

Original Article

## Determinants of Modern Contraceptives Utilization among Women of Reproductive Age in Rural Community, Osun State, Nigeria

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### Abstract

**Background:** Modern contraceptives is the most cost-efficient and affordable programme for reduction in maternal and child morbidity and mortality rate. This is due to the fact that most of the factors responsible for increased maternal and child morbidity and mortality rate hinge on poor utilization of modern contraceptives.

**Objective:** To identify those factors that serve as determinants of modern contraceptives utilization among women of reproductive age in rural community.

**Methodology:** A descriptive research survey design was used with convenient sampling to select the sample size (n= 206). A self-developed structured questionnaire was used to collect data. Tables, percentages and cross tabulation were used to analyzed data collected.

**Result:** Data from the table showed that women of reproductive age in rural community had good knowledge about modern contraceptives but its utilization was very low. Demographic characteristics, socio-economic status, cultural norms and values were identified as determinants of modern contraceptives utilization. In addition Myth and misconception that modern contraceptives do not promote sexual satisfaction and women that utilize modern contraceptives are likely to be promiscuous were also identified as determinants of modern contraceptives utilization.

**Conclusion:** The health care provider in rural community should continue to create awareness on modern contraceptives and dispel cultural myth and misconception that influence utilization of modern contraceptives

**Keywords:** Determinants, Modern Contraceptives, Reproductive Age, Rural Community

### Introduction

Utilization of modern contraceptives by women of reproductive age is the key strategy to prevent unintended pregnancies, improve women's health and reduce maternal and child morbidity and mortality rate. Deliberate action or effort made by individuals or couples to space and limit their pregnancies with the use of modern contraceptives

has direct impact on their health, well-being and even the outcome of each pregnancy as well as the quality of life of women of reproductive age (WHO, 2015). According to WHO (2017), increased maternal and child morbidity and mortality rate have been a long term problems facing most of the developing countries including Nigeria most especially rural community which is

attributed to low utilization of modern contraceptives.

Federal Ministry of Health, based on 2013 National Population Survey, reported that Nigeria recorded the overall national maternal death rate of 545/100,000 live birth variations in different state, region, urban and rural settings (National Population Commission, 2015). United Nation Population Fund (UNPF, 2015) also reported that about 287,000 women of reproductive age died annually as a result of pregnancy and birth related complications, most especially from developing countries which would have been averted through effective utilization of modern contraceptive services.

Modern contraceptive is widely acknowledged as an important intervention towards achieving Millennium Development Goals (MDGs) four (4) and five (5) as it has proven to reduce maternal and child mortality (Eliason, Awooner-william, Eliason, Nivigon & Alkin, 2016). Moreso, utilization of modern contraceptives can significantly reduce the cost of achieving selected sustainable development goal and reduce maternal and child morbidity and mortality rate (Lozano, Wang, Foreman, Rajaratnam, Naghavi, Marcus, et al., 2017). World Health Organization (2017) stated that the benefits of family planning have become increasingly recognized worldwide, including improved health, economic, and social outcomes for women and families both at the population-level and at the individual-level. In addition, the health benefits for women and infants include the prevention of pregnancy related health risks and deaths in women, reduction in infant mortality and the rate of unsafe abortions.

Similarly WHO (2015) emphasized that women who are using modern contraceptives to prevent unplanned pregnancies, reduce the number of abortions and lower incidence of death and disability related to pregnancy and childbirth complications.

Agbo, Chikaike & Okeahialam (2015) documented that the total fertility rate in some Nigerian rural communities is higher than that in urban communities, a situation that has been made worse by low contraceptive prevalence in rural communities. Most women's contraceptive knowledge and utilization are influenced by

several factors which make it extremely difficult or impossible for these women to take decisions concerning their health including choice of family planning (Agbo *et al.*, 2015; Beekle & McCabe, 2016).

Nyanchi (2015) in the study conducted in rural Kenya, found that a rural woman's level of education was inversely associated with her level of unmet need for family planning. A study in rural western Kenya also showed that rural women had low perception regarding modern family planning services offered by Community Health Workers (Keesara, Juma & Harper, 2015)

In another study in rural Ghana, it was found that perception of partner acceptability was a strong predictor of intention to use postpartum family planning (Adeyemi, Olugbenga- Bello, Adeoye, Salawu, Aderinoye & Agbaje, 2016). Rural women are known to show reluctance towards utilization of modern methods of family planning (Beekle, McCabe, 2006) due to fear of both primary and secondary infertility (Ochako,mbondo, Aloo, Kaimenyi, Thompson, Temmerman & Kays, 2015).

