

GSJ: Volume 8, Issue 1, January 2020, Online: ISSN 2320-9186 www.globalscientificjournal.com

# PREGNANT AND POSTNATAL MOTHERS COMPLIANCE LEVEL TO 'WHO' RECOMMENDATIONS ON MATERNAL HEALTH IN COMPREHENSIVE HEALTH CENTER, OKE-IYINMI, ADO-EKITI.

Chinedu S. Ogbozor, Chisom E. Umealakei

## ABSTRACT

Maternal health is the health of women during pregnancy, child birth and the postpartum period. Every day, approximately 800 women die from preventable causes related to pregnancy and childbirth and 99% of all maternal deaths occur in developing countries. The aim of this study was to assess the compliance level of pregnant and postnatal mothers to World Health Organization (WHO) recommendations on maternal health in Comprehensive Health Center Oke-lyinmi, Ado-Ekiti. One hundred and ninety (190) participants were selected using purposive sampling technique. A semi-structured adapted questionnaire was used to assess health care seeking behavior of mothers. Data collected was analyzed using descriptive statistics. Results showed that majority (38.9%) of the participants was within the age range of 20-29 years, 63.2% were Christians and 70.0% were married. Findings also revealed that participants had poor health facilities and 37.9% of the participants had postnatal visit of three times and above. Also, barriers affecting utilization of maternal health care services were identified in which majority mentioned financial constraints (71.6%) and poor road networks (63.2%). This study provides an objective data that clearly shows the wide gap between the level of health care and WHO recommended level of health care. It also revealed the low level of maternal health care seeking behavior. Efforts should be made by healthcare professionals to create awareness and educate people on the importance of maternal health care.

#### KeyWords:

Maternal health, Pregnant mothers, Childbirth, Postnatal mothers, Health care seeking, Antenatal care

# Introduction

Antenatal care (ANC) is the attention, education, supervision and treatment given to the pregnant mother from the time conception is confirmed until the beginning of labor, in order to ensure safe pregnancy, labor and parturition (Haque, Dash & Muhammad, 2016). The World Health Organization (WHO) recommends four ANC visits, delivery in a health facility and three postnatal care (PNC) visits for women to optimize the maternal health outcomes (Islam &Masud, 2018). According to Islam and Masud (2018), the WHO guidelines complement other recommendations on maternal, perinatal and newborn health, as well as those recommendations on which type of health care worker can safely deliver key maternal and newborn health care interventions, which went through a similar guidelines development process.

Pre-natal period is the period when pregnancy is confirmed to the beginning of labor. According to Ononokpono (2013), prenatal care also known as ANC reduces maternal and perinatal morbidity and mortality both directly, through detection and treatment of pregnancy-related complications, and indirectly, through the identification of women at increased risk of developing complications during labor and delivery, thus ensuring efficient referral to an appropriate level of care. Mazumder (2016) stated that the antenatal period is critically important for reaching women with interventions and information that promote health, wellbeing and survival of mothers as well as their babies; the coverage of at least one visit with a doctor, nurse or midwife has progressively increased in developing regions from 63% in 1990 to 71% in 2000, and then to 80% in 2010. In Ethiopia, according to the Kifle, Azale, Gelaw and Melsew (2017), the percentage of women with at least one ANC visit by a health professional was only 28% in 2005 and 33% in 2011 and only 19% had four ANC visits as recommended by the WHO.

Intra-natal care is the care given to the mother and baby at the time of delivery; it is majorly aimed at cleanliness, smooth delivery without injuring mother or baby, preventing complications and delivery resuscitation for the baby (Kim & Lee, 2015). Worldwide, about 140 million women give birth every year (Chowdhury, Al-Hadhrami & Harun, 2017). While much is known about the clinical management of labor and childbirth, less attention is paid to what beyond clinical interventions needs to be done to make women feel safe, comfortable and positive about the experience (Haque, Dash & Muhammad, 2016).

Postnatal care is essential for 6-8 weeks after the baby is born as it involves the mother going through a number of physical and emotional changes (Jain *et al.*, 2017). The postnatal period is a critical phase in the lives of mothers and newborn babies. Major changes occur during this period which determines the well-being of mothers and newborns but yet, this is the most neglected time for the provision of quality care services (Kifle *et al.*, 2017). Tarekgn, Lieberman, Qureshi and Giedraitis (2014) reported that worldwide, approximately 800 women die every day from preventable causes related to pregnancy and childbirth; in 2010, about 287,000 women died worldwide during and following pregnancy and childbirth, though this is a decline of 47% from the 1990 level, it is still far from the 2030 Sustainable Development Goal (SDGs).

