

## Original Research Article

# Appraisal of Practice and some Socio-Economic Factors on the Utilization of Family Planning Methods in Nigeria

### ABSTRACT

**Background:** Family planning has the potential to minimize maternal mortality by lowering the number of unplanned pregnancies, and abortions. This study assesses the practice across different zones in Nigeria.

**Aim:** The research is aimed at appraising the practice in some selected localities in the country

is research assesses the Female Genital Mutilation (FGM) practice and knowledge practice among states in the South-West of Nigeria.

**Method:** A structured questionnaire was used to collect relevant information from appraise respondents in a state in each state of the six geo-political zones in Nigeria. Hierarchical sampling technique is was used to select a locality in each of the six geopolitical zones in the country that need to be studied.. Logistic regression is was used to assess effect of bivariate response variables on the covariates.

**Results:** More than 90% of respondents are were aware of different family planning methods but only 26.2% have utilized contraception. Personal opposition is was found to be the most frequent reason for non-utilization of family planning. Among in the six geo-political zones. regions, The odds of utilization is highest in the North-Central and least in the South-East. North-Central is more than four times more likely to utilize contraceptives when compared with those from the South-West. Wealthy people who mostly reside in urban centers are also found to be more knowledgeable and utilize contraception more. As educational attainment increases, both utilization of contraception and knowledge of family planning methods also increase.

**Keywords:** Family Planning, Contraceptives, Utilization, Practice, Knowledge, Factors Nigeria, Family planning utilization, knowledge and practice of contraception, Economic factors and contraceptive utilization.

### 1. INTRODUCTION

In developing nations in general and Nigeria inclusive, particular, lack of access to high-quality reproductive health and family planning services is a major public health issue. Family planning requires the improves ment of maternal and child health care globally. As a result, child spacing with any kind of contraception is a critical element that influences pregnancy outcomes. Child spacing allows for more opportunities to nurture each child individually, reducing the risk of issues such as gastrointestinal infections and malnutrition throughout infancy and early childhood [1]. By reducing the number of dependents requiring extensive personal care, education, food, shelter, and clothes, among other things, effective family planning can also increase the quality of life and raise the standard of living [2].

**Comment [AOA1]:** This peer reviewer thinks your title is not clear.  
Suggestion: An Appraisal of Family Planning in Nigeria and The Effectsof Socioeconomic Factors on Utilization.

**Comment [AOA2]:** There is a disconnect between the two parts of these sentence, where there is no comma. Secondly, what does FGM has to do with Family planning ? Disconnect?

**Comment [AOA3]:** Check how to use the word 'odd (s) which is a research language.

**Comment [AOA4]:** When family planning uptake is high in a country, there is concomittant improvement ni Maternal mortality ratios, child spacing, and adequate care including nutrition, education, and clothing for siblings. With high family planning uptake comes improvement in child survival as children are not likely to die from childhood infectious diseases.

The World Health Organization (WHO) has designated family planning as one of the six important health treatments for achieving safe motherhood [3]. The UNICEF also considers FP to be one of the most important child-survival strategies. It is one of the most cost-effective approaches to lower maternal, baby, and child death rates. It lowers the frequency of unplanned pregnancies, abortions, and the fraction of high-risk deliveries, all of which minimize maternal mortality [4].

Family planning entails spacing out births, preventing undesirable pregnancies, and/or securing the desired pregnancy [5] using various contraceptives. It is usually taken willingly through the use of contraception or other means of birth control, based on individual and couple education, attitude, and responsible decision, with the goal of boosting family health and contributing to the country's social and economic growth.

The technique has the potential to minimize maternal mortality by lowering the number of unplanned pregnancies, abortions, and the fraction of high-risk newborns. The number of unintended pregnancies in Nigeria in recent years has been on the increasing side (figure 1)

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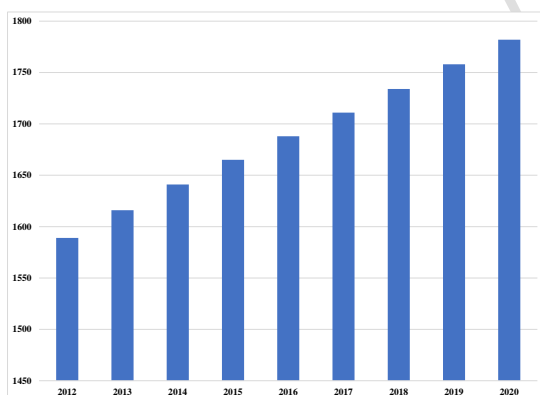


Figure 1: No. of unintended pregnancies ('000) in Nigeria (2012-2020)  
Source: Nigeria FP2020

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Meeting women's needs for contemporary contraception is expected to avert 25 to 33 percent of all maternal fatalities, saving 140,000 to 150,000 lives every year [6]. The practice also offers a host of additional health, social, and economic benefits. It can also aid in HIV prevention, gender equality, poverty reduction, socio-economic development, and environmental protection [7]. Modern contraception technique has assisted in the prevention of many maternal deaths in Nigeria (figure 2).