Some of the barriers associated with low uptake of contraceptives in the developing countries include poor physical access to the provider and time constraints, type of community (remoteness of communities), poverty, illiteracy, poor co-ordination of family planning programs, and negative cultural and religious beliefs (Amantie, Abera, & Abdulahi, 2016). Most of these factors vary from one zone to another, between and within developing countries.

The consequences of low uptake of family planning services, which are primarily related to maternal morbidity and mortality, are a persistently high total fertility rate of 5.5 per woman and an unmet need for family planning of 16% among married women in Nigeria (NPC, 2014). One of the key determinants of contraceptive use in Nigeria is female education. In a study in Osun State, Nigeria, it was found that respondents' educational status, occupation of the partner, communication with the spouse regarding contraceptive use, and approval of a contraceptive method were significant determinants of use of at least one modern contraceptive method (Oyedokun. 2007).

In furtherance to this, Endriyas, Eshete, Mekonnen, Misganaw, Shiferaw and Ayele (2017) found that contraceptive utilization is affected by various myth and misconceptions ranging from fear of side effect to associated death of a woman with contraceptive use.

Some women believe menstruation as a sign of being healthy and added that if menstruation decreases or disappears, the dirty blood would accumulate and can cause cancer. Endriyas et al. (2017) also discovered that some women believe that young women should not use contraceptives before their first pregnancy because it can lead to in ability to conceive again. Such myth and misconception were also reported by (Ankomah, Anyati, Adebayo & Giwa, 2018).

Moreso, Sushela, Jacqueline and Ashford (2015) reported that women in the rural area prefer many children because children are sources of labour for the family. Apanya and Adam (2015) in a study conducted on enabling factors to utilization of contraceptives reported that as the number of living children increases the use of contraceptives increases while others prefer having as many children rather than using contraceptives.

However, factors associated with contraceptive utilization are overall knowledge of and attitude towards contraceptives, age, residence, number of children alive, experience of child death, marital status and desired number of children (Gbasahon, 2015).

The purpose of this study was to investigate the determinants of modern contraceptives utilization among women of reproductive age.

### Research Questions

1. Is the knowledge of women of reproductive age about modern contraceptives a determinant of modern contraceptives utilization?
2. What is the extent to which demographic characteristics are determinants of modern contraceptive utilization?
3. Is socio-economic status a determinant of modern contraceptives utilization among women of reproductive age?
4. What is the extent to which cultural norms and values are determinants of modern contraceptives utilization among women of reproductive age?

5. Are myth and misconceptions about modern contraceptives determinants of modern contraceptive utilization?

### Materials and Methods

**Design** : This is descriptive research survey design, which was conducted from February 2019 to June 2019. Convenient sampling was used to select sample size of 206. The sample size was calculated according to Leslie formula,  $n = \text{sample size}$ ,  $z = 1.96$  which correspond to 95% confidence level,  $P = \text{prevalence rate } 14.2\%$ ,  $d = 0.05$  margin of error.

**Settings** : The study was conducted during antenatal and infant welfare clinics in three health facilities in Ilie rural Community. I) Community Health Centre, ii) Comprehensive Health Centre and iii) Primary Health Centre.

**Sample** : The study population consisted of Women of Reproductive Age attending Antenatal and Infant Welfare Clinics with a target population of 206

**Instrument** : A self-developed structured questionnaire was used to elicit information from the participant. The data gathering tools were the, Demographic Characteristics consists of seven (7) items such as age, religion, marital status, tribe, types of family, number of children alive, and sex of children., knowledge of modern contraceptives, socio-economic factors consists of three (3) items such as level of education, occupation and average monthly family income and utilization of modern contraceptives questionnaire consists of eight (8) items.

The knowledge of modern contraceptives questionnaire includes 15 items, the highest possible score was 15, the higher the score the greater the knowledge about modern contraceptives. Score between 11-15 was considered good knowledge; score between 6-10 was moderate knowledge while score below 5 were considered poor knowledge.

For the validity of the instrument, the psychometric properties of the questionnaire was checked by experts in the field and confirmed that the content and the structure of the questionnaire were satisfactory. To reduce response error a pilot study

was conducted among 20 women of reproductive age.

Internal Reliability of the questionnaire was determined using Cronbach Alpha coefficient and the value obtained was 0.89.

**Statistical analysis:** Data obtained were coded and analyzed using statistical package for social science (IBM SPSS) Version 21.0; variables were analyzed using descriptive statistics of table, percentages and cross tabulation.