Salve, Charlette, Kankaria, Rai and Krishnan (2017) argued that despite proven interventions that could prevent death or disability during pregnancy and childbirth, maternal mortality remains a major burden in many developing countries. Maternal mortality continues to be a major challenge in Africa and the maternal mortality disparity between developing and developed countries is very high (Kohli, Kishore, Sharma & Nayak, 2015). The maternal mortality ratio (MMR) in developing regions is 15 times higher than in the developed regions and sub Saharan African countries have the highest MMR in the world with an average of 500 maternal deaths per 100,000 live births, accounting for half of the world's total maternal deaths and also, most women die because they give birth without the attendance of a skilled health worker (Salve *et al.,* 2017).

Tarekgn *et al.*, (2014) maintained that high maternal, neonatal and child mortality rates are associated with inadequate and poorquality maternal health care. Moreover, evidences also show that health care before, during and after childbirth saves the lives of women and newborn babies (Haque, Dash & Muhammad, 2016). An estimated 74% of maternal deaths could be averted if all women had access to the interventions for preventing or treating pregnancy and birth complications, in particular emergency obstetric care; as a result, the use of ANC, skilled delivery attendants and PNC are recognized as key maternal health services to improve health outcomes for women and children (Chowdhury, Al-Hadhrami& Harun, 2017). This study examines the compliance level of pregnant and postnatal mothers to WHO recommendations on maternal health in Comprehensive Health Center Oke-Iyinmi, Ado-Ekiti.

## Objectives

The aim of this study is to investigate the health care seeking behavior of mothers during pregnancy, delivery and the postnatal period in Comprehensive Health Center Oke-Iyinmi, Ado-Ekiti and to assess the level of compliance with the WHO recommended levels of care.

# Methodology

## **Research Design**

A descriptive design was employed using quantitative approach to assess pregnant and postnatal mother's compliance level to WHO recommendations on maternal health in Comprehensive Health Center Oke-Iyinmi. The study design was found to be appropriate to

observe, describe and document the health care seeking behavior of mothers. Hence, this study used a quantitative design to gather information regarding pregnant and postnatal mother's compliance level to WHO recommendations on maternal health in Comprehensive Health Center Oke-Iyinmi.

# **Sampling Technique**

Purposive sampling technique was used in this study. In purposive sampling technique, participants provide information based on their knowledge and experience. Also, the study focused on compliance level of pregnant and postnatal mothers. Thus, participants who met the inclusion criteria were invited to participate in the study. The total population involves 190 participants.

# **Method of Data Collection**

The data was collected using questionnaire that was self-administered; the questionnaire was made as simple and clear as possible with the targeted sections and questions. The researcher visited comprehensive health center Oke-Iyinmi, Ado-Ekiti for data collection. Mothers were met on antenatal and postnatal clinic days, Tuesdays and Wednesdays respectively; mothers who were willing to participate and were attending antenatal and postnatal clinic were invited to participate in the study. Each participant was informed about the purpose of the study and guidelines for the completion of the questionnaire was explained to the participants and asked to tick where appropriate. Data was collected for three weeks; the questionnaires were administered to One hundred and ninety (190) women attending antenatal and postnatal clinic in Comprehensive Health Center Oke-Iyinmi, Ado-Ekiti

# **Method of Data Analysis**

The data collected was analyzed using descriptive statistics. Descriptive statistics was calculated as frequencies, percentages and means. The data collected was analyzed with the use of tables, frequency charts and percentages, which were interpreted and conclusions were drawn as appropriate.

# **Ethical Considerations**

Ethical approval to conduct this research was obtained from the Department of Nursing Science, Afe Babalola University, Ado-Ekiti. Also, ethical approval to conduct the study was obtained from the Chief Matron of the Comprehensive Health Centre, Oke-Iyinmi. The participants were informed about the nature of the study and what findings needed to be obtained and thus informed consent was obtained. Privacy and anonymity were ensured as the name of the participants or any form of identity was not required in the guestionnaire and information supplied by the participants could not be traced back to them on the compiled data.

