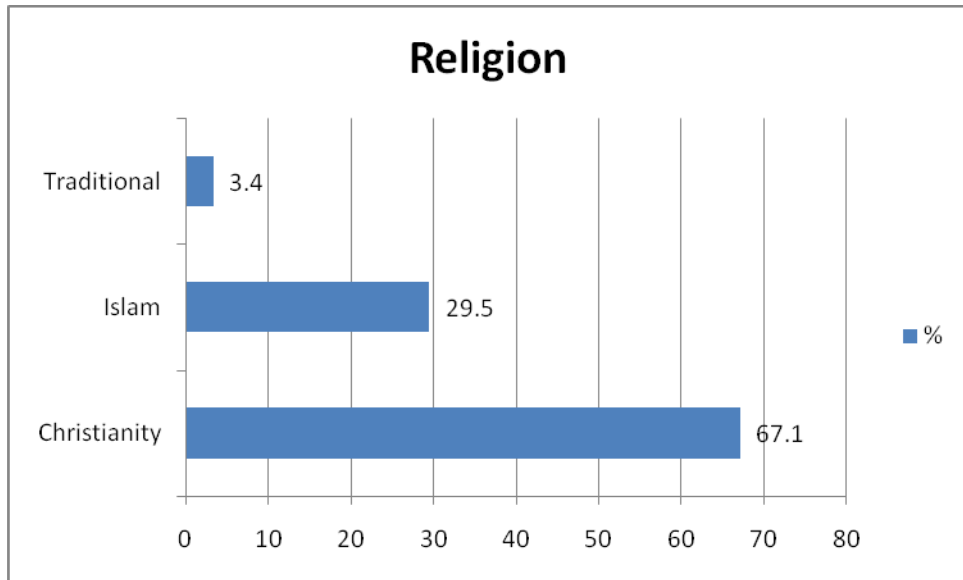


Figure 4: Percentage distribution of the respondents' religion

5.1.9 Educational status of respondents

Education has a strong influence of informed decisions about people's use of information on health, tapped from their living environment for knowledge and capacity building on improved living conditions. The study reveals in Figure 5, that 44.4% of the respondents had no formal education, while more than half (55.6%) had a form of formal education across the study area. This implies that many of the women farmers had a level of formal education. This could be connected to parents in the selected area, giving at least primary education to many of their girl children before giving them out to men in marriage. This infers that educated women are more likely to access safe maternal health information from diverse sources, disseminate to others and use, just in the case of MSS for mother and child safety.

This result negates the assertion of Oluwadare and Jegede (2012) who reported that daughters are restricted to demeaning traditions that deny them access to schooling, financial resources and making independent decisions on their life aspirations. This finding is also corroborated by the assertion of Fasokun, Katahoire and Oduaran (2008) that education guarantees enlightenment and liberty of people of all ages from ignorance and deprivations of human right, particularly women as it offers them capacity and free choice to make appropriate decisions on life issues.

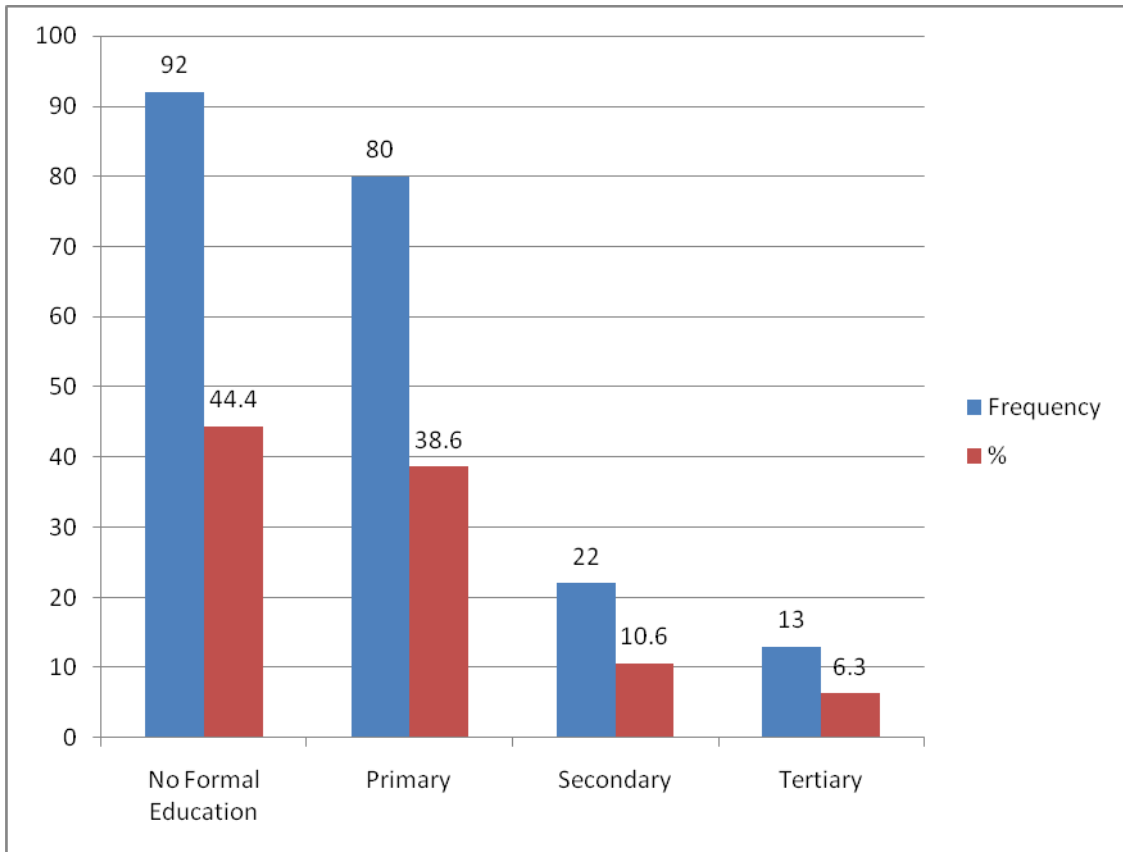


Figure 5: Percentage distribution of respondents' educational status

5.1.10 Decision making on facility for childbirth

The study reveals in Figure 6, that husband decided the facility for child birth (62.3%) across the selected study areas, while 27.1% of the facility used by women farmers for childbirth was decided by husband and wife. This implies that husband influenced respondents' decision on health facility for childbirth and largely owned responsibility on the decision concerning facility for child delivery. This shows that the respondents have little or no right on decisions related to their reproductive health and delivery of their unborn children, plausibly to gender inequality and non-equitable gender relations in the study area. Thus, women farmers' insufficient decision making power on their maternal health and choice place of child delivery can limit their access to MSS and the utilisation of MSS, which could negatively affect maternal health outcomes in the study area.

WHO (2005) supported this finding that women's decision on their reproductive health is subject to consent and approval of their husbands. Division of the Advancement of Women (1999) also corroborated this finding that women's place in the society is often deprivation and denial of access to asset needed for independent life.

FDG excerpts with men in the Village Development Committee at Orun Ekiti supported this finding that

“Men are the heads of their families and decisions concerning all members of the family are principally taken by men. The same thing applies to MSS utilisation in families, but for efforts of the group in talking with the men to allow the participation of their pregnant wives in the MSS programme with proofs of many safe children deliveries in our MSS centre for over eight years now, it has been allowing more registration of pregnant women in the programme and utilisation of MSS in our community.”

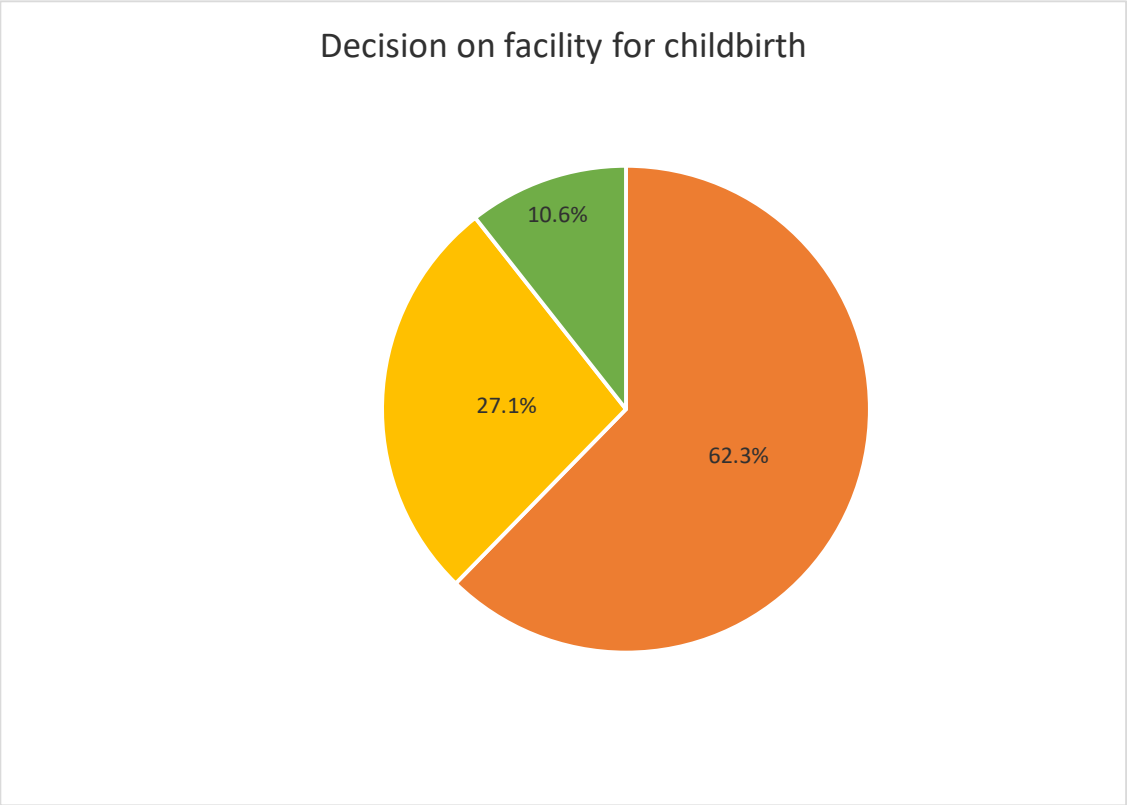


Figure 6: Percentage distribution of respondents on decision making concerning facility for childbirth

5.2 Maternal health information sources available to the respondents

5.2.1 Sources of respondents' maternal health information

Table 5.2 shows that community health extension workers (96.1%) were the major source of maternal health information to the respondents. This was buttressed in the FGD reports that respondents preferred and used community health extension workers most for their maternal health information

“because we usually hear of the best and safest child birth practices, children care and other maternal health information and the importance of adherence to them through community health extension workers, who don't get tired of visiting our homes”.

Midwives (85.0%) were also an important source of maternal health information to the respondents. This indicates that skilled birth attendants are crucial to MSS utilisation among the respondents, as they attracted more attention of the respondents, plausibly by conveying intended MSS messages better and clearer to the respondents. Radio (77.8%) was another form of medium for sourcing maternal health information by the respondents. In the same vein, Village Development Committee (75.8%) was highly sourced for maternal health information by the respondents. These imply that radio and Village Development Committee were used by the respondents to meet their maternal health needs. These show that both media sources had strong influence on the respondents' disposition to, and adoption of safe maternal health practices.

Many (62.3%) of the respondents sourced traditional birth attendants for their maternal health information. This means that maternal health needs for many of the respondents were sourced and met by traditional birth attendants, possibly because they were more conforming with their societal norms and values. These show that a variety of media were sourced by the respondents for appropriate maternal health information on their maternal health needs. Babalola and Fatusi (2009) supported this finding that sourcing maternal health through mass media promotes safe motherhood and corrects existing misconception surrounding reproductive health in the society.

Table 5.2: Distribution of respondents based on sources of maternal health information (N= 207)

Sources of maternal health information	Frequency	(%)	Rank
	207		
Community Health Extension Workers	199	96.1	1st
Midwives	176	85.0	2nd
Radio	161	77.8	3rd
Village Development Committee (VDC)	157	75.8	4th
Traditional birth attendants	129	62.3	5th
Friends	32	15.5	6th
Religious Group	13	6.3	7th
Occupational Group	10	4.8	8th
Television	8	3.9	9th
Fliers	4	1.9	10 th

Field survey, 2017

5.3.1 Respondents' maternal health seeking behaviour

Table 5.3 reveals that swollen feet and malaria during pregnancy were delayed in seeking maternal information (63.8%) through MSS. This indicates that respondents did not immediately seek MSS attention when they experienced swollen feet and malaria during pregnancy, plausibly because they needed to seek the consent of their husbands and relatives before consulting MSS for maternal health information and attention on such maternal experience. Less than half (42.5%) of the respondents relied on traditional birth attendants for maternal health information on adequate dietary intake during pregnancy. This suggests that the respondents depended on traditional birth attendants for adequate dietary intake information during pregnancy, probably because they were more accessible, acceptable and conforming with the socio-cultural ways of life of the respondents. This finding is supported by Okigbo and Eke (2015) that societal and traditional circumstances limit child bearing women's right to orthodox health.