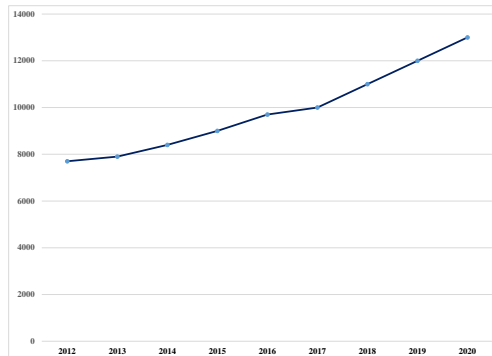


Figure 2: Number of maternal deaths averted due to use of modern methods of contraception in Nigeria (2012-2020). Source: Nigeria FP2020

In underdeveloped nations, about 57% of women of reproductive age are sexually active but do not desire children, necessitating the use of contraception [7]. Around 26% of them do not have access to contemporary contraception, resulting in a large unmet demand [6]. Unmet need for family planning was added to the fifth Millennium Development Goal in 2006 as an indicator for tracking progress on improving maternal health [8]. Figure 3 below shows the current trend of unmet needs in Nigeria.

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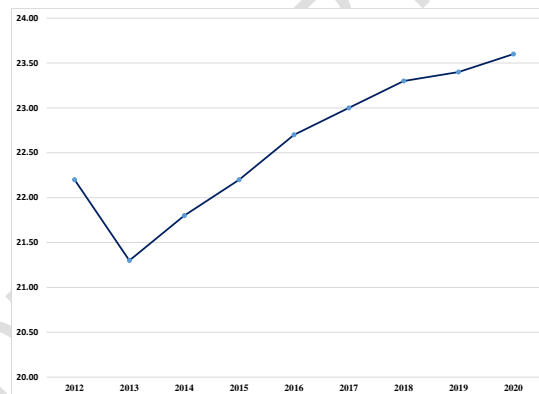


Figure 3: Percentage of women with an unmet need for a modern method of contraception (married/in-union) in Nigeria (2012-2020). Source: Nigeria FP2020

**Comment [AOA8]:** Comments above apply.

From about 2 billion women aged 15-49 years (reproductive age) in the world in 2019, over 1 billion have a need for family planning [9]. From this figure, about 842 million are using different contraceptive techniques, and 270 million have unmet needs for contraception [10]. Using contraception ensures the right of people to determine the number and spacing of their children [11]. In Nigeria, the prevalence of modern contraceptives is expected to rise from 8.6% in 2012 to 11.7 percent in 2020, while demand for modern contraceptives is expected to rise from 30.8 percent to 36.2% in the same time period [12]. According to the 2013 Nigerian Demographic and Health Survey (NDHS), roughly 15% of married women of reproductive age used some form of contraception. Ten percent of currently married women use a modern method of contraception, while five percent utilize other methods. Furthermore, in Nigeria, there is a considerable unmet demand for family planning, with 16%

of married women having an unmet need for family planning [13]. In developing nations, addressing the unmet need for contraception has not been set as a priority [14]. Effective family planning, fertility management, understanding of birth-control methods, access to tools of fertility regulation, and communication between husband and wife about desired family size are all critical [14].

Many socio-cultural factors influence contraception acceptance, including religion, the number of sons, the age of married men and women, the educational position of the husband and wife, and the location of the married men and women. Usage of contraception has been a century-long practice [15], with modern contraceptive methods offering many advantages in the health and economy of couples. As a result of many socio-economic concerns impacting rapid population increase, Family Planning practices, policies, and procedures have become increasingly significant in recent years [4].

Family planning practices in developing nations are far from ideal. Within each country, policies and service delivery differ significantly. Unwanted side effects, the inconvenience of the selected method, and media concerns regarding the safety of current contraceptives are all major obstacles. These are among the leading issues that limit their acceptability [16]. Despite the relatively high potential demand for family planning services in Nigeria as revealed by the National Demographic and Health Survey [17], the Contraceptive Prevalence Rates (CPR) in the country are quite low among married couples [18]. Acceptance of any family planning approach is usually based on faith in the survival of the kid, which can only be ensured by a thorough maternal and child healthcare programme [19].