## Result

# Socio Demographic Characteristics of Participants

#### Table 4.1: Socio demographic characteristics of participants

Variables	Attributes	Frequency	Percentage	
		(n=190)	(%)	
	15-19yrs	19	10.0	
0.75	20-29yrs	74	38.9	
Age	30-39yrs	63	33.2	
	40yrs and above	34	17.9	
	Christian	120	63.2	
	Muslim	49	25.8	
eligion	Traditional	11	5.8	
	Others	10	5.3	
	Hausa	23	12.1	
	Igbo	23	12.1	
Ethnicity	Yoruba	101	53.2	
	Others	43	22.6	
	Single	23	12.1	
	Married	133	70.0	
Marital Status	Separated	12	6.3	
	Divorced	6	3.2	
	Widow	16	8.4	
	No education	6	3.2	
	Primary	14	7.4	
Educational Status	Secondary	80	42.1	
	Tertiary	67	35.3	
	Postgraduate	23	12.1	
	Unemployed	32	16.8	
	Self employed	79	41.6	
Occupation	House wife	33	17.4	
	Civil servant	33	17.4	
	Others	13	6.8	
	N10,000-N20,000	96	51.1	
	N21000-N40,000	52	27.7	
Monthly Income	N41000-N60,000	27	14.4	
	N61000-N80000	7	3.7	
	81000 and above	6	3.2	

Table 4.1 shows the socio-demographic characteristics of participants. From the 190 participants recruited, participant's age shows that 38.9% are within the age range of 20-29 years, while 17.9% are 40 years and above. More than half (63.2%) of the participants are Christians, while 25.8% are Muslims. Data shows that more than half (53.2%) of the participants are Yoruba's and 12.1% are Igbo's. Vast majority (70.0%) of participants is married; it was observed that 42.1% are educated up to the secondary level while 35.3% are educated up to the tertiary level. Participant's occupation shows that 16.8% are unemployed while 41.6% are self-employed. Furthermore, 51.1% of the participants earn between N10,000 - N20,000 monthly while 3.7% earn between N61,000-N80,000 monthly.

# Health Care Seeking Behavior of Mothers during Pregnancy

#### Table 4.2: Health care seeking behavior of mothers during pregnancy

Variables	Attributes	Frequency	Percentage
		(n=190)	(%)
Antonatal care visit at the time of last programs	Yes	151	79.5
Antenatal care visit at the time of last pregnancy	No	39	20.5
	1st trimester	36	18.9
Month of registration	2nd trimester	51	26.8
Month of registration	3rd trimester	39	20.5
	Don't remember	36 51 39 64 115 19 34 22 42 55 41 55 41 52 162 28 55 79 56 156 34	33.7
	Health facility	115	60.5
Source of antenatal care	Pharmacy	19	10.0
Source of antenatal tale	Home	34	17.9
	Others	(n=190) 151 39 36 51 39 64 115 19 34 22 42 55 41 52 162 28 55 79 56 156 34 151 39 129 61 127 63 106	11.6
	Once		22.1
Frequency of visit to health centre	Twice	55	28.9
	Thrice	41	21.6
	More than thrice	52	27.4
Antenatal check-ups done	Yes	151   39   36   51   39   64   115   19   34   22   42   55   41   52   162   28   55   79   56   156   34   151   39   129   61   127   63	85.3
Antenatal check-ups done	No		14.7
	Doctor	55	28.9
Conducted by	Nurse/Midwife	79	41.6
	Others	(n=190)   151   39   36   51   39   64   115   19   34   22   42   55   41   52   162   28   55   79   56   156   34   151   39   129   61   127   63   106	29.5
Maternal and fetal assessment done			82.1
שומנכווומו מווע וכנמו מספפסטווכווג עטווכ	No	(n=190)   151   39   36   51   39   64   115   19   34   22   42   55   41   52   162   28   55   79   56   156   34   151   39   129   61   127   63   106	17.9
Nutrition and nutritional supplements such as Iron, Folic acid, calcium,	Yes		79.5
vitamin and Zinc supplements	No	39	20.5
Preventive measures including the use of antibiotics, vaccination and	Yes	129	67.9
malaria prevention	No		32.1
Health education	Yes	127	66.8
	No	63	33.2
Knowledge about programou complication	Yes	106	55.8
Knowledge about pregnancy complication	No	84	44.2