Majority (90.3%) of the respondents promptly sought MSS for management of pregnancy experience posing threat to their survival. This indicates that respondents understood certain danger signs of pregnancy complication and swiftly responded to it through seeking the attention of skilled birth attendants in MSS facilities. Most (85.5%) of the respondents promptly sought MSS for child delivery. It can be inferred that large proportion of the respondents quickly sought the attention of skilled birth attendants at the MSS facilities for safe child delivery. Over half (50.7%) of the respondents delayed seeking the assistance of skilled birth attendants at the MSS facilities on treatment of their infants on malaria, cough and diarrhea. This shows that respondents likely gave first aid care to their infants immediately they sensed ill health conditions in them through maternal experience or courage before going to the MSS facilities on non-improvement in health conditions of their infants for appropriate diagnosis and medication.

Majority (91.8%) of the respondents promptly sought vaccination against and treatment of tetanus through MSS. This implies that women farmers gave priority to their survival as opportunity to take care of their family and enjoy the benefits of motherhood by

promptly seeking safe maternal assistance on immunisation against tetanus. Substantial percentage (61.4%) of the respondents delayed counseling on child spacing through MSS. This means that counseling on child spacing was not taken seriously by the respondents as many of them did not attend ante natal clinics regularly where pregnant women are counseled on the benefits of child spacing to safe motherhood. This finding is supported by Oladapo *et al.* (2008) and National Population Commission and ICF International (2013) that antenatal care service is poorly utilised in the country.

Also, 62.8% delayed seeking family planning service among the respondents. This implies that many of the women farmers did not place importance on family planning as they customarily believed that every woman is possibly destined by God to have a certain number of children and preventing this through family planning could result to committing sin. This finding is supported by Ekong (2003) who reported that majority of the rural residents that dominate the Nigerian populace produce many children without conscious child care. The finding is also in line with Dutze and Mohammed (2006) who found that villagers who are mostly illiterates have high fertility and child birth rates contributing to their poverty state. Amazgio, Silva, Kaufnab and Obikeze (1997), Odimegwu (1999), and Babalola, Folda and Babayaro (2008) corroborated this finding that the reason for low family planning in most rural places is due to low safe maternal health enlightenment among the people.

Over half (52.2%) delayed seeking appropriate diagnosis on ailing conditions through MSS. This suggests that respondents could either took first aid care on assumed ailing conditions by self-medication and later went to MSS facilities when ailing conditions worsen for appropriate diagnosis. Also, 53.6% of the respondents delayed treatment on their ailing conditions, which might be as a result of self-medication or search for money by relatives to fund the treatment cost which took some time to raise. Over half (55.6%) of the respondents relied on traditional birth attendants for advice on when to wean their babies and introduce composite food to them. This shows that more than half of the respondents depended on traditional birth attendants for advice on when to wean their babies and introduce composite food to them, tenably to the wide spread indigenous

knowledge of child care in the study area, taught and learnt by observation as cultural delicacies and heritage. Jennings and Krannich (2013) corroborated this finding that local midwives shelter care, love and help advance family rites as customary values in rural areas. Hence, assistance given to women during pregnancy and childbirth plays important role in the choice of midwives preferred by the childbearing women.

Majority (93.7%) of the respondents promptly sought vaccination against and treatment of diseases like measles and pneumonia in infants through MSS. This indicates that women farmers gave priority to the survival of their infants by promptly seeking safe maternal assistance for the survival of their infants, which would transit to dependable cheap family labour in the nearest future. Large proportion (73.4%) promptly sought the assistance of skilled birth attendants on treatment of toddling children injuries at the MSS facilities. This suggests that respondents were well concerned about bringing their injured children to proper shape, so as to avoid any limitation such injuries could cause their children from realizing their maximum potentials in life through the help of skilled birth attendants.

Majority (93.2%) of the respondents sought survival interventions like Vitamin A and deworming promptly for their infants. This indicates that majority of the respondents gave high premium to child safety through vaccination of their children against diseases and preventing them from worms' attack that could limit their growth and life potentials through prompt consult of MSS. These findings are consistent with that of Anastasia and Marie (2006) who found that women's search for reproductive health depends on its reach and publicity to them, which aid their capacity to utilise. Also, the findings are supported by Peters, Garg, Bloom, Walker, Brieger *et al.*, (2008) who reported that the search for maternal health involves the influence of socioeconomic levels of the people and social institutions in their communities.

Table 5.3: Distribution of respondents based on maternal health information seeking behaviour

Maternal Health Information Seeking Behaviour	F (207)	(%)	\bar{x}	Rank
Vaccination against and treatment of diseases like measles and pneumonia in infants			2.94	1st
Promptly Sought through MSS	194	93.7		
Delayed Sought through MSS	13	6.3		
Reliance on TBAs	0	0.0		
Child survival interventions like Vitamin A and de-worming			2.93	2nd
Promptly Sought through MSS	193	93.2		
Delayed Sought through MSS	12	5.8		
Reliance on TBAs	2	1.0		
Immunisation of mother against tetanus			2.91	3rd
Promptly Sought through MSS	190	91.8		
Delayed Sought through MSS	16	7.7		
Reliance on TBAs	1	0.5		
Management of pregnancy experience posing threat to your survival			2.89	4th
Promptly Sought through MSS	187	90.3		
Delayed Sought through MSS	19	9.2		
Reliance on TBAs	1	0.5		
Child delivery			2.86	5th
Promptly Sought through MSS	177	85.5		
Delayed Sought through MSS	30	14.5		
Reliance on TBAs	0	0.0		
Treatment of infant ailments like malaria, cough and diarrhea			2.47	6th
Promptly Sought through MSS	100	48.3		
Delayed Sought through MSS	105	50.7		
Reliance on TBAs	2	1.0		
Diagnosis of ailing conditions in mothers			2.44	7th
Promptly Sought through MSS	96	46.4		
Delayed Sought through MSS	108	52.2		
Reliance on TBAs	3	1.4		
Treatment of mother's ailing state			2.43	8th
Promptly Sought through MSS	92	44.4		
Delayed Sought through MSS	111	53.6		
Reliance on TBAs	4	2.0		
Treatment of infant injuries			2.23	9 th
Promptly Sought through MSS	51	24.6		
Delayed Sought through MSS	152	73.4		
Reliance on TBAs	4	2.0		
Swollen feet and malaria during pregnancy			2.14	10 th
Promptly Sought through MSS	52	25.1		
Delayed Sought through MSS	132	63.8		
Reliance on TBAs	23	11.1		
Counseling on child spacing			1.97	11 th
Promptly Sought through MSS	36	17.4		
Delayed Sought through MSS	127	61.4		
Reliance on TBAs	44	21.3		
Family planning			1.92	12 th
Promptly Sought through MSS	29	14.0		
Delayed Sought through MSS	130	62.8		
Reliance on TBAs	48	23.2		
Adequate dietary intake during pregnancy			1.80	13 th
Promptly Sought through MSS	47	22.7		
Delayed Sought through MSS	72	34.8		
Reliance on TBAs	88	42.5		
Advise on when to wean a baby and introduce composite food to the baby			1.66	14 th
Promptly Sought through MSS	48	23.2		
Delayed Sought through MSS	44	21.3		
Reliance on TBAs	115	55.6		

Field Survey, 2017

5.3.2: Level of respondents' maternal health information seeking behavior in MSS facilities

Table 5.4 reveals that maternal health seeking behaviour of the respondents in MSS facilities was low across the study area, with 53.2% having a mean score of less than 38, belonging to the low category. This indicates that the respondents' maternal information seeking behaviour in MSS was low despite many of them, having a form of formal education and contacts with community health extension workers in the earlier reports presented in Figure 5 and Table 5.2, respectively. This shows that women farmers' maternal information seeking quest for accessibility, receptivity and utilisation of preventive maternal death programme of MSS is not based on education alone as a mediator but message compatibility with the environment.

This finding corroborates Addai (2000) who reported that in most Nigerian villages, reproductive health care is carried out by professional and local midwives; hence choice and preference depend on accessibility, care and cost at which it is offered to child bearing women. Also, the finding is consistent with that of Zhao, Kulnane, Gao and Biao (2009) that the right maternal information is crucial to safe motherhood and wellbeing of women.

Table 5.4: Distribution of respondents based on level of their maternal health information seeking behaviour in MSS facilities

Level of respondents maternal health seeking behaviour towards MSS utilization (%)	Minimum	Maximum	Mean	SD
Low	20.00	48.00	37.93	7.83
High				

5.4.1: Respondents attitude towards MSS utilisation

Table 5.5 shows that majority (76.3%) of the respondents agreed that MSS offers effective means to safeguard problems associated with conception and child bearing. This depicts that respondents had favourable disposition towards MSS utilisation with its solution options to conception and child birth issues. Majority (75.8%) of the respondents indicated that MSS offers near precise, if not precise expected day of delivery for appropriate preparedness. This implies that the precision and near accuracy of child birth date through utilisation of MSS poses favourable attitude among respondents to its utilisation. Also, majority (86.5%) of the respondents established that MSS provides reliable facilities and equipment to support safe child delivery. This shows that the provision of facilities and equipment offered by MSS, in supporting and ensuring safe child delivery favourably disposes the women farmers to the utilisation of MSS.

Furthermore, 51.7% of the respondents disagreed that the ambulance service provided for referral cases to the general and tertiary hospitals is always functional. This may be attributed to non-priority of functional ambulance service by the state and local governments as a key health infrastructure and a critical component of harnessing the maternal health safety potentials of MSS utilisation by the users. This indicates that many of the respondents had unfavourable attitude towards the utilisation of MSS, with regards to poor ambulance service delivery that pose maternal risk to them in the advent of emergency situation. Majority (80.7%) of the respondents disagreed that MSS hardly provides opportunity for having safe maternal health information not received well before marriage, and formerly from patronage of traditional birth attendants. This implies that majority of the respondents had opportunity of having safe maternal health information through engagement with MSS on what they never knew before their contact with MSS, which makes MSS suitable for their utilisation. Moreover, 75.4% of the respondents disagreed that MSS rarely offers proper diagnosis of ailment and treatment of diseases in pregnant and nursing mothers. This shows that a lot of the women farmers indicated that MSS provides the right diagnosis and treatment on their sick conditions, which aid their utilisation of MSS. These findings nullified the assertion of Bridgen (2004) that health intervention programmes do not achieve its mandate of positive public attitudinal change, as only few people accept and utilise them afterwards.