Several authors have conducted studies on family planning practices and obstacles [1, 2, 20, 21, 22, 23]. This study appraises family planning knowledge and utilization of contraceptives among six regions in Nigeria across different socio-cultural set up. According to the 2008 Nigeria Demographic Health Survey (NDHS), less than 10% of married women in Nigeria utilized a modern method of contraception, with approximately 20% of those who were willing to use having an unmet need for family planning services [24]. Northern Nigeria has the lowest contraceptive use in Nigeria, with an average of roughly 3% across the geopolitical zone, compared to other regions where the practice is significantly higher [24].

## 2. MATERIALS

With the recognized necessity of successful family planning, this study examines the dynamism in utilization throughout Nigeria's various states. A standardized questionnaire is utilized to assess the practice among women between the ages of 15 and 49 who are of reproductive age in a few states. Literacy level, wealth index, and residence (urban or rural) are assessed against the use of various forms of family planning strategies, among other social factors. Respondents are selected across geopolitical zones in the country using research assistants across selected states/locations across the country. A state is selected among states in each of the six geo-political zones in the country using the Convenience Sampling Technique. Respondents are selected from Kwara state (North Central), Bauchi (North-East), Kaduna (North-Central), Ebonyi (South-East), Edo (South-South), and Ondo (South-West).

## 3. METHODS

Descriptive statistics is used to explore and appraise practice relating to family planning among the six regions of Nigeria in this study. Among appraised variables are age,

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educational status, religion, and wealth status of respondents. Semachew Kasa et al. [25] also explore related variables in a survey carried out in Ethiopia. The Chi-square test of dependence is used to assess relationships between selected factors and response variables (knowledge about FPM and utilization of contraceptives). Also, binary logistic regression is used to predict the odds of knowledge and utilization. Analyses involving binary response (Yes/No, Presence/Absence, etc.) are better modelled using binary logistic regression [26]. In this study, response variables are defined as:

$$\pi = \begin{cases} 1, & \text{Knowledge of FPM/Utilization of contraceptives} \\ 0, & \text{Otherwise} \end{cases}$$

#### 4. RESULTS

Table 1 presents the socio-demographic details of the respondents. Respondents in the age group 25-29 have the highest response rate. While those in the age group 40-44 have the least. Participants are largely equally distributed across the zones and the three classified wealth indices. Also, the highest number of respondents have secondary education while there are only 28.4% of respondents have no formal education.

Among the three information media considered, the highest number of respondents listen to the radio when compared with those watching television and those reading newspaper.

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**Comment [AOA12]:** Source of information?

**Table 1:** Social-demographic background of respondents

Characteristics	Frequency
<b>Age Group</b>	
15-19	899 (17.9%)
20-24	662 (13.2%)
25-29	1005 (20.0%)
30-34	746 (14.9%)
35-39	623 (12.4%)
40-44	495 (9.9%)
45-49	590 (11.8%)
<b>Region</b>	
North Central	821 (16.4%)
North East	799 (15.9%)
North West	946 (18.8%)
South East	959 (19.1%)
South-South	634 (12.6%)
South West	861 (17.2%)
<b>Wealth Index</b>	
Poor	1843 (36.7%)
Middle	1254 (25.0%)
Rich	1923 (38.3%)
<b>Residence</b>	
Urban	2731 (54.4%)
Rural	2289 (45.6%)
<b>Religion</b>	
Christian	2683 (53.4%)
Islam	2321 (46.2%)
Traditionalist	16 (0.3%)
<b>Highest Educational Level</b>	
No Formal Education	1425 (28.4%)
Primary	1010 (20.1%)

Secondary	2080 (41.4%)
Post-Secondary	505 (10.1%)
<b>Frequency of reading Newspaper/Magazine</b>	
Not at all	4479 (89.2%)
Less than once a week	413 (8.2%)
At least once a week	128 (2.5%)
<b>Frequency of listening to radio</b>	
Not at all	2020 (40.2%)
Less than once a week	1330 (26.5%)
At least once a week	1670 (33.3%)
<b>Frequency of watching television</b>	
Not at all	2347 (46.8%)
Less than once a week	1145 (22.8%)
At least once a week	1528 (30.4%)

Table 2 shows that more than 11% of the total respondents have had terminated pregnancies and a whopping 94.2% have knowledge of the family planning method. More than a quarter (26.2%) of the total respondents have used contraceptives to avoid pregnancy.