**Ethical consideration :** Ethical approval for the study was obtained from Babcock university health research ethics committee (BUHREC) with reference number NUREC/24/01/2018 and BUHREC025/19 on January 30<sup>th</sup>, 2019. The researcher had obligation to the subjects by getting their informed consent consistent with the principle of individual autonomy. Their voluntary participation, anonymity, privacy and confidentiality when collecting the data was guaranteed. Their right to participate and not to participate was also respected.

## Results

**Demographic characteristics of the respondents:** Mean age of the respondents was 25 years ( $\pm$  1.9), 73.3% were Muslims (n=151), 92.3% were Yoruba (n=190), 97% were married (n=201), 57.3% were from polygamous family (n=118), 42.7% had male and female children (n=88), and 41.7% had 1-2 children (n=86). Descriptive statistics of Demographic Characteristics are presented in Table 1.

**Demographic characteristics and Utilization of modern contraceptives utilization:** Forty-one percent of the respondents were age 25-29 years with utilization rate of 3.9%, 73.3% were Muslims out of which 15.1% were utilizing modern contraceptives, 98.5% were married with modern contraceptives utilization rate of 30.1%. Fifty-seven point three percent were from polygamous family; only 19.9% utilized modern contraceptives, 42.7% had 3-4 children, 3.4% utilized modern

contraceptives while forty-two point seven percent had only female children with utilization rate of 3.9% as presented in Table 2.

**Respondents' knowledge on modern contraceptives and Utilization of modern contraceptives:** Eighty-six point four percent of the respondents had good knowledge on modern contraceptives utilization but its utilization was very low as only 25.8% utilized modern contraceptives.

**Socio-economic factors and Utilization of modern contraceptives:** Forty-nine point one percent of the respondents had secondary level of education; only 7.8% utilized modern contraceptives, 49.1% and 43.7% were traders and earned about 10-30 thousand naira monthly respectively. Modern contraceptives utilization rate for the two variables were 25.8% and 5.9% respectively as presented in Table 4.

**Cultural norms and values and Utilization of modern contraceptives utilization:** Seventy-one point four percent reported that cultural norms forbid the use of modern contraceptives, based on this, 19.5% utilized modern contraceptives. Seventy-one point eight of the respondents indicated that culture forbid communication among partners on contraceptive utilization, hence, about 11.1% of these respondents utilized modern contraceptives. Moreso, 73.3% of the respondents also reported that modern contraceptive does not support large family size as about 20.9% of the respondents utilized modern contraceptives.

**Cultural myth and misconception and Utilization of modern contraceptives utilization:** Seventy-one point eight percent of the respondents reported that cultural myth that some modern contraceptives do not promote sexual satisfaction thus utilization rate among these respondents was 21.8%. Additionally, Misconception that women that utilize modern contraceptives are likely to be promiscuous was indicated by 76.2% with utilization rate of 21.4% as presented in Table 5.

**Table 1: Frequency and percentage showing respondents' Demographic characteristics**

Variables	Values	Frequency (N=206)	Percentage (%=100%)
<b>Age in years</b> (mean= 25 years SD = ± 1.9)	15-19 years	30	14.5
	20-24 years	62	30.0
	25-29 years	84	41.0
	30-34 years	20	9.7
	35-39 years	10	4.8
<b>Religion</b>	Christianity	52	25.2
	Islam	151	73.3
	Traditional	3	1.5
<b>Ethnicity</b>	Yoruba	190	92.3
	Others	16	7.7
<b>Marital status</b>	Single	5	3.0
	Married	201	97.0
<b>Type of family</b>	Polygamous	118	57.3
	Monogamous	84	40.7
	Single parent	4	2.0
<b>Sex of children</b>	Male and female	47	42.7
	Male only	71	34.5
	Female only	88	22.8
<b>Number of children alive</b>	None	5	2.5
	1-2 children	86	41.7
	3-4 children	76	36.9
	5 children and above	39	18.9

**Table 2: Respondents' Demographic characteristics and Utilization of modern contraceptive**

Variables	Modern Contraceptives Utilization		Total (N)
	Yes	No	
	F(%)	F(%)	F(%)
<b>Age</b>			
15-19	24(11.7%)	6(2.9%)	30(14.6%)
20-24	29(14.1%)	33(16.1%)	62(30.0%)
25-29	8(3.9%)	76(36.9%)	84(41.0%)
30-34	2(0.9%)	18(8.7%)	20(9.7%)
35-39	0(0%)	10(4.8%)	10(4.8%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>
<b>Religion</b>			
Christianity	34(15.5%)	20(9.7%)	54(26.2%)
Islam	31(15.1%)	120(59.2%)	151(73.3%)
Traditional	0(0%)	3(1.5%)	3(1.4%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>
<b>Marital status</b>			
Single	1(0.5%)	2(0.9%)	3(1.5%)
Married	62(30.1%)	139(68.5%)	203(98.5%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>