Table 4.2 show health care seeking behaviors of mothers during pregnancy. It was reported by majority (79.5%) of the participants that they had antenatal care visit at the time of their last pregnancy. A little above one quarter (26.8%) of participants registered for antenatal care during their second trimester, while 20.5% registered for antenatal care during their third trimester. Majority (60.5%) of the participants received antenatal care from health facility while17.9% reported that home was their source of antenatal care. It was disclosed that 28.9% visited the health centre twice; while27.4% visited the health centre more than thrice. Also, majority (85.3%) of the participants had antenatal checkups done. More than half (55.8%) of the participants had knowledge about pregnancy complication.

# Health Care Seeking Behavior of Mothers during Delivery

Variables	Attributes	Frequency	Percentage
		(n=190)	(%)
	Primigravida	51	26.8
Number of programmy (Crowidity)	2-3	81	42.6
Number of pregnancy (Gravidity)	4-5	30	15.8
	6 and above	28	14.7
	1-2	67	35.3
Number of children	3-4	73	38.4
	5-6	27	14.2
	Above 6	23	12.1
	Health facility	100	52.6
	Home	36	18.9
Place of delivery	Traditional birth home	27	14.2
-	Mission home	20	10.5
	Others	7	3.7
	Doctor	45	23.7
Joalth caro providor	Nurse/Midwife	79	41.6
Health care provider	Traditional birth attendant	46	24.2
	Others	20	10.5
Knowledge of Expected date of Deliver (EDD)	Yes	103	54.2
	No	48	25.3
	Not sure	39	20.5
Dbstetric complication during child birth	Yes	83	43.9
Disterne complication during child birth	Νο	106	56.1

#### Table 4.3: Health care seeking behaviors of mothers during delivery

Table 4.3 shows the health care seeking behaviors of mothers during delivery. It was observed that 18.9% of participants delivered at home, 14.2% of the participants at traditional birth home, while 10.5% reported their place of delivery was a mission home. It was reported by 24.2% of the participants that their health care provider was a traditional birth attendant; It was also observed that almost half (43.9%) of the participants had obstetric complication during child birth.

# Health Care Seeking Behavior of Mothers during Postnatal Period

#### Table 4.4: Health care seeking behaviors of mothers during the postnatal period

/ariables	Attributes	Frequency	Percentage
		(n=190)	(%)
Destructed, visit often delivery	Yes	143	75.3
Postnatal visit after delivery	No	47	24.7
	Health facility	117	61.6
	Pharmacy	21	11.1
Source of postnatal care	Home	38	20.0
	Others	14	7.4
	1 time	66	34.7
Frequency to visit to health centre	2 times	52	27.4
	3 and above	72	37.9
	Doctor	58	30.5
Postnatal care provider	Nurse/Midwife	93	48.9
	Others	39	20.5
Postnatal care for mother	Yes	130	68.4
Postnatal care for mother	No	60	31.6
	Assessment of mother 60	60	39.7
	Counselling on infection prevention	37	24.5
	Iron and folic acid supplement	87	57.6
Types of services during postnatal care for mother	Prophylactic antibiotics	69	45.7
es of services during postnatal care for mother	Psychological support	10	6.6
	Home visit for postnatal care	11	7.3
	Mobilisation, rest and exercise	143   47   117   21   38   14   66   52   72   58   93   39   130   60   60   60   60   60   60   60   60   60   60   60   60   60   130   60   130   60   130   60   130   60   130   60   10	18.5
Postnatal care for child	Yes	162	85.3
	No		14.7
	Assessment of the baby	92	52.3
Type of postnatal service for child	Exclusive breast feeding	83	47.2
ype of postilatal service for child	Cord care	40	22.7
	Vaccination of babies	115	65.3

Table 4.4 shows the health care seeking behaviors of mothers during the postnatal period. Majority (75.3%) of the participants had postnatal visit after delivery; it was reported by 61.6% of the participants that their source of postnatal care was a health facility, 11.1% reported it was a pharmacy. Also, it was reported by 37.9% of the participants that their frequency to visit the health center was once while 27.4% of the participants reported that it was twice. Majority (68.4%) of the participants received postnatal care for mother. It was reported by majority (85.3%) of the participants that they received postnatal care for child.