**Table 2:** Responses on some family planning influences

<b>Factor</b>	<b>Frequency</b>
<b>Ever had a terminated pregnancy</b>	
No	4456 (88.8%)
Yes	564 (11.2%)
<b>Knowledge of any FP method</b>	
No	291 (5.8%)
Yes	4729 (94.2%)
<b>Ever used any contraceptive to avoid pregnancy</b>	
No	3706 (73.8%)
Yes	1314 (26.2%)

Sources of news about family planning as observed from the respondents are presented in table 3 below. Radio with over 36% as a source of information is rated first among other methods while SMS/phone is rated least. Also, 19.2% of the respondents also sourced information about family planning from television while only 3.5% source for information on newspapers.

**Table 3:** Source of news about family planning

<b>Factor</b>	<b>Frequency</b>
<b>Radio</b>	
No	3208 (63.9%)
Yes	1812 (36.1%)
<b>Television</b>	
No	4056 (80.8%)
Yes	964 (19.2%)
<b>Newspaper/Magazine</b>	
No	4846 (96.5%)
Yes	174 (3.5%)
<b>SMS/through phone</b>	
No	4891 (97.4%)

Yes	129 (2.6%)
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As observed from table 4, most of the respondents who had utilized any among methods of family planning sourced from the government hospital and health centers with 57.8% of all responses obtained. Also, 24.2% got the contraceptive from the chemist and health centers.

**Table 4:** Source of contraceptives for current users

Source	Frequency
Government Hospital/Health Centre	286 (57.8%)
Family Planning Clinic	16 (3.2%)
Fieldworker	4 (0.8%)
Private doctor/Hospital	49 (9.9%)
Chemist/Pharmacy	120 (24.2%)
Others	7 (1.4%)
Church/Relative	10 (2.0%)
NGO	3 (0.6%)

Among those who have not used any method of contraception, table 5 shows that personal opposition to the practice with 22.3% responses is the dominant reason for not utilization among respondents. Other significant reasons given are infrequent sex, breastfeeding, menopausal, and partner's opposition.

**Table 5:** Reasons for not using FP

Reasons	Frequency
Not Married	6 (0.5%)
Not having sex	43 (3.4%)
Infrequent sex	139 (11.1%)
Menopausal/Hysterectomy	112 (9.0%)
Subfecund/Infecund	88 (7.1%)
Postpartum amenorrheic	24 (1.9%)
Breastfeeding	139 (11.1%)
Fatalistic	100 (8.0%)
Personal opposition	278 (22.3%)
Husband/Partner opposition	104 (8.3%)
Religious prohibition	24 (1.9%)
No knowledge of any method	12 (1.0%)
No source of obtaining	4 (0.3%)
Side effects/health concerns	69 (5.5%)
Not easy to access	9 (0.7%)
High cost	10 (0.8%)
Inconvenient to use	8 (0.6%)
Interference with body's processes	6 (0.5%)
Preferred method not available	2 (0.2%)

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Other unspecified reason	49 (3.9%)
Did not know about it	22 (1.8%)

The results for the significance of the considered factors on the knowledge of any family planning method are presented in table 6. All factors considered are significant to the knowledge of the FP method except the residence of respondents and frequency of reading newspapers.

Knowledge is highest among respondents in the age group 30-34 years while it is least among those in the age group 15-19 years. Among the six regions examined, knowledge is highest among residents in the South-West and it is least among those from North-Central. Rich respondents have a higher knowledge rate in comparison to those from other wealth index backgrounds. Also, urban residents have higher knowledge than those residing in rural areas. Although religion is also found to be a significant factor, the knowledge rate is closer between the two dominant religions. The observed significance may therefore be the effect of the contribution of the traditional religion with quite smaller respondents. It is as well observed from the table that as respondents attain higher educational status, the knowledge rate gets higher. Knowledge is also found to be higher among respondents with a history of a terminated pregnancy