<b>Type of family</b>			
Monogamous	22(10.7%)	62(30.1%)	84(40.8%)
Polygamous	41(19.9%)	77(37.4%)	118(57.3%)
Single parent	0(0%)	4(1.9%)	4(1.9%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>
<b>Number of children alive</b>			
None	0(0%)	5(2.4%)	5(2.4%)
1-2 children	48(23.3%)	33(16.0%)	81(39.3%)
3-4 children	7(3.4%)	81(39.3%)	88(42.7%)
5 children and above	8(3.9%)	24(11.7%)	32(15.3%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>
<b>Sex of children</b>			
All male	19(9.2%)	52(25.2%)	71(34.5%)
All female	8(3.9%)	80(38.5%)	88(42.7%)
Male and Female	36(17.5%)	11(5.3%)	47(22.8%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>

Table 3a: Respondents' Socio-economic status and Utilization of modern contraceptives

Variables	Modern Contraceptives Utilization		Total (N)
	Yes	No	
	F(%)	F(%)	F(%)
<b>Educational level</b>			
No formal education	5(2.4%)	1(0.5%)	6(2.9%)
Primary level	40(19.4%)	50(24.3%)	90(43.7%)
Secondary level	16(7.8%)	85(41.2%)	101(49.1%)
Tertiary level	2(1.0%)	7(3.4%)	9(4.3%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>
<b>Occupation</b>			
Business/trading	53(25.8%)	48(23.2%)	101(49.1%)
Skilled Artisan	3(1.5%)	75(36.4%)	78(37.9%)
Farming	3(1.5%)	10(4.9%)	12(5.8%)
Professional	2(0.9%)	7(3.4%)	9(4.3%)
Civil servant	2(0.9%)	3(1.5%)	6(2.9%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>
<b>Family monthly income</b>			
Less than 10,000 naira	38(18.5%)	12(8.4%)	50(24.3%)
10-30 thousand naira	12(5.9%)	78(54.5%)	90(43.7%)
31-50 thousand naira	11(5.3%)	47(32.9%)	58(28.2%)
51-70 thousand naira	2(0.9%)	5(3.5%)	7(3.3%)
Above 70,000 naira	0(0%)	1(0.5%)	1(0.5%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>

**Table 4: Respondents' level of knowledge on modern contraceptives and utilization of modern contraceptives utilization**

Variables	Utilization of modern contraceptives		Total
	Yes	No	
	F (%)	F (%)	F (%)
<b>Knowledge about modern contraceptives</b>			
Good knowledge	53(25.8%)	125(60.8%)	178(86.4%)
Fair knowledge	6(2.9%)	10(4.9%)	16(7.8%)
Poor knowledge	4(1.9%)	8(3.9%)	12(5.8%)
<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206(100%)</b>

**Table 5: Cultural norms and values and Utilization of modern contraceptives utilization**

Variables		Utilization of modern contraceptives		
		Yes	No	Total
		F(%)	F(%)	F(%)
<b>Cultural norms and values</b>				
Cultural norms forbid modern contraceptives utilization	Yes	<b>40(19.5%)</b>	<b>107(51.9)</b>	<b>(71.4)</b>
	No	<b>23(11.1%)</b>	<b>36(17.5%)</b>	<b>59 (28.6)</b>
	<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206 (100)</b>
Lack of communication among partners on contraceptives utilization	Yes	38(18.6%)	110(53.4%)	148(71.8)
	No	25(12.0%)	33(16.0%)	58(28.2)
	<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206 (100)</b>
Modern contraceptives do not support cultural value for large family size	Yes	43(20.9%)	108(52.4%)	151(73.3)
	No	20(9.7%)	35(17.0%)	55(26.7)
	<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206 (100)</b>

**Table 6: Cultural myth and misconception modern contraceptives utilization**

Variables		Utilization of modern contraceptives		
Category		Yes	No	Total
		F(%)	F(%)	F(%)
<b>Cultural myth and misconception</b>				
Cultural myth that Some Modern contraceptives do not promote sexual satisfaction	Yes	45(21.8%)	107(51.9%)	152(73.8)
	No	18(8.7%)	36(17.5%)	54 (26.2)
	<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.4%)</b>	<b>206 (100)</b>
Misconception that Women that use modern contraceptives are likely to be promiscuous	Yes	44(21.4%)	113(54.9%)	157(76.2)
	No	19(9.2%)	30(14.5%)	49 (23.8)
	<b>Total</b>	<b>63(30.6%)</b>	<b>143(69.6%)</b>	<b>206 (100)</b>