Table 5.5: Distribution of respondents by attitude towards MSS utilisation

ITEMS	SA (%)	A (%)	U (%)	D (%)	SD (%)	\bar{x}
Effective means to safeguard problems associated with gestation and child bearing	23.2	76.3	0.5	0.0	0.0	4.23
MSS offers near precise (if not precise) expected day of delivery for appropriate preparedness	24.2	67.1	0.0	8.7	0.0	4.21
MSS provides reliable facilities and equipment to support safe child delivery	13.5	73.9	0.5	12.1	0.0	4.11
MSS has significantly reduced cases of life threatening pregnancy complication causes in child bearing and pregnant women	17.9	68.1	0.0	0.5	14.5	4.01
MSS offers satisfactory food supplements that are deficient in pregnant and nursing mothers through essential drugs	16.9	81.2	0.0	1.4	0.5	4.07
MSS has been effective in child spacing among child bearing mothers	8.7	33.8	2.9	48.8	5.8	2.90
MSS seems too complicated in repeated scans, antenatal and postnatal meetings for safe motherhood.	7.2	64.7	0.0	25.6	2.4	3.52
MSS hardly provides opportunity for having maternal health information not received well before marriage and formerly from patronage of traditional birth attendants by affected mothers	5.8	9.7	0.0	80.7	3.9	2.36
MSS rarely offers proper diagnosis of ailment and treatment of diseases in pregnant and nursing mothers	6.8	13.5	0.0	75.4	4.3	2.48
Immunization for mother and child against diseases under MSS is safe	8.7	84.1	0.0	4.8	2.4	3.96
MSS involves many meetings with repetitive health talks to emphasize compliance and adherence to safe maternal health practices	11.6	73.9	0.0	9.7	4.8	3.76
The ambulance service provided for referral cases to general hospitals is always functional	5.8	10.1	0.0	51.7	32.4	2.08
MSS seems absolutely unsafe from adverse child bearing outcomes	9.7	38.6	0.0	44.4	7.2	3.00
MSS seems to abolish traditional ethos of our family rites during pregnancy and child delivery which could extinct our tradition	14.0	12.1		69.6	4.3	2.57
MSS seems not to prevent malaria during pregnancy as claimed	9.2	29.4		57.9	3.4	2.85
MSS offers family planning service that reduces the number of children God plans for an individual.	9.7	47.8		39.6	2.9	3.26
MSS guarantees availability of SBAs during labour, which is safe for child delivery	10.6	84.5		2.4	2.4	4.03
MSS increases financial expenditure of homes to recommended drugs and maternal nutrition during pregnancy and after child birth	9.2	81.2		8.7	0.9	3.89
Use of machines like ultra-scans offer more health hazards than benefits to pregnant women	8.7	8.7	1.4	79.7	1.4	2.55
MSS provides for the best time to wean a child and introduce composite diets to the child	7.2	31.4	0.0	60.0	1.4	2.84
SBAs do not take proper care of the navel as done by traditional birth attendants	6.3	61.4	0.0	30.4	1.9	3.40
MSS puts pregnant women through necessary physical examinations like blood pressure test.	9.2	66.2	0.0	22.2	2.4	3.43
SBAs often make false referral cases to scare pregnant women unnecessarily to make money from them	7.7	3.4	0.0	85.5	3.4	2.29
MSS could make a woman infertile with recommended contraceptives for family planning	9.2	35.3	0.0	52.7	2.9	2.97
MSS provides appropriate treatment of mother and child diseases	8.2	85.0	0.0	4.8	1.9	3.96
SBAs give health talks that reduce psychological stress, emotional stress and anxiety to pregnant women	9.2	87.9	0.0	1.9	0.9	4.04

5.4.2. Level of respondents' attitude towards MSS utilisation

The result on Table 5.6 reveals that more of the respondents (54.1%) had favourable attitude towards MSS utilisation, with a mean score of 64.2, belonging to this category. This may be as a result of positive factors arousing and widening respondents' interest in the utilisation of MSS. This finding is supported by Nwachukwu and Obasi (2008) who reported that the strength to utilise orthodox health by women depends on communal maternal health knowledge and practices of its handlers, as health care givers.

5.5.2. Level of respondents' accessibility to MSS

Table 5.8 reveals that more respondents (53.6%) had low access to MSS, with a mean score of 22.3. This implies that MSS preventive maternal death programme was not well accessed by the respondents, in terms of facilities and services rendered to users. This shows a limitation to the utilisation of MSS by the respondents. This result is similar with the opinion of Mekonnen and Mekonnen (2002) that means to health service is crucial to its utilisation.

Table 5.6: Distribution of respondents based on the level of their attitude towards MSS

Levels of attitude toward MSS	%	Minimum	Maximum	Mean	SD
Unfavourable	53.2	55.00	99.00	64.16	13.87
Favourable	46.8				

Source: Field Survey, 2017

**Table 5.8: Distribution of respondents based on the level of accessibility to Midwives
MSS**

Levels of accessibility to MSS	%	Minimum	Maximum	Mean	SD
Low	53.6	13.00	34.00	22.29	7.92
High	46.4				

Field Survey, 2017

5.5.1: Respondents' accessibility to MSS

Table 5.7 reveals that the most accessible services of MSS to the respondents included 24 hours qualified management service at the MSS facility ($\bar{x} = 2.11$), presence of skilled birth attendants at the MSS facility ($\bar{x} = 2.09$) and availability of neonatal care for infant mothers ($\bar{x}=2.01$). The least accessible MSS services to the respondents were laboratory service at the MSS facility ($\bar{x} = 0.26$), provision of ambulance service for referral cases to general/tertiary hospitals ($\bar{x} = 0.82$) and essential medical equipment and drugs readily available for pregnant women and nursing mothers in the MSS facility ($\bar{x} = 0.99$). The implication of these is that 24 hours qualified management of MSS, presence of SBAs at the MSS facilities and the delivery of neonatal care service positively influenced the utilisation of MSS among the respondents. Respondents had difficulty in accessing laboratory services as they were far from the MSS facilities around them. This makes scanning for position and development of babies in the womb difficult to ascertain; likewise, respondents' health problems are difficult to identify appropriately, and offer of diagnosis, together with treatment by the skilled birth attendants might be wrong. Hence, child-bearing women are vulnerable to maternal death with inadequate access to laboratory services.

Ambulance service for referral cases was equally very difficult to utilise by the respondents, due to poor availability and functionality in the MSS facilities. Also, essential medical equipment and drugs were most times not available for purchase and utilisation by the respondents. These could lead to dis-interest and poor utilisation of MSS among the respondents. These findings are supported by Peters *et al.* (2008) that the means to healthcare services involve medical equipment employed to drive utilisation by the people.

Table 5.7: Distribution of respondents' accessibility to MSS services and facility

Items	Always (%)	Occasionally (%)	Never (%)	\bar{x}	Rank
There is 24 hours qualified management service at the MSS facility	83.1	16.9	0.0	2.11	1st
There is the presence of skilled birth attendants at the MSS facility	8.21	17.9	0.0	2.09	2nd
Availability of Neonatal care to infant mothers	59.9	40.1	0.0	2.01	3rd
Attention of skilled birth attendants to complaints and advice on pregnancy	76.3	23.7	0.0	1.90	4th
Health talk between the SBAs and the pregnant women on safe child birth	55.6	43.5	1.0	1.88	5th
Treatment for mother and child on ailing conditions	55.5	41.1	3.4	1.86	6th
I enjoy antenatal care at the MSS facility	49.3	49.8	0.9	1.82	7th
MSS facility is within my reach and use	41.1	58.9	0.0	1.80	8th
I enjoy post natal care at the MSS facility	42.5	55.5	2.0	1.79	9th
Family planning service	35.3	61.8	2.9	1.32	10th
Referral service for emergency and complicated cases	21.7	77.3	1.0	1.21	11th
Immunisation service for both mother and child at the MSS facility	16.4	83.1	0.5	1.16	12th
Outreach service for infants on immunisation against diseases	10.1	80.7	9.2	1.07	13th
Emergency blood transfusion is available at the MSS facility for emergency cases	9.7	86.9	3.4	1.06	14th
Essential medical equipment and drugs are available for pregnant women and nursing mothers at the MSS facility	12.1	74.9	13.0	0.99	15th
Ambulance service for referral cases to general/tertiary hospitals	9.7	28.5	61.8	0.82	16th
Laboratory service at the MSS facility	0.0	5.3	94.6	0.26	17 th

Field Survey, 2017

5.6.1 Affordability of MSS to respondents

Table 5.9 reveals that the most affordable MSS services to the respondents included cost of immunisation against adverse child birth outcomes ($\bar{x} = 2.08$), compliance with the neonatal care offered by SBAs ($\bar{x}=2.01$) and consultancy of the SBAs ($\bar{x} = 1.95$). The least affordable MSS services to the respondents were surgical delivery of the child ($\bar{x} = 0.51$), treatment of the infant and mother in the case of pre-mature birth ($\bar{x} = 0.95$) and drugs in child birth complication cases ($\bar{x} = 0.99$). These imply that cost of immunisation, consultancy service and compliance with neonatal care offered the respondents by the SBAs were within the financial capability of the respondents, possibly due to low financial cost and high preference for the services by the respondents.

Furthermore, the cost of surgery in delivery of a child as an option to ensure the safety of mother and child, treatment of mother and child in the advent of premature child birth, likewise drugs in child birth complications were of high financial burden to many of the women farmers. These could be as a result of low income status of the respondents in the risk embedded agricultural enterprises, with little or no appropriate agricultural production risks management and insurance cover as social security from their livelihood activities. This possibly led to respondents' financial incapacitation to use MSS adequately regardless of their emergency situation. This finding is in consonance with Kandel *et al.* (2004) who reported that knowledge on safe maternal health and economic capability are important to maternal health service utilisation.

Table 5.9: Distribution of respondents by affordability of MSS services

Items	Highly Affordable (%)	Moderately Affordable (%)	Not Affordable (%)	\bar{x}	Rank
Cost of immunisation against adverse child birth outcomes	82.6	16.0	1.4	2.08	1st
Consultancy fees for health service	78.7	21.3	0.0	1.95	2nd
Acquiring insecticide treated net to avoid malaria	86.9	11.6	1.4	1.87	3rd
Compliance with the neonatal care offered by SBAs	81.2	16.4	2.4	1.82	4th
Abstaining from some foods recommended by the SBAs for you to have safe birth	74.8	24.2	1.0	1.78	5th
Ambulance service or cab in the place of emergency child birth complication referred to the general hospital	74.9	21.7	3.4	1.72	6 th
Recommended personal and sanitary hygiene by the SBAs during pregnancy	72.5	26.1	1.4	1.69	7
Diagnostic tests for sexually transmitted diseases, any ailment or HIV in establishing the pregnancy state	53.6	55.0	1.4	1.52	8
Ultrasound scan in establishing the health status of the baby and the position in the womb more than twice for development monitoring	27.5	72.5	0.0	1.28	9
Cost of folic acid, vitamin B supplement and other maternal supplements that give multiple micronutrients	21.3	78.7	0.0	1.21	10
Blood transfusion, if involved in having your child delivered at the MSS facility	14.0	82.1	3.9	1.07	11
Appropriate medical treatment of any detected ailment in mother and child by the SBAs	10.6	88.9	0.5	1.06	12
Food supplements for the fetus not having commensurable weight with the number of gestation weeks for safe weight increase and sound baby at birth	9.7	86.4	3.9	1.02	13
Drugs on gestational dating for matured preterm (36 weeks) and term fetuses (40 weeks and above) to induce labour	8.7	86.5	3.9	1.01	14
Drugs in child birth complication cases	8.2	82.6	9.2	0.99	15
Treatment of the infant and mother in the case of pre-mature birth	12.1	71.0	16.9	0.95	16
Surgical delivery of the child in your womb if it is advised as the only safe option to bear the unborn child and mother safe	5.8	39.1	55.1	0.51	17

Field Survey, 2017

5.6.2: Respondents' level of affordability of MSS

The result of the levels of affordability of MSS by the respondents is presented in Table 5.10, with the level of affordability of MSS being low, as more of the respondents (54.1%) had a mean score of less than 23.1. This shows that respondents engagement in subsistence farming and other secondary occupations with little financial gains and possible little or no financial assistance from their husbands toward the utilisation of MSS could be hindrance to adequately meet the financial requirement to utilise MSS conveniently. Krieger, Chen, Waterman, Rehkopf and Surbrdmanian (2005) supported this finding that poor financial earning leads to inability to meet health needs appropriately and timely.

Table 5.10: Distribution of respondents based on level of affordability of Midwives MSS

Levels of affordability of MSS	%	Minimum	Maximum	Mean	SD
Low	54.1	12.00	32.00	23.13	6.04
High	45.9				

Source: Field Survey, 2017

Table 5.12: Level of utilisation of MSS

Levels of Utilisation of MSS	Overall	Oyo	Ogun	Ekiti	Minimum	Maximum	Mean	SD
Low (30.0-36.5)	15.5	22.9	22.6	45.2	30.00	72.00	46.42	10.80
Moderate (36.6-57.1)	64.7	61.4	59.7	33.9				
High (57.2-72.0)	19.8	15.7	17.7	20.9				

Source: Field Survey, 2017

5.7.1 Utilisation of MSS

Table 5.11 shows the services offered by MSS to the respondents. Assistance of skilled birth attendants was the most utilised skilled birth attendants service ($\bar{x}=1.67$) as a component of MSS by the respondents. This implies that assistance of skilled birth attendants was well sought and utilised during child birth, likewise on diverse medical complaints by the respondents. Prevention and treatment of malaria was the most utilised ante natal care service ($\bar{x}=1.54$) as a component of MSS by the respondents. This suggests that of the antenatal services offered the respondents through utilisation of MSS, prevention of malaria remained the most utilised antenatal service. This could be as a result of the women farmers' awareness on how to stay away from mosquitoes and forestalling contact with them through attendance of antenatal care. Availability of child delivery service was the most utilised twenty-four hours qualified service ($\bar{x}=1.82$) as a component of MSS by the respondents. This implies that child delivery service was the most utilised total day service offered by MSS to the respondents. This showed that safe child delivery was the most concerned service to the respondents.