**Table 6:** Characteristics of respondents on Knowledge on family planning method

Characteristics	Knowledge of any Family Planning Method		Chi-Square P-value ( $\alpha=0.05$ )
	No	Yes	
<b>Age Group</b>	291 (5.8%)	4729(94.2%)	0.000*
15-19	150 (16.7%)	749 (83.3%)	
20-24	26 (3.9%)	636 (96.1%)	
25-29	30 (3.9%)	975 (97.0%)	
30-34	18 (2.4%)	728 (97.6%)	
35-39	25 (4.0%)	598 (96.0%)	
40-44	19 (3.8%)	476 (96.2%)	
45-49	23 (3.9%)	567 (96.1%)	
<b>Region</b>			0.000*
North Central	90 (11.0%)	791 (89.0%)	
North East	41 (5.1%)	758 (92.7%)	
North West	19 (2.0%)	927 (98.0%)	
South East	72 (7.5%)	887 (92.5%)	
South-South	47 (7.4%)	587 (92.6%)	
South West	22 (2.6%)	839 (97.4%)	
<b>Wealth Index</b>			0.000*
Poor	171 (9.3%)	1672 (90.7%)	
Middle	55 (4.4%)	1199 (95.6%)	
Rich	65 (3.4%)	1858 (96.6%)	
<b>Residence</b>			0.314
Urban	150 (5.5%)	2581 (94.5%)	
Rural	141 (6.2%)	2148 (93.8%)	
<b>Religion</b>			0.024*
Christian	135 (5.0%)	2548 (95.0%)	
Islam	156 (6.7%)	2165 (93.3%)	
Traditionalist	0 (0.0%)	16 (100.0%)	

<b>Highest Educational Level</b>			
No Formal Education	133 (9.3%)	1292 (90.7%)	0.000*
Primary	53 (5.2%)	957 (94.8%)	
Secondary	100 (4.8%)	1980 (95.2%)	
Post-Secondary	5 (1.0%)	500 (99.0%)	
<b>Frequency of reading Newspaper</b>			
Not at all	272 (6.1%)	4207 (93.9%)	0.054
Less than once a week	14 (3.4%)	399 (96.6%)	
At least once a week	5 (3.9%)	123 (96.1%)	
<b>Frequency of listening to radio</b>			
Not at all	193 (9.6%)	1827 (90.4%)	0.000*
Less than once a week	48 (3.6%)	1282 (96.4%)	
At least once a week	50 (3.0%)	1620 (97.0%)	
<b>Frequency of watching television</b>			
Not at all	187 (8.0%)	2160 (92.0%)	0.000*
Less than once a week	47 (4.1%)	1098 (95.9%)	
At least once a week	57 (3.7%)	1471 (96.3%)	
<b>Ever had a terminated pregnancy</b>			
No	280 (6.3%)	4176 (93.7%)	0.000*
Yes	11 (2.0%)	553 (98.0%)	

Significant factors at  $\alpha = 0.05$

Responses obtained from the cross-tabulations of the considered factors and utilization of contraceptives are presented in table 7. Among all factors considered, only the residence of respondents is not significant to the utilization of contraceptives.

Utilization is highest among respondents in the age group 35-39 years while those in the age group 15-19 years have the least. Respondents from the North-West and South-South have considerably higher utilization in comparison with other geopolitical zones. The least utilization is among those from the South-East zone. Also, richer respondents who mostly reside in urban areas have higher reported utilization of contraceptives. Utilization is significantly higher among the Christian and those with higher educational status. Among the three media tools considered, utilization is highest among those who watch television. The table also shows that utilization is higher among those who had a terminated pregnancy when compared to those who had not.

**Table 7:** Characteristics of respondents on utilization of any contraceptive

Characteristics	Utilization of any contraceptive		Chi-Square P-value ( $\alpha=0.05$ )
	No	Yes	
	3706 (76.8%)	1314(28.8%)	
<b>Age Group</b>			
15-19	861 (95.8%)	38 (4.2%)	0.000*
20-24	542 (81.9%)	120 (18.1%)	
25-29	709 (70.5%)	296 (29.5%)	
30-34	485 (65.0%)	261 (35.0%)	
35-39	380 (61.0%)	243 (39.0%)	
40-44	309 (62.4%)	186 (37.6%)	
45-49	420 (71.2%)	170 (28.8%)	