#### Table 4.5: Barriers encountered by mothers in assessing and utilizing maternal health care services

/ariables	Attributes	Frequency (n=190)	Percentage (%)
	Far from home	87	45.8
	Bad roads	45	23.7
. ,	Not seeking health care	58	30.5
	Doctors not responsive	67	35.3
	Non-availability of ambulance	64	33.7
Quality of care	Non-availability of female health provider	59	31.1
	Husbands restriction	52	27.4
Knowledge and perception	Hesitation	72	37.9
	Ignorance	66	34.7
	Cost of transportation	57	30.0
Economic cost	cost of drugs	45	23.7
	-	88	46.3
	Long queue	78	41.1
Social structure		70	36.8
	Heavy workload	42	22.1
	Intended	103	54.2
Desire for the pregnancy	unplanned	52	27.4
	Non-response	35	18.4
Does your spouse/partner influence your decision to seek medi-	Yes	119	62.6
cal care	No	71	37.4
Does your mother in law influence your health care seeking be-	Yes	102	53.7
		88	46.3
Doos religion influence your health care socking head-view	Yes	113	59.5
Does religion influence your health care seeking behaviour	No	77	40.5
Does your culture influence your health workers affect your deci-	Yes	112	58.9
sion on receiving care and attending antenatal clinics	No	78	41.1
Does the attitude of health workers affect your decision on re-	Yes	115	60.5
ceiving care and attending antenatal clinics	No	75	39.5
Has financial constraints influenced your health care seeking be-	Yes	136	71.6
naviour	No	54	28.4
Has poor road networks influenced your accessibility to the	Yes	120	63.2
health facility	No	70	36.8

Table 4.5 shows barriers encountered by mothers in assessing and utilizing maternal health care services. It was revealed that almost half (45.8%) of the participants reported far from homes, while 23.7% reported bad roads. It was observed that 35.3% of the participants reported doctors are not responsive, 33.7% reported non-availability of ambulance, and 3.1% reported non-availability of female health provider. It was also observed that 27.4% of the participants reported that husband's restriction was a barrier, 37.9% reported hesitation, and 46.3% reported income level.

# Discussion

# Socio-Demographic characteristics of participants

With regards to socio and demographic characteristics of participants recorded, majority (38.9%) of the participants were between ages 20-29, these findings were consistent with previously conducted study where majority (39.2%) of participants were 20-29 years of age (Rashidul, Ubgdul & Awlad, 2014). In regards to religion majority (63.2%) of participants were Christians and the minority (5.3%) identified with others as their religion. In terms of ethnicity majority (53.2%) of participants were Yoruba and the minority (12.1%) were Hausa. With regards to marital status, 70.0% of the participants are married, 12.1% are single, 6.3% are separated, and

3.2% are divorced. These findings are similar with findings from previous research in which majority (72.4%) of the participants are married, 11.7% are single, 3.4% divorced, 7.0% are separated and 8.4% widowed (Jain *et al.*, 2017). With regards to educational status, 42.1% of participants had complete secondary education, 7.4% are educated up to the primary level, and 12.1% are educated up to the postgraduate level, while 3.2% had no formal education. Majority (41.6%) of the participants are self-employed. Analysis also revealed that more than half (51.1%) of the participants earn between N10,000-N20,000 monthly, 27.7% earn between N21,000-N40,000 monthly, 14.4% earn between N41,000-N60,000 monthly, 3.7% earn between N61,000-N80,000 monthly, the remaining 3.2% earn 81,000 and above monthly. This is similar to findings from a previous research in which more than half (55.4%) of participants earned N20, 000 and below per month, and 16% earned above 50,000 per month (Kifle *et al.*, 2017).