Immunisation of mothers against disease like tetanus ranked the most utilised immunisation service ($\bar{x}=1.64$) by the respondents. This might be as a result of their first contact on immunisation service and awareness on immunisation during pregnancy. Provision of warmth to infants ($\bar{x}=1.97$) was the most utilised neonatal care service by the respondents. This could be as a result of their awareness in keeping the infants warm for survival, widen and arouse the interest of mothers in putting the infants in warm condition. Advice on early initiation of breast feeding and how to make non-lactating mothers lactate ($\bar{x}=1.97$) was the most utilised post-natal care service by the respondents. This indicates that the mothers had a wide awareness on the importance of exclusive breast feeding of their infants for strong immunity against diseases and good growth. This plausibly arouses their interest to consciously breast feed their infants adequately as a potent motherhood obligation to have sound and healthy babies.

Counseling on various family planning methods available under MSS was the most utilised family planning service ($\bar{x}=1.38$) offered the respondents. This indicates that respondents were tutored on various available family planning methods, identification of the most suitable one for them and having a free choice to select. Enlightenment and mobilisation campaign ($\bar{x}=1.43$) for pregnant women to utilise MSS recorded greater outreach service among the respondents. This suggests that enlightenment and mobilisation campaign was highly advocated by skilled birth attendants to the respondents. It increased their awareness of safety maternal health offered by Midwives Service Scheme, which improved their utilisation after contact with the campaign team. Management of pregnancy complications ($\bar{x}=0.52$) was the highest referral service offered the respondents. This suggests that upon recognition of pregnancy complications as threat to mother and child, management of identified cases was the most adopted option by the respondents. Functional ambulance service ($\bar{x}=0.41$) was the most available ambulance service to the respondents. This implies that the functionality of the ambulance dictated the usage of its service among respondents in emergency cases from the MSS facilities to the general and tertiary hospitals.

Management of childhood diseases like convulsion and measles ($\bar{x}=1.39$) was the most utilised infant welfare service among the respondents. This implies that the respondents utilised MSS facilities for the welfare of their children most on childhood diseases cases like convulsion and measles. Malaria and other suspicious diseases check ($\bar{x}=1.19$) were more verified through laboratory service by the respondents. This indicates that the respondents sought the use of laboratory service on suspected cases of malaria and other diseases complained to the skilled birth attendants with verifiable symptoms for appropriate diagnosis and treatment. Okwa (2007) supported these findings that women's use of orthodox health has a bearing to the treatment given them, incremental access and proximity to the facilities around them.

Table 5.11: Distribution of Respondents Based on the Utilisation of Midwives Service Scheme

COMPONENTS OF MSS	Always (%)	Rarely (%)	Never (%)	\bar{x}	Rank
NEONATAL CARE					
Cutting of the umbilical cord safely	90.3	5.8	3.9	1.19	1st
Safe care of the navel against infection of diseases	96.6	3.4	0.0	1.93	
Provision of warmth to infants	97.6	2.0	0.5	1.97	
Grand Mean				1.70	
POST NATAL CARE					
Advice on early initiation of breast feeding and how to make non-early lactating mothers lactate	63.3	36.2	0.5	1.97	2nd
Blood pressure and Packed Cell Volume (PCV) as blood level check	70.5	28.9	0.5	1.55	
Weighing of infants	56.5	42.9	0.5	1.56	
Grand Mean				1.69	
SKILLED BIRTH ATTENDANTS					
Attendance to all my pregnancy complaints	63.8	36.2	0.0	1.63	3rd
Assistance of midwives in child delivery	67.6	32.4	0.0	1.67	
Health talk on nutrition education, exclusive breast feeding, stress management and drugs prescribed	67.1	32.9	0.0	1.66	
Grand Mean				1.65	
24 HOURS QUALIFIED MANAGEMENT SERVICE					
Child delivery service	81.6	18.4	0.0	1.82	4th
Care of pregnant women	66.7	33.3	0.0	1.67	
Care of mother and child	63.8	36.2	0.0	1.41	
Grand Mean				1.57	
ANTENATAL CARE					
Physical examination of blood pressure and scan	52.2	47.3	0.5	1.52	5th
Prevention and treatment of malaria	54.6	44.9	0.5	1.54	
Provision of routine drugs and supplements like folic acid and vitamin C	27.5	71.9	0.5	1.27	
Grand Mean				1.44	
INFANT WELFARE					
Treatment of minor ailments like malaria and diarrhea	40.1	59.9	0.0	1.40	6th
Management of childhood diseases like convulsion and measles	59.4	40.1	0.5	1.39	

Treatment of minor injuries	28.9	70.0	1.0	1.28	
Grand Mean				1.36	
OUTREACH SERVICE					7th
Enlightenment and mobilisation campaign for pregnant women in the community	78.3	17.9	3.9	1.43	
Immunisation of children on house to house basis	17.9	79.2	2.9	1.35	
Grand Mean				1.35	
IMMUNISATION					8th
Immunisation of mothers against disease like tetanus	23.2	74.9	2.0	1.64	
Immunization of children against diseases like polio and pneumonia	21.3	78.7	0.0	1.16	
Provision of child survival interventions like de-worming and vitamin A	19.8	80.2	0.0	1.21	
Grand Mean				1.34	
FAMILY PLANNING					9th
Counseling on child spacing	60.4	39.1	0.5	1.28	
Counseling on Family planning methods	38.2	60.9	1.0	1.38	
Birth and Emergency plan	43.9	55.1	1.0	1.37	
Grand Mean				1.34	
LABORATORY SERVICE					10th
Ultrasound scan	0.0	70.0	29.9	1.08	
Malaria and other suspicious diseases check	22.2	74.8	2.9	1.19	
Grand Mean				1.16	
REFERRAL SERVICE					11th
Identification of required conditions for referral to general and tertiary hospitals by SBAs	13.0	24.2	62.8	0.50	
Management of pregnancy complications	14.5	21.7	63.7	0.52	
Follow up on referral cases to the general and tertiary hospitals	10.1	23.7	66.2	0.44	
Grand Mean				0.48	
AMBULANCE SERVICE					12th
Standby ambulance service	7.7	23.7	68.6	0.39	
Functional ambulance service	8.2	23.2	68.6	0.41	
Non-expensive ambulance service	9.2	22.2	68.6	0.39	
Grand Mean				0.40	

Field Survey, 2017 * \bar{x} = Mean

5.7.2: Level of Utilisation of MSS

The study reveals on Table 5.12 that many (64.7%) of the women farmers' utilised MSS moderately, having utilised MSS more than the average of 46.42 ± 10.80 . This indicates that many of the women farmers did not fully engage the use of MSS to maximise its potentials of preventing maternal death, ensuring safe child birth and ensuring survival of healthy children. Thus, respondents' low accessibility to MSS, poor effectiveness of MSS operations, low affordability of MSS and prevailing husbands' decision on child birth in the rural areas earlier reported could be responsible for their inadequate utilisation of MSS, which could lead to negative maternal outcomes. This finding corroborates World Health Organisation (2004 and 2007) that women die of pregnancy and childbirth as a result of low utilisation of orthodox medicine. The result is further corroborated by (Yahaya, 2004) who reported that low accessibility to and utilisation of orthodox medical services is laden with patterns of social relationships and interactions, women's stake in family matters and financial status of families.

5.8: Effectiveness of MSS

Table 5.13 reveals that the most effective of the MSS services offered the respondents include exclusive breast feeding on infant growth condition ($\bar{x}=1.29$), health talk on nutrition education and stress management ($\bar{x}=1.21$), positive and prompt response of SBAs toward respondents ($\bar{x}=1.14$) and child delivery service ($\bar{x}=1.10$). The least effective of the MSS services to the respondents were management of pregnancy complication cases ($\bar{x}=0.19$), ambulance service ($\bar{x}=0.27$) and availability of drugs at the MSS facility ($\bar{x}=0.29$). These indicate that the adoption of exclusive breastfeeding for infants, health talk given to respondents on nutrition and stress management and SBAs attention to their medical needs were the most effective maternal health services received. It can be inferred that the large advocacy of exclusive breast feeding from various programmes on safe maternal health, health talk on nutrition and stress management, likewise the readiness of skilled birth attendants to attend to pregnant and nursing mothers spurred respondents' utilisation of MSS. These findings are in line with Beaglehole and Dalpoz (2003) who found that that comfortable, secure, warm and proficient health service is crucial to better health practices and utilisation.

However, management of pregnancy complication cases in the MSS facilities and the use of ambulance service for referral cases to general and tertiary hospitals, likewise availability of drugs in the MSS facility were ineffective among the respondents. These could reduce respondents' utilisation of MSS for child delivery and post child delivery services. This finding is in consonance with Mansoor, Hashimi and Mukhtaar (2009) who reported that utilisation of health service depends on standard of practice, economic accessibility and production of intended result. Also, this finding is supported by Griffiths and Stephenson (2001) that the reasons for utilisation of orthodox medicine include disposition of health professionals toward patients, patients' opinion about care offered and their faith in the competence of the health professionals. Federal Ministry of Health (2004) further corroborated this result that general hospitals are often in distressed conditions of poor funding, low service delivery, poor administrative management and low staff.

Table 5.13: Distribution of respondents by Effectiveness of MSS

Items	Highly Effective (%)	Effective (%)	Not Effective (%)	\bar{x}	Rank
Exclusive breast feeding on infant growth condition	30.4	69.1	0.5	1.29	1st
Health talk of nutrition education and stress management offered pregnant and child nursing women	19.3	79.3	1.4	.21	2nd
Positive and prompt response of SBAs toward pregnant women and nursing mothers	12.6	85.5	1.9	1.14	3rd
Child delivery service	10.6	89.4	0.0	1.10	4th
Drugs prescribed by the SBAs for treatment of diseases and sicknesses	7.2	90.3	2.5	1.07	5th
Physical examination for blood pressure	6.3	92.8	1.0	1.05	6th
Advice on early initiation of breast feeding and lactation stimulating mechanisms to mothers who could not lactate early for the baby to suckle breast milk	8.2	88.9	2.9	1.05	7th
Laboratory service of scan for fetus development and possible disease diagnosis	7.7	88.4	3.9	1.04	8th
Cutting of umbilical cord and care of navel	7.7	87.9	4.3	1.03	9th
Blood test conducted to diagnose diseases and ascertain health status of patient	5.8	91.8	2.4	1.02	10th
Prevention of malaria and treatment of malaria	7.8	85.0	7.2	1.01	11th
Identification of conditions that require referral like anaemia and or bleeding vagina	5.3	91.8	2.9	0.99	12th
Outreach service on vaccines as immunisation to children and sensitization on the gains of utilising MSS for child delivery	7.2	65.7	27.1	0.92	13th
Provision of tetanus toxoid for mothers	6.8	60.4	32.8	0.87	14th
Child vaccinations at the MSS facility	6.3	57.0	36.7	0.84	15th
Family planning service	40.1	50.7	9.2	0.80	16th
Screening and test before family planning	5.8	48.3	45.9	0.60	17th
Availability of drugs at the MSS facility anytime the SBAs prescribe medication for you	6.3	16.9	76.8	0.29	18th
Ambulance service	5.3	15.9	78.7	0.27	19th
Management of pregnancy complication cases	4.3	2.4	93.2	0.19	20th

Source: Field Survey, 2017

5.8.2 Respondents' level of effectiveness of MSS

Table 5.14 reveals that the level of effectiveness of MSS was low in the study area, with 55.6% of women farmers having a mean score of less than 18. This implies that maternal health services available and offered to the respondents through MSS was not effective in its delivery of maternal health services. Thus, the poor effectiveness of MSS operations among the respondents could reduce their utilisation of MSS. Ajilowo and Olujimi (2007) supported this finding that health services are more effective in the towns and cities than in the villages.