## Discussion

Demographic characteristics like age, marital status, religion, type of family, sex of children and number of children alive were identified as determinants of modern contraceptives utilization. The finding is supported by Tengia-Kessy and Rwabudongo (2006) that religion is the most controversial factor influencing utilization of modern contraceptives in that certain religion advocated abstinence or use of natural methods as the use of modern methods is against the religious belief. The finding is also in congruent with Gbasahon (2015), in his study that there is low utilization of modern contraceptives among Muslims. This is also in concord with Aliyu, Sheu, Sambo and Sabitu (2015) who reported that polygamy has been associated with low utilization of modern contraceptives and that women in polygamous unions are less likely to utilize modern contraceptives compared with women in monogamous unions. Also, polygamy when coupled with youthful age at marriage and with a wide difference in age between spouses may inhibit husband and wife interactions and perpetuate male dominance within the marriage (Ezeh & Mboup, 2017). This is in line with Oyewoga and Odeyemi (2015) that desire for large family size was a major determinant of modern contraceptives.

This study shows that there is good knowledge about modern contraceptives among rural women of reproductive age but its utilization is very low. The study thus, stated that good knowledge about modern contraceptives does not corroborate with utilization, hence knowledge of modern contraceptives is not a determinants of its utilization. This study is supported by Apanya and Adam (2015) that although the awareness of family planning services among community members could be high, it does not necessarily increase the rate of modern contraceptives utilization. This finding is in contrast with Tengia-Kessy and Rwabudongo (2006) who reported that lack of knowledge about modern contraceptives is one of the most important determinants of modern contraceptives utilization which cannot be over estimated. Furthermore, Adeyemi et al. (2016) in their study conducted in Ghana also stated that poor utilization of modern contraceptives was

associated with poor knowledge about modern contraceptives.

The finding also shows that socio-economic factors like level of education. Occupation and average monthly income were significant determinants of modern contraceptives utilization among rural women of reproductive age. The finding is supported by Gizaw and Regassa (2017) that the place of women empowerment for financial independence as a significant determinant of modern contraceptive utilization as poverty tend to prevent individual from taking decision without external interference due to financial dependency. Ackerson and Zielinski (2017) that low income is associated with less access to health services which include family planning. Moreso, Ezeh and Mboup (2017) reported that low socio-economic status of the women is a significant factor that hinders utilization of modern contraceptives by women of reproductive age. In congruent with this study, NPC (2013) stated that women with higher monthly income are often more conscious of significance of a child spacing and therefore tend to utilize modern contraceptive.

The findings further show that cultural myth and misconception that some modern contraceptives do not promote sexual satisfaction and women that utilize modern contraceptives are likely to be promiscuous respectively. This finding is supported by Lasis, Basse, Ita, and Awoyemi (2015) that misconception about lack of sexual satisfaction, discomfort or sexual displeasure, lack partner support and desire for more children among other were considered significant predictors influencing utilization of modern contraceptives.

**Limitation of the Study:** The study focused on women of reproductive age in the study area. All women of reproductive age could not be involved because not all of them attended antenatal and infant welfare clinics during the time of collecting data. Time was another limitation, some women of reproductive age did not want to spare time for answering the questionnaire especially those who cannot read and write. To overcome this challenge, the researcher recruited and trained two research assistants on the purpose of the study and how to go about filling the questionnaire. This eventually made the process faster. Also, some women were not too willing to cooperate.

The researcher, with the help of the assistants, explained the importance and scope of the study with the promise that their information will be treated with utmost confidentiality.

**Conclusion :** The community health care provider, especially community health nurses should continue to create awareness on benefits of modern contraceptives which should involve the rural women of reproductive age so as to ensure effective and efficient utilization of modern contraceptives. Based on the findings from this study, the following recommendations were made; the community health care providers are recommended to increase awareness on modern contraceptives methods, increase counseling about contraceptives and also empower women on choice of methods by discussing with their spouses. Health education on modern contraceptives utilization should be intensified in the community health centres for women of reproductive age on what they stand to benefit from utilizing modern contraceptive services. Community enlightenment programme should be carried out to re-create awareness on the need to utilize modern contraceptive methods available in the health facility by women of reproductive age so as to ensure adequate child spacing and birth interval. Community stake holders should also be involved and be part of reproductive health committee including family planning so as to ensure their full participation and support for modern contraceptives utilization. This is due to the fact that lack of spousal support was identified as part of cultural influence on utilization of modern contraceptives by women of reproductive age in rural community.

**Place:** The study was carried out in Ilie rural community, Olorunda Local Government, Osun State, Nigeria

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