# Health care seeking behavior during pregnancy

There is poor health seeking behavior during pregnancy, as very few (18.9%) of the mothers registered for antenatal during their 1st trimester as recommended by WHO; also only 27.4% of the mothers had more than three antenatal visit as recommended also by WHO. Majority(79.5%) of the participants had antenatal care visit at the time of their last pregnancy, this is in contrast with previous-ly conducted studies where majority (46.0%) of the participants had antenatal care visit at the time of last pregnancy (Chowdhury, Al-Hadhrami & Harun, 2017). Furthermore, 18.9% of participants registered for antenatal care during their first trimester, 26.8% registered for antenatal care during their second trimester while 20.5% registered for antenatal care during their first trimester. Findings here correlated with previously conducted study where 20.1% of participants registered for antenatal during their first trimester. Findings here correlated during second trimester (Moran *et al.*, 2017). Majority (60.5%) of the participants reported that health facility was the source of their antenatal care, 10.0% reported that pharmacy was the source of their antenatal care, 17.9% reported that home was their source of antenatal care, the remaining 11.6% reported other sources such as mission home and dispensary, not listed in the questionnaire. However, findings co-related with a previous study by Kifle *et al.*, 2017, where majority 60.8% of the participants identified health facility as their source of antenatal care. Majority (85.3%) of the participants had antenatal checkups done; more than half (55.8%) of the participants had knowledge about pregnancy complication due to their antenatal visits. This was not in line with previously conducted study, where less than half (48.0%) of the participants had antenatal checkups done (Haque, Dash & Muhammad, 2016).

# Health care seeking behavior during delivery

Results showed that majority (52.6%) of the participants delivered their babies in a health facility, 18.9% delivered at home, 14.2% delivered in a traditional birth home, 10.5% delivered in a mission home, the remaining 3.7% reported other places such as car, market and field, not listed in the questionnaire. This was contrary to previously conducted study where deliveries in health facilities, traditional birth homes and mission homes were 37.0%, 52.8% and 10.2% respectively (Kruk *et al.*, 2015). Majority (41.6%) of the participants reported that their care provider was a nurse/midwife, 23.7% identified doctor as their care provider, 24.2% identified traditional birth attendants as their care provider, while 10.5 identified other health care providers such as relatives, neighbors and mother in-law, not listed in the questionnaire. Findings here correlated with previously conducted study where a little above one quarter (25.2%) of the participants identified traditional birth attendants as their care provider traditional birth attendants as their care provider (Chowdhury, Al-Hadhrami & Harun, 2017). Furthermore, it was revealed that majority (54.2%) of the participants have knowledge of their Expected Date of Delivery (EDD) and as such can make plans for birth preparedness and emergency complications, this is similar to a previously conducted study where half (50.0%) of the participants had knowledge of their EDD (Ononokpono, 2013). Less than half (43.9%) of the participants stated that they had obstetric complications during child birth.

## Health care seeking behavior during postnatal period

Majority (75.3%) of the participants reported that they had postnatal visit after delivery. This is in agreement with previously conducted studies where majority (65.0%) of the participants had postnatal visit (Kifle *et al.*, 2017). Majority (61.6%) of the participants reported that their source of postnatal care was a health facility, 11.1% reported it was a pharmacy, while 20.0% reported it was home. Only 37.9% of the participants visited the health center three times and above. However, findings here correlated with previously conducted study where majority (57.2%) of the participants identified health facility as their source of care (Tarekgn *et al.*, 2014). Almost half (48.9%) of the participants identified nurse/midwife as their postnatal care provider. Also, the major postnatal service for the children reported in this study is vaccination of babies 65.3%, followed by assessment of the baby 52.3%, and the least postnatal service reported is cord care 22.7%. Findings from this study were once again in line with findings from a similar study, as the majority (79.4%) of participants identified vaccination of babies as the most postnatal care service for children (Islam &Masud, 2018).