Table 5.14: Distribution of respondents based on the levels of effectiveness of MSS

Levels of effectiveness of MSS	%	Minimum	Maximum	Mean	SD
Low	55.6	10.00	40.00	17.63	5.34
High	44.4				

Table 5.15: Distribution of respondents based on the constraints encountered in utilising MSS

Items	Serious Constraint	Mild Constraint	Not a Constraint	\bar{x}	Rank
Strike action of midwives personnel	89.4 84.1	10.1 14.9	0.5 1.0	1.89 1.83	1st 2nd
Unavailability of essential drugs and vaccines at the MSS facility	82.1	16.4	1.4	1.80	3rd
Shortage of skilled birth attendants					
Long waiting hours to see the MSS health officials	81.6	15.9	2.4	1.79	4th
Poor laboratory service	64.3	27.1	8.7	1.53	5th
Long distance to MSS facility	57.0	28.9	14.0	1.43	6th
Insufficient wards and mattresses for child delivery	21.3	67.1	11.6	1.09	7th
High cost of medical services	10.1	86.5	3.4	1.07	8th
Erratic power supply	10.6	85.0	4.3	1.06	9th
High cost of trimester scanning	7.7	89.4	2.9	1.05	10th
Inadequate water supply	8.7	87.4	3.9	1.04	11th
Poor attitude of midwives to patients	14.0 7.7	74.4 56.0	11.6 36.2	1.02 0.82	12th 13th
Low confidentiality in medical history shared with SBAs from being heard and known to other people	9.2 10.6	62.3 40.6	28.5 48.8	0.81 0.62	14th 15th
Poor ambulance service					
Poor referral system to secondary and tertiary hospitals					
Language barrier	7.2	30.9	61.8	0.58	16th
Irregularity of SBAs at the MSS facility	10.1	34.3	55.6	0.55	17th

Field Survey, 2017

5.9: Constraints to utilisation of MSS

The result on constraints to utilisation of MSS are presented on Table 5.15 and Figure 7. These reveal that the most severe constraints experienced by respondents in utilising MSS included strike action of midwives ($\bar{x} = 1.89$), unavailability of essential drugs and vaccines at the MSS facility ($\bar{x} = 1.83$), shortage of skilled birth attendants ($\bar{x} = 1.80$) and long waiting hours by respondents to see the MSS health officials ($\bar{x}=1.79$). The least of the constraints experienced by respondents were irregularity of SBAs at the MSS facility ($\bar{x} = 0.55$) and language barrier ($\bar{x} = 0.58$). These imply that the unavailability of essential drugs and vaccines at the MSS facility, likewise strike action of the midwives were the serious constraints encountered by the women farmers in utilising MSS. The results of IDI and FGD corroborate this finding. According to the Village Development Committee Chairman in Ofada community in Ogun State,

“MSS is a laudable programme of the government with huge benefits of preventing maternal death among our wives and daughters. We are predominantly arable crop farmers, our women farm a lot, do crop processing and marketing. We are confronted with essentially problems of poor drugs, vaccines and laboratory in our MSS facility, our women have to go to Mowe and even Lagos to get drugs prescribed to them on many occasions. Not only that, incessant strike actions of midwives that take the delivery of our wives safely, is a big problem to us, few midwives are here to attend to many of our pregnant and nursing mothers. These have led to few cases of maternal death and loss of children born at home when the MSS facility was shut to strike action.

Another female discussant remarks during FGI:

“Strike action is our greastest problem and fear when pregnant, because our government don’t pay the midwives regularly and they have to fight the government to get their money in order to meet their social responsibilities. We dont blame them, as man alone cannot take care of the family with the economic state of the nation today. We are basically food crop farmers and traders, we gain alot on reproductive health from the skilled birth attendants on how to live healthy and enjoy our marrital life. Even their health talk and drugs recommended for us to use when we make complaints to them, help us stay strong and do our farming activities very well”.

The problem tree analysis on Figure 7, corroborated this result more clearly that the main problem encountered by respondents in using MSS was the poor conditions they were subjected The causes of the poor conditions they were subjected to, as indicated by the respondents were strike action, poor funding and shortage of skilled birth attendants, resulting to the consequential effects of decline in MSS utilisation, high maternal mortality and reduction in women farmers among others.

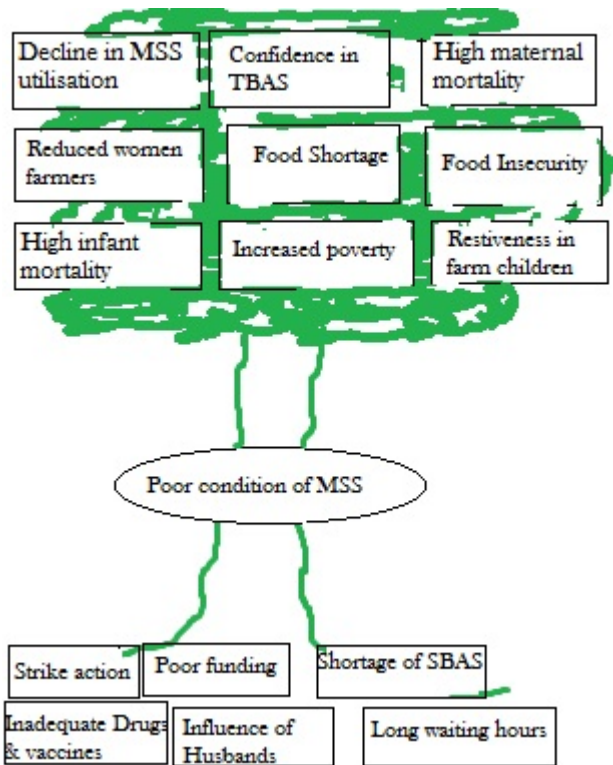


Figure 7: Problem Tree analysis of the constraints faced by the respondents in utilising MSS

5.10 Test of hypotheses

Ho1: Relationship between respondents' socioeconomic characteristics and utilisation of MSS

Table 5.16 reveals that significant relationship existed between the religion of women farmers and utilisation of MSS ($\chi^2 = 0.630$, $p < 0.05$). This implies that religion did not contradict the use of MSS among women farmers, as it remains an environmental force in the society to propagate safe child birth ideas, beliefs, knowledge and ideal maternal ethical practices that could be used to propagate the utilisation of MSS. Obasi (2006) supported this finding that the norm and practice of a society depends on systems of faith, custom and precepts guiding the existence of a people.

Significant correlation existed between educational level of the women farmers and utilisation of MSS ($\chi^2 = 0.630$, $p \geq 0.05$). This shows that the higher the women farmers were educated and enlightened the more they consciously seek and utilise MSS as the best option to safe maternal health. This result agrees with Wong, Popkin, Gulley and Akin (2004) who reported that women with elevated state of education and knowledge are prone to utilise orthodox health care than their counterparts with low educational status. Adeyemo and Bamire (2005) supported this finding that enlightenment advances knowledge, its processing and applications for human benefits and sustainability. This finding also corroborates Etuk, Olatunji and Ekong (2013) who asserted that learning is instrumental and informative to knowledge search, likewise its usefulness among a group of people.

The study further reveals on Table 5.16 that no significant correlation existed between respondents' age and MSS utilisation ($r = 0.079$, $p > 0.05$). This indicates that age of the respondents did not determine their utilisation of MSS, but pregnancy, child birth and child nursing experiences are expected to influence their utilisation of MSS. Family size had significant correlation with MSS utilisation ($r = 0.523$, $p < 0.05$). This implies that as the family size of the women farmers' increases, there is a tendency for them to experience additional maternal risks from more family stress and different experiences of pregnancy and child birth, which could influence them to utilise MSS as a better

alternative to other child delivery centres in their locality. This result negates the finding of Kebebe, Medhanit, Dawit and Kassahun (2012) that women with big family sizes seem not to deliver in orthodox health facilities.

Monthly income had a significant correlation with MSS utilisation among women farmers in the selected states ($r = 0.480$, $p < 0.05$). This shows that improved monthly income among the respondents strengthens their financial capability and opportunity to utilise MSS. Mansoor *et al.*, (2009) supported this finding that utilisation of modern health services among inhabitants of a community depends on its provision, efficacy, financial implication, people's faith in the services and family values.

Table 5.16: Relationship between respondents' socioeconomic characteristics and MSS utilisation

Variable	df	Chi-square (χ^2)	value	p-value	Decision
Religion	3	2.040		0.001	Significant
Educational level	4	12.85		0.005	Significant
Age		r 0.079		0.260	Not significant
Family size		0.117*		0.020	Significant
Monthly income		0.480*		0.000	Significant

Source: Field survey, 2017 * df means degree of freedom

Ho2: Correlation between respondents' attitude and utilisation of MSS

The study reveals in Table 5.17 that a significant positive correlation existed between respondents' attitude towards MSS and the utilisation of MSS ($r = 0.376$, $p < 0.05$). This indicates that the more MSS meets respondents' expectations and solve their maternal health complaints, the more favourable they get disposed to its utilisation for their maternal health issues. This finding agrees with Advocacy Brief (2007) that engagement of orthodox health services by rural women for their maternal health issues depends on their personal faith and subjective opinions on the capability of such health services, offering guarantee for safe maternal health conditions.

Table 5.17: Pearson Product Moment Correlation analysis of the correlation between respondents' attitude and utilisation of MSS

Independent Variable	\bar{x}	SD	r	p	Decision
Attitude	64.16	13.87	0.376*	0.001	Significant

Field Survey, 2017 *indicates significant value

Ho3: Correlation between effectiveness and utilisation of MSS

The study reveals in Table 5.18 that no significant correlation existed between effectiveness of MSS and the utilisation of MSS in the study area ($r = 0.605; p > 0.05$). This implies that the lower the respondents' expectations are met in terms of service delivery of MSS, the lower the tendency to utilise adequately. This might be that the evaluation of the respondents in terms of the services offered by MSS and its operations were not satisfactory enough and unconvincing for adequate utilisation, despite producing actual result of safe pregnancy and child birth. This could be as a result of inadequacy in the quality of programme delivery, leading to non-significance of utilisation among the respondents. The result agrees with Dairo and Owoyokun (2010) who found that women resident in areas with good infrastructure are prone to utilise orthodox medicine facilities actively than those resident in areas with poor infrastructural facilities.

Table 5.18: Pearson Product Moment Correlation analysis of the correlation between effectiveness and utilisation of MSS

Independent Variable	\bar{x}	SD	r	p	Decision
Effectiveness	17.63	5.34	0.605	0.107	Not Significant

Field Survey, 2017

Ho4: Correlation between constraints faced by the respondents and utilisation of MSS

The study reveals in Table 5.19 that there was positive correlation between the constraints faced by respondents in utilising MSS and its utilisation ($r = 0.272$; $p < 0.05$). This implies that the higher the constraints experienced by the respondents while utilising MSS, the higher the tendency of experiencing a declining state of utilisation. This could limit or restrict respondents from actively utilising MSS overtime to the possibility of whittled interest. FDG excerpts with pregnant women in Oke-Emure supported this finding that

“We face constraints in utilising MSS in different forms, ranging from long waiting time to see the SBAs and tell them our complaints, strike action of the SBAs among others that sometimes get us discouraged from coming to the primary health care centre by skipping antenatal meetings but the CHEW would come to our houses and persuade us to be patient with them that we would soon deliver our expectant babies safely. They would tell us not to miss meetings and the pregnancy state would soon be over”

Table 5.19: Pearson Product Moment Correlation analysis of correlation between constraints and utilisation of MSS

Independent Variable	\bar{x}	SD	r	p	Decision
Constraints	19.98	4.23746	0.272*	0.000	Significant

Field Survey, 2017 *indicates significant value

Ho6: Significant differences in the level of MSS utilisation among the respondents across states

The study reveals in Table 5.20 that a significant difference existed in the level of MSS utilisation among the respondents across the three sampled states. This means that MSS utilisation levels of the respondents vary from one state to another. This may not only be as a result of varying scales of their socioeconomic characteristics, but may also be due to varying levels of their awareness on MSS, attitude to MSS usage, their maternal health information seeking behaviour, accessibility to MSS and affordability of MSS, effectiveness of MSS and constraints faced by the respondents in utilising MSS. This result is consistent with the finding of Ranjendra, Andy and Colin (2013) that the predictors of women utilising mother and child care health services are patterns of social relationships, pre-conceived notions, norms and values, mutual suspicion and disposition to skilled birth attendants, likewise proximity to orthodox health facilities and financial capability.

The post hoc test, using Scheffe in Table 5.22 further shows separation of means across the three states. It reveals that the level of utilisation of MSS was higher and the same for respondents in Oyo State (49.2410 ± 11.39) and Ogun State (45.0806 ± 9.28), respectively while there was no significant difference between the level of MSS utilisation in Ogun (45.0806 ± 9.28) and Ekiti (44.0000 ± 10.71). The similarities in the in MSS utilisation levels by the respondents in Oyo and Ogun states and in Ogun and Oyo states, respectively may be connected with respondents' maternal health information seeking behaviour, their attitude to MSS, accessibility to MSS facilities and services, affordability of MSS services, effectiveness of MSS in the states and constraints faced by the respondents in utilising MSS facilities.