<b>Region</b>			
North Central	494 (60.2%)	327 (39.8%)	0.000*
North East	641 (80.2%)	158 (19.8%)	
North West	682 (72.1%)	264 (27.9%)	
South East	842 (87.8%)	117 (12.2%)	
South-South	412 (65.0%)	222 (35.0%)	
South West	635 (73.8%)	226 (26.2%)	
<b>Wealth Index</b>			
Poor	1548 (84.0%)	295 (16.0%)	0.000*
Middle	933 (74.4%)	321 (25.6%)	
Rich	1225 (63.7%)	698 (36.3%)	
<b>Residence</b>			
Urban	1998 (73.2%)	733 (26.8%)	0.242
Rural	1708 (74.6%)	581 (25.4%)	
<b>Religion</b>			
Christian	1895 (70.6%)	788 (29.4%)	0.000*
Islam	1795 (77.3%)	526 (22.7%)	
Traditionalist	16 (100.0%)	0 (0.0%)	
<b>Highest Educational Level</b>			
No Formal Education	1180 (82.8%)	245 (17.2%)	0.000*
Primary	734 (72.7%)	276 (27.3%)	
Secondary	1512 (72.7%)	568 (27.3%)	
Post-Secondary	280 (55.4%)	225 (44.6%)	
<b>Frequency of reading Newspaper/Magazine</b>			
Not at all	3374 (75.3%)	1105 (24.7%)	0.000*
Less than once a week	257 (62.2%)	156 (37.8%)	
At least once a week	75 (58.6%)	53 (41.4%)	
<b>Frequency of listening to radio</b>			
Not at all	1595 (79.0%)	425 (21.0%)	0.000*
Less than once a week	938 (70.5%)	392 (29.5%)	
At least once a week	1173 (70.2%)	497 (29.8%)	
<b>Frequency of watching television</b>			
Not at all	1861 (79.3%)	486 (20.7%)	0.000*
Less than once a week	857 (74.8%)	288 (25.2%)	
At least once a week	988 (64.7%)	540 (35.3%)	
<b>Ever had a terminated pregnancy</b>			
No	3339 (74.9%)	1117 (25.1%)	0.000*
Yes	367 (65.1%)	197 (34.9%)	

\*Significant factors at  $\alpha = 0.05$

The odds of utilizing contraceptives are highest among respondents in the age group 25-29 years with almost four times the likelihood of in comparison with those in the age group 15-19 years (who has the least). The odds of utilization is among respondents in all other age groups are slightly more than that of the reference category (45-49 years).

Among the six regions, the odds of utilization is highest in the North-Central and least in the South-East. North-Central are more than four times more likely to utilize contraceptives when compared with those from the South-West. Respondents from both North-East and North-West zones are more than three times likely to utilize contraceptives in comparison with those from the South-West. Those from the South-East are less likely to utilize contraception than any other region in the country.

Utilization of contraceptives is highest among respondents in the rich category of wealth index and it is least among the poor category. Also, urban residents are more likely to utilize contraception when compared with those from rural residents.

Educational attainments have a positive impact on utilization. Table 8 reveals that an increase in education level increases with the utilization of contraceptives. The table also shows positive orientation to media (newspapers, radio, and television) has a positive effect on utilization. Those with the habit of listening to the radio, reading the newspaper, and watching the television at least once a week have higher odds of uptake than those who do not

**Table 8:** Binary Logistic Regression on Utilization of Contraceptives on respondents' characteristics

Factor	Coeff. ( $\beta$ )	P-value	Odds Ratio	95% CI for OR
<b>Age Group</b>				
15-19	-0.684	0.000	0.505	(0.302, 0.844)
20-24	0.369	0.009	1.446	(0.997, 2.098)
25-29	0.719	0.052	2.052	(1.526, 2.759)
30-34	0.547	0.000	1.728	(1.306, 2.287)
35-39	0.523	0.000	1.687	(1.278, 2.227)
40-44	0.374	0.000	1.454	(1.090, 1.939)
45-49 (ref. category)		0.011	1.000	
<b>Region</b>				
North Central	1.474	0.000	4.368	(3.316, 5.756)
North East	1.120	0.000	3.065	(2.081, 4.514)
North West	1.258	0.000	3.518	(2.543, 4.867)
South East	-1.003	0.000	0.367	(0.227, 0.594)
South-South	0.442	0.000	1.557	(1.133, 2.138)
South West		0.006	1.000	
<b>Wealth Index</b>				
Poor	-0.636	0.000	0.529	(0.416, 0.675)
Middle	-0.237	0.000	0.789	(0.644, 0.966)
Rich (ref. category)		0.022	1.000	
<b>Residence</b>				
Urban	-0.218	0.013	0.804	(0.677, 0.955)
Rural (ref. category)			1.000	
<b>Highest Educational Level</b>				
No Formal Education	-1.047	0.000	0.351	(0.237, 0.520)
Primary	-0.595	0.000	0.552	(0.397, 0.767)
Secondary	-0.280	0.000	0.755	(0.584, 0.978)
Post-Secondary(ref. category)		0.033	1.000	
<b>Frequency of reading Newspaper</b>				
Not at all	-0.294	0.192	0.745	(0.473, 1.175)
Less than once a week	-0.090	0.205	0.914	(0.560, 1.491)
At least once a week(ref. category)		0.717	1.000	
<b>Frequency of listening to radio</b>				
Not at all	-0.172	0.080	0.842	(0.695, 1.021)
Less than once a week	0.148	0.141	1.159	(0.952, 1.411)
At least once a week(ref. category)			1.000	
<b>Frequency of watching television</b>				
Not at all	-0.059	0.606	0.943	(0.754, 1.179)
Less than once a week	-0.286	0.011	0.751	(0.603, 0.935)
At least once a week(ref. category)			1.000	

Constant term	-20.029	0.998	0.000
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## 5. DISCUSSION

### Socio-demographic details

From the total 5,020 total respondents, the highest proportions of respondents are in the age group 25-29. While those in the age group 40-44 have the least. Participants are largely equally distributed across the zones and the three classified wealth indices. Also, the highest number of respondents have secondary education while there are only 28.4% of respondents have no formal education.