## Barriers encountered by mothers in assessing and utilizing maternal health care services

The final section of the research questionnaire collected data on barriers encountered by mothers in assessing and utilizing health care services, result obtained from this study identified that there are indeed many barriers that are associated with utilization of maternal health care. The major barrier identified from this study is the financial constraints of participants 71.6%, followed by poor road networks 63.2%. It was observed that among those that reported distance and physical assess as barriers, 45.8% of the participants reported far from homes, while 23.7% reported bad roads. This was in agreement with previously conducted study where half (50.0%) of the participants reported far frim homes (Kifle et al., 2017). In terms of quality of care as a barrier, majority of the participants (33.7%) reported the non-availability of ambulance and (35.3%) reported that doctors were not responsive. This was not in line with previously conducted studies where only 5.6% identified non-availability of ambulance as a barrier (Dutta & Sengupta, 2018). Assessing the economic cost barrier encountered, majority of the women reported that their income level (46.3%) as well as cost of transportation (30.0%) was a major barrier to utilizing maternal health care services. Contrary to this finding, reported in a similar study revealed that 15.6% of the participants identified income level as a barrier while 10.2% identified the cost of transportation (Alkali & Hussain, 2016). The problem of long queue was also reported by the women as a social structure barrier for utilizing the maternal health care services. Furthermore, the participants reported significant influence on their decision to seeking medical care from spouse/partners (62.6%), mother in law (53.7%), religion (59.5%), culture (58.9%), and attitude of care workers (60.5%). This was in line with previously conducted study where majority (65.0%) of the participants identified religion and 72.4% identified attitude of health workers as a barrier (Clark, 2016).

## **Relationship of Research Findings with Literature**

Maternal health care service has been among the most important interventions to decrease maternal morbidity and mortality, through regular utilization of maternal health care services (Kifle *et al.*, 2017). The health of women during their pregnancy and delivery is vital for the mother and their children. To keep the health and safety of mothers at all levels, there are services to be provided during pregnancy, during labor and delivery, and after delivery (Chowdhury, Al-Hadhrami & Harun, 2017). Due to the great need of maternal health care services, many studies aim to measure mother's utilization of health care services as different factors have been found to be related with the utilization of maternal health care services. Generally, the associated factors can be categorized as socio-economic and demographic factors such as; educational status of the mother, maternal age, occupation, mother's knowledge of danger signs, marital status, women's autonomy, birth order, religion, sex of household head, household income, household size, husband's educational status, accessibility factors and factors related with women's perceived quality of maternal health care services (Jain *et al.*, 2017).

Tarekgn *et al.*, (2014) and Dutta & Sengupta, (2018) emphasized that in Nigeria, mothers are more likely to prefer Traditional Birth Attendants (TBAs) due to greater accessibility, lower cost and more convenience. According to the Clark (2016), at least 20% of the disease burden in children under 5 is related to problems in maternal health and malnutrition, as well as the quality of care at delivery and during the newborn period. The risk of a woman living in a developing country dying from a pregnancy-related cause throughout life is about 36 times higher compared with a woman living in a developed country (Tarekgn *et al.*, 2014).

Ethnicity and religion are often thought to influence beliefs, norms and values in relation to pregnancy, childbirth and utilization of services (Kifle *et al.*, 2017). In this study, Christian and Muslim women were more likely to use maternal health services than traditional and other religions. This result is consistent with other studies. This may be because women with traditional religion may have less modern processes of maternal health care and more inclined to traditional beliefs. According to Mazumder (2016), physical accessibility is one of the most important variables in health service utilization as several studies have identified that physical proximity of health care services plays an important role in service utilization.

#### Limitations of the Study

This study was limited to women attending antenatal and postnatal clinics in Comprehensive Health Center Oke-Iyinmi, Ado-Ekiti. The researcher encountered certain difficulties in the course of this research and they include: the challenging terrain to access the community examined. Some of the responses given by the respondents may have been estimations or even exaggerations since there was no means of validating the response given.

#### Conclusion

This research study has highlighted significant results in pregnant and postnatal mother's compliance level to WHO recommendations on maternal health in Comprehensive Health Center Oke-Iyinmi, Ado-Ekiti. The study revealed that there is poor health seeking behavior during pregnancy, which appreciated during delivery as majority of the women resorted to delivering at medical health facilities under the supervision of a certified medical doctor/Nurse/Midwife. Health seeking behaviors of mothers during postnatal period also shows a positive response as majority of the women visited qualified health care providers during postnatal visits. The major postnatal service for the children reported was vaccination of their babies. The study shows that most of the mothers encountered several barriers in assessing and utilizing maternal health care services. The major barriers were finance and poor road networks constraining their health care seeking behavior. The study also shows that there is significant difference in the health care seeking behavior based on the educational qualification of mothers in Comprehensive Health Center Oke-Iyinmi, Ado-Ekiti.

# **Suggestions for Further Research**

- This study showed that cost was a barrier encountered by mothers in assessing and utilizing maternal health care services in Comprehensive Health Center Oke-Iyinmi. There is a need to further investigate if similar situations exist in other local government areas, especially those with similar socio-economic statuses. This will significantly improve the ability of the state government to improve on maternal and child health outcomes through the design of appropriate programmes.
- A comparative study between rural and urban health facilities should be investigated for further help in policy and strategic planning by the Ministry of Health.