Table 5.20: Analysis of variance of the differences in the levels of utilisation of MSS across states

Variable		Sum of Squares	df	Mean Square	F	p
Utilisation of MSS	Between Groups	1134.812	2	567.406	5.064*	0.003
	Within Groups	22903.777	205	112.273		
	Total	24038.589	207			

Source: Field Survey, 2017

*indicates significant value

Table 5.21: Post hoc analysis of the separation of means for respondents' level of MSS utilisation across the selected states

Scheffe			
States	N	Subset for alpha = 0.05	
		1	2
Ekiti	62	44.0000	
Ogun	62	45.0806	45.0806
Oyo	83		49.2410
Sig.		0.839	0.076

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 67.711.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Ho6: Contributory factors to women farmers' utilisation of MSS

The result of the analysis in Table 5.23 shows that accessibility to MSS ($\beta=0.601$; $p<0.05$), monthly income ($\beta=0.503$; $p<0.05$), affordability of MSS ($\beta= 0.244$; $p<0.05$), maternal health information sources ($\beta=0.190$; $p<0.05$) and maternal health information seeking behaviour ($\beta=0.017$; $p<0.05$), and were significant contributors to MSS utilisation among the women farmers in the study area. R-square value for all significant variables was 0.776, which means that these significant variables accounted for 77.6% variation in women farmers' utilisation of MSS. These imply that the monthly income of the women farmers, their sources of maternal health information, maternal health information seeking behaviour, accessibility to MSS and affordability of MSS were major variables that determined the utilisation of MSS.

Accessibility to MSS was the most important predictor to MSS utilisation among the women farmers. Their accessibility to MSS in terms of the length of distance, time and ease of availability of MSS components, associated with 0.6 unit increase in utilisation of MSS. This indicates that shorter distance covered by the respondents close to the MSS facilities, aided timely, easy availability and reach of MSS services to them compared to their counterparts who are farther from MSS facilities, with susceptibility of more hardship in accessing MSS facilities and services. Therefore, respondents' accessibility to MSS enhances utilisation of MSS, which has a positive bearing on the sustenance of the women labour force and prevention of avoidable maternal death in the study area. This finding is corroborated by Ranjendra, Andy and Colin (2013) that proximity and means to safe mother and child care services through orthodox health centre influences its utilisation. This finding is also supported by WHO (2001) that having means to efficient health services with financial capacity to obtain medical help, incline inhabitants of a community to seek proper medical assistance and utilise safe maternal health services to forestall unpleasant situations in remote places.

The study further identifies that monthly income ($\beta=0.503$; $p<0.05$) was also a significant predictor of MSS utilisation among the respondents. This implies that increased monthly income of women farmers was a higher predicting variable to MSS utilisation compared

to maternal health information sources and maternal health information seeking behavior, which led to 0.50 increase in the utilisation of MSS among the respondents. This may be that the multi-income streams of farming activities along the chain of crop production, crop processing and marketing of food crops, as primary and secondary occupations led to considerable financial capability to meet some of the financial requirements to utilise MSS among the women farmers. This finding is in consonance with Ladipo (2008) and WHO (2010) that capability and economic means are driving and ultimate factors influencing the use of medical provisions in less advanced nations.

Table 5.22: Regression analysis of factors affecting women farmers' utilisation of MSS

Variables	Unstandardized Coefficients β	Standard Error	Standardized Coefficients Beta Value	t-value	p-value
Constant	6.928	26.285	19.739	2.011	0.046
Age	0.216	0.159	0.046	0.679	0.498
Religion			0.069	1.907	0.058
Family Size	1.331	0.962	-0.060	-0.830	0.408
Decision on place of child birth			-0.022	-0.634	0.527
Educational level			0.032	0.761	0.447
Monthly income	0.000	0.000	0.503	7.457	0.000*
Maternal health information sources	0.394	0.403	0.190	4.548	0.000*
Maternal health information seeking behaviour	0.248	0.168	0.017	0.320	0.000*
Attitude towards MSS	0.132	0.173	0.059	1.479	0.141
Accessibility to MSS services	1.326	0.138	0.601	12.408	0.000*
Affordability of MSS services	0.580	0.258	0.244	5.697	0.000*
Effectiveness of MSS services	-0.074	0.213	-0.012	-0.216	0.829
Constraints to MSS utilisation	0.503	0.286	0.113	1.780	0.077
R			0.881		
R-Square			0.776		
Adjusted R			0.760		
df			14		
F-Value			46.636		

* significant level at 0.05

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

Studies have revealed that maternal health is of great concern to the Nigerian economy, with women contributing greatly to the social and economic growth of the country, particularly those in the rural areas and largely in the informal sector of the nation die from complications in pregnancy and childbirth that could be prevented. National dependence on international donors for driving and delivering intervention programmes on human empowerment and life sustainability have proven non-sustainable in the country over the years, as their withdrawal is inevitable after sometime. This led to the establishment of MSS in 2009 as a national programme, funded essentially by the federal government, state and local governments with some financial and technical support from international health agencies to stem and eradicate maternal death in the country. Village and Ward Development Committee are embedded in the MSS programme to create ownership, encourage and enhance women participation in the programme among Nigerian communities. This has a great potential of stirring a “we-feeling” development among communal people for adequate utilisation on maternal health issues and holds influence for sustainable usage.

Moreover, the programme provides pre and post natal health services to forestall maternal and child mortality and also reduce harmful practices leading to depopulation of the women labour in the rural areas, threatening food production and economic stability of rural homes. The programme is managed and supervised by National Primary Health Care Development Agency (NPHCDA) which adopted some primary health care centres

as MSS facilities in certain local government areas of both rural and urban areas for its operations. It provides a platform to widen the coverage of safe maternal health and equitable access to safe motherhood in the country. However, poor infrastructure, low economic return on both primary and secondary occupations and inefficient maternal health service delivery are limiting factors to adequate utilisation of midwives service scheme by the rural women farmers.

A four-stage sampling procedure was used to select respondents for the study. Three states from southwestern states (Oyo, Ogun and Ekiti) were randomly selected. Thereafter, ten Local Government Areas (LGAs) from eighteen LGAs that adopted MSS programme in the selected states were sampled. Also, 30% of the MSS facilities in the sampled LGAs were selected, resulting in 13 MSS facilities. Proportionate sampling technique was used to select 20% of registered women farmers in the selected 13 MSS facilities to give 207 respondents. Interview schedule was used to collect data on respondents' socioeconomic characteristics, Maternal Health Information Sources (MHIS), Maternal Health Information Seeking Behaviour (MHISB), attitude and accessibility to MSS services, affordability and effectiveness of MSS, utilisation of and constraints to MSS. Indices of MHISB (low, 20.0-37.8; high, 37.9-48.0), attitude (low, 55.0-64.1; high, 64.2-99.0), accessibility (low, 13.0-22.2; high, 22.3-34.0), affordability (low, 12.0-23.0; high, 23.1-34.0), effectiveness (low, 10.0-17.5; high, 17.6-40.0) and utilisation (low, 30.0-46.3; moderate, 46.4-64.7; high, 64.8-72.0) of MSS were generated. Data were analysed using descriptive statistics, Chi-square, Pearson Product Moment Correlation and linear regression at $\alpha_{0.05}$

Crop farming is the primary occupation of many (69.4%) of the respondents in the study area, their average age was 36.10 ± 8.30 , average years of farming was $22,014.43 \pm 13.08$ and average family size was 6.70 ± 1.50 . Community health extension workers were the major (96.1%) source of maternal health information among the respondents. Level of maternal health information seeking behaviour was high among many (58.9%) of the respondents. Level of respondents attitude towards midwives service scheme was favourable among many (53.2%) of the respondents. Respondents' accessibility level to

midwives service scheme was low among many (53.6%) of the respondents, while the affordability of midwives service scheme was low among (54.1%) of the respondents. Effectiveness of midwives service scheme was rated low by 55.6% of the respondents. The most severe constraints experienced by the respondents were strike action of midwives ($\bar{x} = 1.89$), unavailability of essential drugs and vaccines at the MSS facility ($\bar{x} = 1.83$), shortage of skilled birth attendants ($\bar{x} = 1.80$) and long waiting hours by respondents to see the MSS health officials ($\bar{x}=1.79$). The least of the constraints experienced by respondents were irregularity of SBAs at the MSS facility ($\bar{x} = 0.55$) and language barrier ($\bar{x} = 0.58$). Level of utilisation of MSS was moderate for many (64.7%) of the respondents. The most utilised MSS services by the respondents were advice on early initiation of breast feeding and how to make non early lactating mothers lactate ($\bar{x} = 1.97$) and provision of warmth to the infants ($\bar{x} = 1.97$). The least utilised MSS services by the respondents were standby ambulance service ($\bar{x} = 0.39$) and non-expensive ($\bar{x} = 0.39$).

Religion ($\chi^2 = 2.041$, $p<0.05$) and respondents' educational level were significantly related to MSS utilisation ($\chi^2 = 12.848$, $p\leq 0.05$). Family size ($r = 0.02$, $p>0.05$) and respondents' monthly income were significantly related to MSS utilisation ($r = 0.480$, $p<0.05$). Attitude ($r = 0.376$, $p<0.05$) and respondents' constraints to MSS utilisation were significantly related to MSS utilisation ($r = 0.272$, $p<0.05$). Effectiveness of MSS was not significantly related to its utilisation ($r = 0.605$, $p>0.05$). Utilisation level of MSS was significantly different ($F = 5.064$, $p <0.05$) across the three states sampled for the study. MSS was most utilised by the respondents in Oyo (49.2410 ± 11.39) and least utilised in Ekiti (44.0000 ± 10.71). The study also establishes that accessibility to MSS ($\beta= 0.601$, $p<0.05$), monthly income ($\beta= 0.503$, $p<0.05$), affordability of MSS ($\beta= 0.244$; $p<0.05$), maternal health information sources ($\beta= 0.190$, $p<0.05$) and maternal health information seeking behaviour ($\beta= 0.017$, $p<0.05$) have significant effects on the utilisation of midwives service scheme in the study area.

6.2 Conclusion

The study concludes that women farmers are mainly in their reproductive ages of child bearing and active years of involvement in all aspects of agricultural activities, hence they expected to utilise MSS for safe maternal health and child care, sustainable for farm labour and farming occupation. Respondents are mainly small holder farmers participating in other livelihood activities, as secondary occupations for increased income, yet recorded low monthly income. Christianity was their predominant religion, Islam was also practiced among many and few were traditional worshippers, whose religious faith did not contradict the utilisation of MSS. Many had a form of formal education but were subsumed to their husbands' decision in utilisation of MSS, with resultant effect of women farmers having little or no say on decision to utilise MSS for their maternal health. Also, sourcing of maternal health information was mainly through community health extension workers.

The study further concludes that respondents' maternal health information seeking behaviour on MSS was high, which possibly influenced their favourable disposition to MSS utilisation. Level of accessibility to the midwives service scheme was low, which may be connected to respondents' having to walk a long distance to MSS facility and uneasy accessibility of the MSS services. Level of affordability of MSS services was low, which may be connected to low monthly income of the women farmers. Effectiveness of MSS was low, owing to poor delivery system despite producing actual results of safe pregnancy and childbirth. The most severe constraints faced by the women farmers were strike action of skilled birth attendants, unavailability of essential drugs and vaccines at the MSS facility, long waiting hours to see the MSS health officials and poor laboratory service.

The study further concludes that utilisation of MSS was moderate, which may be connected to low accessibility of MSS, low effectiveness of MSS and the negative influence of the constraints faced by the women farmers in utilisation of MSS. The most utilised MSS services were neonatal care, post natal care, skilled birth attendants, while the least utilised were ambulance service and referral service, owing to the premium women farmers placed on their infants' survival and children as farm support. Also, there

was an evidence of ineffectiveness of ambulance service and referral service in the operations of MSS. The study further concludes that determinants of MSS were accessibility to MSS, monthly income, affordability of MSS, maternal health information sources and maternal health information seeking behaviour and hence, there was a difference in the utilisation of MSS in the sampled states. MSS utilisation was concluded to be most utilised in Oyo and least utilised in Ekiti. The study concludes that the utilisation of MSS is a function of the nexus of several factors, among which are accessibility to MSS, monthly income, sources of maternal health information, maternal health information seeking behaviour and affordability of MSS.

6.3 Recommendations

1. Community health extension workers and Village Development Committee members should extend safe maternal health sensitisation of MSS to husbands in rural communities for enhanced utilisation of MSS by their wives, so as to mitigate against avoidable maternal death, improve child bearing women's maternal health information seeking behaviour towards MSS and strengthening of MSS utilisation in the rural communities.
2. There is need for government at all levels, Non-Governmental Organisations (NGOs), civil societies and community leaders to harmoniously encourage all child bearing women in the rural areas to utilise MSS for their maternal health care. This will enhance more and adequate utilisation of MSS facilities among rural women and prevent them from needless maternal death.
3. Government should intensify more sensitisation programmes on safe family planning through consultation of MSS on the radio in local languages for increased mobilisation of women to adequately utilise MSS for their maternal health attention.
4. Government should provide Midwives Service Scheme facilities with laboratories, essential medical equipment and drugs, improve the basic social amenities in the farming communities like electricity and good rural road network to drive the functionality of the laboratories, improve the accessibility and

effectiveness of Midwives Service Scheme, essential for effective utilisation among child bearing women farmers.