### Source of information

Among the three information sources considered, the highest number of respondents listen to the radio when compared with those watching television and those reading newspaper. Radio with over 36% as a source of information is rated first among, 19.2% of the respondents sourced information about family planning from television while only 3.5% source from newspapers. Positive orientation to media (newspapers, radio, and television) has a positive effect on utilization. Those with the habit of listening to the radio, reading the newspaper, and watching the television at least once a week have higher odds of uptake than those who do not

### Knowledge of FP and Contraceptive utilization

94.2% have knowledge of the family planning method while only about a quarter (26.2%) of the total respondents have used contraceptives to avoid pregnancy. The utilization of contraceptives observed in this study is higher than what was obtained in a similar study among Senegalese women [27]. However, the contraceptive uptake in this study is lower than 30.4% that was obtained in a survey among women in the Gambia [28] and 41.2% among women of reproductive age in Ethiopia [29]. Although 94.2% knowledge level in this study is significantly higher than 52.1% reported in the Ethiopian study by [29].

### Reason for not using contraception

Improved information and counselling techniques by providers as well as a wider selection choices of modern contraceptive techniques, methods for clients to choose from should be a top objective for contraceptive service providers. All sexually active women, whether married or not single, would want information about their chances of becoming pregnant and the techniques available to satisfy their needs should be readily made available to them [30]. Many reasons have been given for the non-utilization of contraceptives across different backgrounds. Major reasons reported by [31] include among others things: sexual inactivity, the need to prove fertility, and the fear of its adverse effects, Moreira et al., [32] reported that One reason why women did not use ~~women did not~~ use any contraceptives was due to unmet needs for contraception. ~~But most~~ Other prevalent reasons for non-utilization of contraception were infrequent sex, and health concerns, ~~While most~~ married women cited opposition from partners, lack of knowledge was also higher among rural dwellers [32]. A review of reasons for non-utilization among 52 countries [30] revealed that about a quarter of respondents cited side effects, infrequent, and health risks. In this research, results show that personal opposition to the practice with 22.3% responses is the dominant reason for not utilization among respondents. Other significant reasons given are infrequent sex, breastfeeding, menopausal, and partner's opposition.

### Age Group

**Comment [AOA14]:** You dont repeat results again in discussion. Instead you use percentages or other terms like statistically significant, Odds ratio, comparisons with other reseasechers results. 2, you dont divide discussion into sessions, As you discuss along, the reader will know the session you are talking about.

**Comment [AOA15]:** Start a sentence with words and not figures;

**Comment [AOA16]:** You have to say why knowledge did not translate to contraceptive use\*reasons.

**Comment [AOA17]:** Put this ref inits appropriate place, preferably after a full stop.

**Comment [AOA18]:** This should go to R

**Comment [AOA19]:** I

**Comment [AOA20]:** Repetition.

The age of women has been reported to affect the utilization of contraceptives. A study among women of reproductive age in Ethiopia [33] reported that women in the age groups 15-19 and those that are 40 years and above are less likely to use contraceptives. Also, a study among women in Bangladesh showed that women in the age group 40-49 are less likely to utilize contraceptives [34]. Another study among low-and middle-income countries also revealed that contraceptive utilization increase over time among both adolescent girls and adult women **as the woman ages**. [35]. In this study, the percentage knowledge of family planning methods and utilization of contraceptives are highest among respondents in the age group 30-34 years, **this may have arisen from their bad experiences in the past of unintended, missed-timed concenption or unsafe abortion. Contraceptives use was least among those in the age group 15-19 years. This situation may have arisen probably because of their age, because they don't have precedence to judge from, not exposed to indesent sexual behavior in society that will make them pregnant.** The odds of utilizing contraceptives are highest among respondents in the age group 25-29 years with almost four times the likelihood of in comparison with those in the age group 15-19 years (who has the least). The odds of utilization is among respondents in all other age groups are slightly more than that of the reference category (45-49 years).