## References

- [1] Alkali, M., & Hussain, S. (2016). Challenges of Women Access to Maternal Health Services in Nigeria: Implications for Community Development. International Journal of Innovative Education Research, 4 (3), 2354-2942.
- [2] Chowdhury, H.A., Al-Hadhrami, A.Y., & Harun, G.D. (2017). Antenatal and postnatal care practices among mothers in rural Bangladesh: A community based cross-sectional study. *Journal of midwifery*, 64(6), 0266-6138.
- [3] Clark, O. (2016). Maternal Health: The importance of caring for mothers is a crucial factor in the health of children. BioMed CentralJournal of maternal health, 71(3), 502-512.
- [4] Darega, B., & Dida, N. (2015). Challenges of Maternal Health Services Utilizations and Provisions from Health Posts in Bale Zone, Southeast Ethiopia: Qualitative Study. Journal of Primary Healthcare, 5(189), 2167-1079.
- [5] Dutta, P., & Sengupta, B. (2018). Barriers of Maternal Health Seeking Behavior: A Bayesian Analysis. Journal of Women's Health Care, 7(439), 2167-0420.
- [6] Haque, M.A., Dash, S.K., & Muhammad, A.B. (2016). Maternal health care seeking behavior: the case of Haor in Bangladesh. BioMed CentralJournal of Public Health, 16(592), 1101-1110.
- [7] Islam, M.M., & Masud, M.S. (2018). Health care seeking behavior during pregnancy, delivery and the postnatal period in Bangladesh: Assessing the compliance with WHO recommendations. *Journal of midwifery*, 64(6), 0266-6138.
- [8] Jain, A., Singh, S., Choundary, A., Ashish, J., and Alok, C. (2017). Maternal Health-care seeking behavior in North India. Journal of Family Medicine and Primary Care, 6(2), 265-259.
- [9] Kohli, C., Kishore, J., Sharma, S., & Nayak, H. (2015). Knowledge and practice of accredited social health activists for maternal healthcare delivery in Delhi. *Journal of Family Medicine* and Primary Care, 4, 359-363.
- [10] Kifle, D., Azale, T., Gelaw, Y.A., & Melsew, Y.A. (2017). Maternal health care service seeking behaviors and associated factors among women in rural Haramaya District, Eastern Ethiopia: a triangulated community-based cross-sectional study. *Reproductive Health journal*, 14(6), 1742-4755
- [11] Kim, H.K., & Lee, M. (2015). Factors associated with health services utilization between the years 2010 and 2012 in Korea: using Andersen's Behavioral model. *Journal of Public Health*, 7(1), 18-25.
- [12] Kruk, M., Rockers, P., Mbaruku, G., Paczkowski, M., & Galea, S. (2015). Community and health system factors associated with facility delivery in rural Tanzania: A multilevel analysis. *Health Policy*, 97(2), 209–216.
- [13] Mazumder, M.N. (2016). Utilization of maternal health care services among the karbis of Guwahati City. Indian Journal of Research, 4(5), 404-406.
- [14] Moran, A.C., Peter, J.W., Nighat, S., Nahid, K., Kazi, M., & Marge, K. (2017). Patterns of maternal care seeking behaviors in rural Bangladesh. Journal of Tropical Medicine and International Health, 12(7), 823–832.
- [15] Ononokpono, N.G. (2013). Determinants of maternal health seeking behavior in Nigeria: A multilevel approach. Journal of Pregnancy and Childbirth, 9(1), 113-118.
- [16] Salve, A.O., Charlette, P., Kankaria, M., & Krishnan, S. (2017). Determinants of postnatal care use at health facilities in rural Tanzania: multilevel analysis of a household survey. *Reproductive Health journal*, 44 (67), 142-155.
- [17] Tarekegn, S.M., Lieberman, L.S., Qureshi, R., & Giedraitis, V. (2014). Determinants of maternal health service utilization in Ethiopia: analysis of the 2011 Ethiopian Demographic and Health Survey. Journal of Pregnancy and Childbirth, 14(161), 1721–1735.