5. Government should encourage partnership with Non-Governmental Organisations into welfare activities, like the Red Cross Society to improve the delivery of Midwives Service Scheme operations in the farming communities through provision of more delivery kits, drugs, vaccines and functional ambulances to the Midwives Service Scheme facilities. This will enhance better delivery, favourable attitude of child bearing women towards utilisation of MSS and more accessibility of MSS services to its users.
6. Government should establish national health insurance scheme for child bearing women in the rural farming communities in order to lessen the financial cost and burden of utilising Midwives Service Scheme. This will make Midwives Service Scheme services more affordable and accessible to the child bearing women farmers; at the same time increase their utilisation of Midwives Service Scheme.
7. Emoluments and welfare of skilled birth attendants should be timely considered, made a top priority and delivered promptly by the tripartite partnership of the local, state and federal governments to motivate, keep and encourage the skilled birth attendants on efficient delivery of preventive and curative maternal health services of Midwives Service Scheme to the women farmers. This will not only reduce strike action of the skilled birth attendants but improve their working capacity as a service component of Midwives Service Scheme.
8. Government should employ more skilled birth attendants to attend to the child bearing women utilising MSS, in order to increase the skilled birth attendants' ratio to the child bearing women. This will enhance more women farmers' accessibility to SBAs and reduce their waiting time seeking the attention of SBAs on their maternal health needs.
9. Government should improve on its technical support to Midwives Service Scheme through regular in-service and on the job training for skilled birth attendants on competent maternal health delivery, inculcating and demonstration of humanitarian services, compassion and empathy at all time to child bearing mothers and children. This will aid and sustain favourable attitude by the women

farmers towards MSS utilisation. It will boost the confidence and reliance of not only women farmers but rural communities at large in seeking their health care needs from SBAs, thereby increasing the utilisation of MSS among rural people.

10. Expansion of Midwives Service Scheme to yet adopted Local Government Areas should be considered by the government with improvement in ongoing Midwives Service Scheme operations, in order to limit the constraints experienced by its users, provide wider coverage to users and strengthen utilisation of Midwives Service Scheme.
11. Government should ensure that there is the provision of functional, standby and least expensive ambulance service at the MSS facilities for complicated and emergency cases that need quick referral to the general and tertiary hospitals in the urban areas, usually distant from the rural areas.

6.4 Contributions to knowledge

1. Study provides data on the extent of influence of skilled birth attendants on utilisation of Midwives Service Scheme by women in Southwestern Nigeria.
2. Study gives insight into the appropriateness of a combination of different maternal health information sources in disseminating safe maternal health education for enhanced positive behavioural change and integration of safe maternal health practices among child bearing women in Southwestern Nigeria.
3. Study gives insight into different dispositions and responses of rural child bearing women to utilisation of Midwives Service Scheme as a function of educational attainment, socio-cultural factors, maternal health information sources and constraints encountered in utilisation of Midwives Service Scheme in Southwestern Nigeria.
4. Study shows that effectiveness of MSS pre and post natal services delivery is crucial to utilisation of Midwives Service Scheme and its sustenance among women farmers in Southwestern Nigeria.
5. Study provides data on the extent of contributions of respondents' education, monthly income, maternal health information sources, maternal health information seeking behaviour, accessibility to and affordability of Midwives

Service Scheme services to utilisation of Midwives Service Scheme in Southwestern Nigeria.

6.5. Areas of further research

The following areas can be further investigated;

1. Similar studies can be conducted in the northern states of Nigeria
2. The link between maternal health care and alleviation of poverty in farming households
3. Constraints of skilled birth attendants toward safe midwifery delivery in rural Nigeria.



Plate 2: Focus Group Discussion with children nursing mothers at Ofada MSS facility



Plate 3: Focus Group Discussion with men in the Village Development Committee at Orun Ekiti



Plate 4: In depth interview with Village Development Committee's secretary at Orun Ekiti



Plate 5: Interview Schedule with some Respondents at Orun Ekiti MSS facility



Plate 6: Conduct of Interview Schedule with some Respondents at Ofada MSS facility

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APPENDICES

Appendix I: QUESTIONNAIRE

DEPARTMENT OF AGRICULTURAL EXTENSION AND RURAL DEVELOPMENT, UNIVERSITY OF IBADAN, IBADAN

Dear respondents,

I am a student of the above named Department and my research project is on “Determinants of Midwives Service Scheme Utilisation Among Women Farmers in South Western Nigeria”. You have been selected to participate in this survey because of your importance as a child bearing woman farmer. All information supplied shall be used solely for research purpose and treated with absolute confidentiality.

Thank you for your cooperation

DETERMINANTS OF MIDWIVES SERVICE SCHEME UTILISATION AMONG WOMEN FARMERS IN SOUTH WESTERN NIGERIA

Section A: Socioeconomic characteristics

1. Age: ----- (Actual age in years)
2. Religion: (a) Christianity () (b) Islam () (c) Traditional ()
3. Marital status: (a) Single () (b) Married () (c) Widowed () (d) Divorced ()
4. Family size (Actual family size)
5. Level of education: (a) No formal education (b) Primary () (c) Secondary () (d) Tertiary () (e) Adult education () (f) others (specify)
6. What is your primary occupation? (a) Crop farming () (b) Livestock rearing () (c) Crop farming and livestock rearing () (d) Agricultural processing () (e) Craft making () (f) Food vending () (g) Others (specify)
7. What is your secondary occupation? (a) Crop farming () (b) livestock rearing () (c) Agricultural processing () (d) Craft making () (e) Food vending () (f) Others (specify) -----
8. Monthly income: (Actual monthly income)
9. Membership of Association: (a) Religious association () (b) Cooperative society () (c) Occupational group () (d) Trade union () (e) others (specify)
10. Who is responsible for place of child delivery: Husband (), husband and wife agreement () personal conviction ()

Section B: Sources of maternal health information available to the respondents

Sources of Information on maternal health	Yes	No	Frequency of accessibility		
			Always	Occasionally	Never
Community Health Extension agent					
Skilled birth attendants					
Religious group					
Women farmers group					
Cooperative society					
Ward Development Committee					
Village Development Committee					
Radio					
Television					
Friends					
Fliers					
Seminar					
Poster					

Section C: Maternal Information Seeking Behaviour of Respondents toward MSS

Please kindly tick the options below as applicable to indicate how early you seek MSS

S/N	The following information can be sought from MSS	Promptly Sought through MSS	Delayed Sought through MSS	Reliance on TBAs
1	Swollen feet and malaria during pregnancy			
2	Adequate dietary intake during pregnancy			
3	Management of pregnancy experience posing threat to pregnancy state, survival of mother and child			
4	Child delivery service			
5	Neonatal care			
6	Immunization of mother and child against diseases			
7	Counseling on child spacing			
8	Education on family planning methods			
9	Family planning service			
10	Diagnosis of ailing conditions in mother and child			
11	Treatment of mother's ailing state			
12	Treatment of infant ailments like malaria and diarrhea			
13	Advise on when to wean a baby and introduction of composite food to the baby			
14	Vaccination against and treatment of diseases like measles and chicken pox in infants			
15	Treatment of infant injuries			
16	Child survival interventions like Vitamin A and de-worming			

Section D: Attitude of the respondents to MSS utilisation

Please kindly tick the options below as applicable to indicate your disposition to MSS

S/N	ATTITUDE OF RESPONDENTS TO MSS	SA	A	U	D	SD
1.	MSS has been an effective means to safeguard problems associated with pre-conception care and child bearing.					
2.	MSS offers near precise (if not precise) expected day of delivery for appropriate preparedness.					
3.	MSS provides very reliable facilities like and equipment to support safe child delivery.					
4.	MSS has significantly reduced cases of life threatening pregnancy complication causes in child bearing and pregnant women.					
5.	MSS offers satisfactory food supplements that are deficient in pregnant and nursing mothers through essential drugs.					
6.	MSS has been effective in child spacing among child bearing mothers.					
7.	MSS seems too complicated in repeated scans, antenatal and postnatal meetings for safe motherhood.					
8.	MSS hardly provide opportunity for having maternal health information not received well before marriage and formerly from patronage of traditional birth attendants by affected mothers.					
9.	MSS rarely offers proper diagnosis of ailment and treatment of diseases in pregnant and nursing mothers.					
10.	Immunisation for mother and child against diseases under MSS is safe					
11.	MSS involves many meetings with repetitive health talks to emphasize compliance and adherence to safe maternal health practices.					
12.	The ambulance services provided for referral to general hospitals are always functional.					
13.	MSS seems absolutely unsafe from adverse child bearing outcomes.					
14.	MSS seems to abolish traditional ethos of our family rites during pregnancy and child delivery which could extinct our tradition.					
15.	MSS does not prevent intermittent malaria during pregnancy as claimed.					
16.	MSS offers family planning service that reduces the number of children God plans for an individual.					
17.	MSS guarantees availability of SBAs during labour, which is safe for child delivery.					
18.	MSS increases financial expenditure of homes to recommended maternal nutrition during pregnancy and after child birth					
19.	Use of machines like ultra-scans offer more health hazards than benefits to pregnant women.					
20.	MSS provides for the best time to wean a child and introduce composite diets to the child					
21.	SBAs do not take proper care of the umbilical cord as done by traditional birth attendants.					
22.	MSS puts pregnant women through necessary physical examinations like blood pressure and urine test.					
23.	MSS often make false referral cases to scare pregnant women unnecessarily to make money from them.					
24.	MSS could make a woman infertile with recommended contraceptives for family planning.					
25.	MSS provides appropriate treatment of mother and child diseases.					
26.	SBAs give health talks that reduce psychological stress, emotional stress and anxiety to pregnant women.					

Section E: Accessibility to MSS facility

Please kindly tick the options below as applicable to indicate your accessibility to MSS

S/N	ACCESIBILITY TO MSS FACILITY	Always	Occasionally	Never
1	MSS facility is within my reach and use			
2	There is the presence of skilled birth attendants at the MSS facility			
3	Attention of skilled birth attendants to complaints and advice on pregnancy?			
4	I enjoy antenatal care at the MSS facility			
5	Neonatal care is available to infant mothers			
6	There is 24 hours qualified management service at the MSS facility			
7	There is opportunity for immunization of infants at the MSS facility			
8	There is a laboratory service for utilisation in the MSS facility			
9	Essential medical equipment and drugs are readily available for pregnant women and nursing mothers in the MSS facility			
10	Immunisation service for both mother and child at the MSS facility?			
11	Emergency blood transfusion is available at the MSS for emergency cases?			
12	Health talk between the SBAs and the pregnant women on safe child birth			
13	Provision of family planning service			
14	Provision of referral service in cases of need			
15	Provision of ambulance service for referral cases to general/tertiary hospitals			
16	Provision of infant welfare by the skilled birth attendants			

Section F: Affordability of MSS services

Please kindly tick the options below as applicable to indicate your affordability of MSS services

S/N	Affordability of MSS	Highly Affordable	Moderately Affordable	Not Affordable
1	Consultancy of the SBAs as a service delivery reward?			
2	The cost of folic acid, vitamin B supplement and other maternal supplements that give multiple micronutrients?			
3	Cost of immunization against adverse child birth outcomes?			
4	Diagnostic tests for sexually transmitted diseases, any ailment or HIV in establishing the pregnancy state?			
5	Appropriate medical treatment of any detected ailment by the SBAs?			
6	Medical attention to child birth complications?			
7	Ultrasound scan in establishing the viability of the baby and the position in the womb more than twice if there is need for it?			
8	Food supplements for the foetus not having commensurable weight with the number of gestation weeks for safe weight increase and sound baby at birth?			
9	Drugs on gestational dating for matured preterm (36 weeks) and term foetuses (40 weeks and above) to induce labour?			
10	Abstaining from some food s as recommended by the SBAs for you to have safe birth?			
11	Ambulance services in the place of emergency child birth complication referred to the general hospital?			
12	Acquiring insecticide treated net to avoid malaria?			
13	Treatment of the infant and mother in the case of pre-mature birth?			
14	Recommended personal hygiene, diet and nutrition by SBAs during pregnancy?			
15	Blood transfusion, if involved in having your child delivered at the MSS facility?			
16	Surgical delivery of the child in your womb if it is advised as the only safe option to bear the unborn child safely?			
17	Cost of infant welfare?			
18	Compliance with the neonatal care offered by SBAs for safe navel treatment after child birth?			