### Region

Knowledge is highest among residents in the South-West and it is least among those from North-Central. Utilization of contraceptives is highest in the North-Central and least in the South-East. Respondents from the North-West and South-South also have considerably higher utilization. The least utilization is among those from the South-East zone. Respondents from the North-Central are more than four times more likely to utilize contraceptives when compared with those from the South-West. Respondents from both North-East and North-West zones are more than three times likely to utilize contraceptives in comparison with those from the South-West. Those from the South-East are less likely to utilize contraception than any other region in the country.

**Comment [AOA21]:** You should show how religion affected this?

### Wealth Index and Residence

In this study, results show that the rich respondents have a higher knowledge **and utilization** rate in comparison to those from other wealth index backgrounds. Similar studies [36–39] also reported significant effects of wealth category on the usage of contraceptives. Among other factors, the nature of residence (urban or rural) determines the wealth status of respondents. Since most respondents that fall into the rich category of wealth index reside in urban centres, both knowledge and utilization are found to be significantly higher at urban centres in this study when compar3ed with those from the rural centres. Aviiisah et al., [40] identified the place of residence and the educational level of a woman as strong significant factors to the utilization of modern contraceptives among women of reproductive age in Ghana. Lower uptake is observed for women who reside in rural areas.

**Comment [AOA22]:** Of what

### Religion

All societies' cultures are infused with religion [41]. Political leaders see national and regional birth control schemes as critical in light of the world's population increase [42]. Religious views on family planning, particularly in Christianity and Islam, have evolved over time. Understanding these distinctions may lead to health care providers providing more culturally competent care [41]. Even in communities where religious regulations have favoured the copious production of offspring, support for individual fertility restriction has been seen in all cultures and at all eras [42]. Families who believed that family planning was incompatible with their faith proclaimed their obligation to have as many children as God would provide [43].

**Comment [AOA23]:** Repitition

Earlier studies have reported the significance of religious beliefs on the utilization of contraception [44]. In this study, religion is found to be a significant factor, although the knowledge rate is closer between the two dominant religions (Christian and Islam). The observed significance may therefore be the effect of the contribution of the traditional religion with quite smaller respondents. Utilization is significantly higher among the Christian. Earlier research [36, 38, 45] also linked less acceptance for contraception as a result of increased religious activities.

#### **Educational Status**

The relevance of education in achieving safer and more prosperous nations cannot be over-emphasized. In a retrospective study among the Iranian populace, [46] reported that family planning use after marriage enables women to improve their education by freeing them from reproductive activities. Longwe & Smits [47] reported that a decrease in the number of births and an increase in the use of contraceptives are associated with an increase in educational attainments of women of child-bearing age. In this study, it is observed that as respondents attain higher educational status, the knowledge rate gets higher. Educational attainments have a positive impact on utilization. An increase in education level increases with the utilization of contraceptives. Behaviour of women on family planning was assessed by [48] and it was found that uptake increases with increased education. Other studies [27, 39, 49, 50] also reported the significance of education towards increasing the uptake of contraceptives.

**Comment [AOA24]:** I disagree. Suppose they get pregnant before they get married, how will they pursue their educational career

## **6. CONCLUSION AND RECOMMENDATION**

In this study, the level of awareness and knowledge of family planning methods is relatively high but the usage of the techniques is a bit lower than what was obtained in similar studies. Radio is the most prominent source of news about family planning among the respondents while the use of phones and their associated functionalities is the least.

In rural areas, various agencies of government and non-governmental organizations can leverage the use of local radio stations (who mostly operate in the local language of their immediate environment) to intimate the populace on the inherent advantages of uptake of family planning method. Also, various social media platforms can be used to educate the younger generations on the importance and functionalities of different family planning techniques.

The study also found that infrequent sex is among the leading reason given for non-utilization. It is therefore highly pertinent to educate women of reproductive age in particular and adolescents in general on the risk of having unprotected sex. Many life-long dreams had been chattered just because of one-time sex. It does not require frequent sex to be exposed to the danger associated with the non-utilization of contraceptives. Therefore, youths should be educated on the safe sex practice at all times in different fora available. Health practitioners should teach the communities about family planning in a holistic way to raise awareness and promote family planning utilization.

The survey also discovered that personal opposition and partner opposition are two of the most common reasons for not using any FP approach. When implementing a community-level FP programme, proper information dissemination, including husbands in FP decision-making, and continuous training of health workers to improve counselling effectiveness are all important factors to be considered.

**Comment [AOA25]:** Your conclusion is too long., so is your discussion. This is not PHD thesis.

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