Section G: Effectiveness of Midwives Service Scheme

Please kindly tick the options below as applicable to indicate the effectiveness of the utilisation of MSS

S/N	EFFECTIVENESS OF MIDWIVESVSERVICE SCHEME	Highly Effective	Effective	Not Effective
1	Health talk offered for preconception and pregnant women			
2	Positive and prompt response towards pregnant women			
3	Intermittent preventive treatment of malaria			
4	Blood test conducted to diagnose diseases and ascertain health status of pregnant women			
5	Laboratory service of ultrasound scan, malaria parasite test and pregnancy test			
6	Drugs prescribed by the SBAs for treatment of diseases and sicknesses?			
7	Ready availability of drugs at the MSS facility anytime the SBAs prescribe medication for me?			
8	Care of infants and vaccinations			
9	Provision of tetanus toxoid for mothers			
10	Cutting of umbilical cord and care of umbilical cord			
11	Advice on early initiation of breast feeding and lactation stimulating mechanisms to mothers who could not lactate early for the baby to suckle breast milk			
12	Physical examination for blood pressure and urine test			
13	Vitamin A supplementation			
14	Screening and test before family planning			
15	Family planning service			
16	Birth and emergency plan			
17	Outreach service on wide coverage of vaccines as immunization programme			
18	Identification of conditions that require referral like anaemia, swollen feet or bleeding vagina			
19	Ambulance service			
20	Management of pregnancy complication cases			

Section H: Constraints to MSS

Please kindly tick the options below as applicable to indicate the constraints confronting you on MSS utilisation

S/N	Constraints	Serious constraint	Mild constraint	Not a constraint
1	Irregularity of SBAs at the MSS facility			
2	Unavailability of essential drugs and vaccines at the MSS facility			
3	Long waiting hours to see the MSS health officials			
4	Poor referral system			
5	Long distance to MSS facility			
6	Language barrier			
7	Poor attitude of midwives to patients			
8	High cost of skilled birth attendants services			
9	Poor laboratory service			
10	Poor ambulance service			
11	Inadequate water supply			
12	High cost of trimester scanning			
13	Erratic power supply			
14	Insufficient wards and mattresses for child delivery			
15	Low confidentiality in medical history shared with SBAs from being heard and known to other people			
16	Shortage of midwives personnel			
17	Strike action of midwives personnel			

Section I: Utilisation of Midwives Service Scheme (MSS)

Please kindly tick the options below as applicable to indicate the frequency of utilisation of MSS

Utilisation of MSS		Always	Rarely	Never
S/N	SKILLED BIRTH ATTENDANTS			
1	Attendance to all my pregnancy complaints			
2	Assistance of midwives in child delivery			
3	Reliability of health talk and drugs prescribed			
	ANTENATAL CARE			
4	Physical examination of blood pressure and scan			
5	Prevention and treatment of malaria			
6	Provision of routine drugs and supplements like folic acid and vitamin C			
	24 HOURS QUALIFIED MANAGEMENT SERVICE			
7	Availability of child delivery service			
8	Care of pregnant women			
9	Care of infants			
	IMMUNIZATION			
10	Provision of immunization against diseases to mother such as tetanus toxoid			
11	Immunization of children against diseases like polio and measles			
12	Provision of child survival interventions like de-worming and vitamin A			
	NEONATAL CARE			
13	Cutting of the umbilical cord safely			
14	Safe care of the navel against infection of diseases			
15	Provision of warmth			
	POST NATAL CARE			
16	Advice on early initiation of breast feeding and how to make non early lactating mothers lactate			
17	Blood pressure and Packed Cell Volume (PVC) as blood level check			

18	Weighing of infants			
	FAMILY PLANNING			
19	Counseling on child spacing			
20	Education on family planning methods			
21	Birth and emergency plan			
	OUTREACH SERVICE			
22	Enlightenment and mobilization of pregnant women in the community to use MSS			
24	Immunisation on house to house basis			
	LABORATORY SERVICE			
25	Ultrasound scan			
26	Malaria and blood level check			
	REFERRAL SERVICE			
27	Identification of required conditions for referral to general and tertiary hospitals by SBAs			
28	Management of pregnancy complications			
30	Follow up on referral cases to the general and tertiary hospitals			
	AMBULANCE SERVICE			
31	Standby ambulance service			
32	Functional ambulance service			
33	Inexpensive ambulance service			
	INFANT WELFARE			
34	Treatment of minor ailments like malaria and diarrhoea			
35	Management of childhood diseases like small pox and measles			
36	Treatment of minor injuries			

Appendix II

Focus Group Discussion with women farmers at ofada mss facility

DEPARTMENT OF AGRICULTURAL EXTENSION AND RURAL DEVELOPMENT, UNIVERSITY OF IBADAN, IBADAN

Dear respondents,

I am a student of the above named Department and my research project is on “Determinants of Midwives Service Scheme Utilisation Among Women Farmers in South Western Nigeria”. You have been selected to participate in this survey because of your importance as a child bearing woman farmer. All information supplied shall be used solely for research purpose and treated with absolute confidentiality.

Thank you for your cooperation

Focus Group Discussion Topic Guide For Women Farmers

Age: LGA

Years of farming experience _____ Other descriptive characteristics of group:

Months of utilising MSS _____

Introduction to inform participants of the purpose of the FGD

We would like to explain to you why we have gathered you together today. We are conducting a study on the Determinants of Midwives Service Scheme Utilisation Among Women Farmers in South Western Nigeria. We also want to inform you that the research is mainly for academic purpose and your responses will be confidential.

We are grateful for giving us your time to participate in the discussion. Please feel free to discuss the questions among yourselves. We want everyone to participate in the discussion. There are no right or wrong answers. We would like to record your responses so that we do not forget what you tell us. (At this point, the moderator/ note taker will introduce themselves

A. Sources of Information on Maternal health information

1. What are your sources of maternal health information?

2. Do you have preference for sourcing maternal health information through a particular source? Yes __ No _____

3. If yes, why?

4. How timely do you source maternal health information?

5. Have there been any changes in your maternal health knowledge since you have been seeking maternal health information in the last few months or years?

Yes _____ , No _____

6. If yes, what changes have occurred?

B. Respondents Attitude Towards Midwives Service Scheme

7. What has been your attitude towards Midwives Service Scheme ?

8. Why?

C. Accessibility of Midwives Service Scheme to the Respondents

9. Is the MSS facility accessible to you? Yes _____ , No _____

10. What is the proximity of the MSS facility to your residence?

11. Less than 1km radius _____ , More than 1km radius _____

12. Are the MSS services accessible to you? Yes _____ , No _____

13.If yes, mention the accessible MSS services to you

D. Affordability of Midwives Service Scheme to the Respondents

14. Are the MSS services affordable to you? Yes _____ , No _____

15.If yes, mention the affordable MSS services to you

E. Effectiveness of Midwives Service Scheme to the Respondents

16. Are the MSS services offered you by the skilled birth attendants effective?

Yes _____ , No _____

17. If yes, mention the effective MSS services to you

F. Constraints encountered in ensuring safe child delivery in the PHC

18. What are the problems you encountered in utilising MSS?

19. What can you identify as the causes of the problems?

20. Which of these problems are easy to deal with and difficult to deal with by you?

21. What are decisions have you made and what actions are you going to take on utilising MSS?

We really appreciate your patience and time. Thanks and God bless you.

Appendix III

Focus Group Discussion with Husbands at Ofada Community

DEPARTMENT OF AGRICULTURAL EXTENSION & RURAL DEVELOPMENT

UNIVERSITY OF IBADAN, IBADAN, OYO STATE, NIGERIA

Focus Group Discussion Topic Guide

Community: **LGA**

.....

Type of Group: _____ **Adult male:** _____ **Youth**_____ **Other**

descriptive characteristics of group:

Introduction to inform participants of the purpose of the FGD

We would like to explain to you why we have gathered you together today. We are conducting a study on the We also want to inform you that the research is mainly for academic purpose and your responses will be confidential.

We are grateful for giving us your time to participate in the discussion. Please feel free to discuss the questions among yourselves. We want everyone to participate in the discussion. There are no right or wrong answers. We would like to record your responses so that we do not forget what you tell us. (At this point, the moderator/ note taker will introduce themselves

Do you live in the community with your wife and children? Yes ___ No ___

If No, why?

Does your wife utilise MSS for her maternal health? Yes ___ No ___

Who decides the place your wife delivers your expectant child?

Are you aware of the need to allow your wife attend MSS? Yes ___ No ___

How involved are you in ensuring your wife utilises MSS in terms of logistics, emotional support, physical support or otherwise?

Does your involvement promote safety of your wife from maternal death and your child from mortality? Yes ___ No ___

If Yes, why?

If No, why?

How do you cease your wife from engaging in maternal risks behavior?

What are the benefits of your involvement in ensuring your wife attends MSS to your family?

What is the proximity of your house to the MSS facility?

In case of problems arising during the pregnancy period, what arrangement do you have to get your wife to the MSS facility and ensure that she and the unborn child are safe?

Do you discuss maternal issues with your wife? If yes, what maternal issues do you discuss?

Are you limited in any way from being involved in ensuring your wife utilizes MSS?

In what way are you limited?

In what other ways do you impact the utilisation of MSS by your wife?

How well do you encourage your wife to attend ante natal care/ post natal care?

What are the challenges you confront in encouraging your wife to attend antenatal care and post natal care?

How are you involved in ensuring other men are well sensitized on the need to allow their wives utilise MSS for their maternal?

What role do VDC play in getting pregnant women to use MSS?

How do you protect pregnant women in the community from maternal risks?

Appendix IV

Indepth Interview with Village Development Committee (VDC) Secretary at Orun Ekiti

DEPARTMENT OF AGRICULTURAL EXTENSION AND RURAL DEVELOPMENT, UNIVERSITY OF IBADAN, IBADAN

Dear respondents,

I am a student of the above named Department and my research project is on “Determinants of Midwives Service Scheme Utilisation Among Women Farmers in South Western Nigeria”. You have been selected to participate in this survey because of your importance as a stakeholder in the village development committee. All information supplied shall be used solely for research purpose and treated with absolute confidentiality.

Thank you for your cooperation

In depth Interview Topic Guide For Village Development Committee

Name: Community

Date: _____ Adult male: _____ Adult female _____

Years of membership in VDC _____ Other descriptive characteristics of group:

Introduction to inform participants of the purpose of the in depth interview

We would like to explain to you why we have gathered you together today. We are conducting a study on the Determinants of Midwives Service Scheme Utilisation Among Women Farmers in South Western Nigeria. We also want to inform you that the research is mainly for academic purpose and your responses will be confidential.

We are grateful for giving us your time to participate in the discussion. Please feel free to discuss the questions among yourselves. We want everyone to participate in the discussion. There are no right or wrong answers. We would like to record your responses so that we do not forget what you tell us. (At this point, the moderator/ note taker will introduce themselves

RESPONSE TO ACTIVITIES OF VILLAGE DEVELOPMENT COMMITTEE

- 1. How aware are the women farmers in this community of the activities of MSS?

2. How can you judge the child bearing women farmers maternal information seeking behaviour towards maternal health services offered by MSS? -----

3. What is your assessment of their attitude towards MSS? -----

4. How effective is MSS in this community? -----

5. How hospitable are the communal people towards the midwives?-----

6. Does the community provide assistance to pregnant women in labour to get to the PHC? Yes _____ No _____

7. If yes, how do you get the pregnant women in labour to the PHC?

8. If no, why?

9. What encourages utilisation of MSS in the community?

10. Does utilisation of MSS affect agricultural production and farm income of women farmers and farming homes in the community Yes _____ No _____

11. If yes how?

12. What are the other effects of MSS utilisation on women farmers households' food security in the community?

13. How long has the group been functional? -----

14. How many members constitute the group? -----

15. How many members are functional in the group?-----

16. What are the problems encountered by the group in discharging its support activities to the midwives and pregnant women?

17. Can the pregnant women afford the maternal health services?

Yes _____, No _____

18.If No, why?

19. How close is the MSS facility to the people in this community?-----

20. Are the pregnant women satisfied with the PHC infrastructure?

21. Are the pregnant women and nursing mothers utilising the MSS facility?

Yes_____ No_____

22. If No, why?

23. What are the existing problems to the utilisation of MSS by the women and families?

24. In your opinion, do you consider continuing usage of MSS by pregnant women and children for many years to come?

25. Yes_____ No_____

26. If No, why?

27. Do you have the right to compel pregnant women to use MSS?

Yes_____ No_____

28. How?_____

29. Are there any positive impacts judging from the operation of MSS thus far?

Yes_____ No_____

30.Explain your answer

We really appreciate your patience and time. Thanks and God bless you.