Rwanda Medical Journal RMJ

ORIGINAL ARTICLE Open Access

The utilization of family planning among women of reproductive age attending a teaching hospital, Oyo State, Nigeria

Authors: Adetunmise Oluseyi Olajide[1,*]; Modupe Sidikat Isiaka[2]; Ganiyat O. Adeniran[3]; Fafowora Rosemary Omolara

Affiliation: [1]Faculty of Nursing Sciences, Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria; [2]Clinical Nursing Department, University College Hospital, Ibadan, Oyo State, Nigeria; [3]Department of Nursing Science, College of Health Sciences, Osun State University, Osogbo, Nigeria

ABSTRACT

INTRODUCTION: The utilization of family planning services among women of reproductive age is essential and underscores the need for comprehensive health education and accessible family planning services. This study assessed sociodemographic factors influencing the utilization of family planning among women attending a teaching hospital in Oyo State, Nigeria.

METHODS: A cross-sectional descriptive design was used, and a systematic random sampling technique was used to select 326 respondents. The data collection instrument was a pretested questionnaire with a reliability index of 0.79. Data analysis was done using the Statistical Package for Social Sciences. Descriptive and inferential statistics were used to test for association between variables.

RESULTS: In this study, 45.7% of respondents used family planning, while 54.3% of respondents did not utilize family planning. There were significant differences between the family planning use group and the non-use group in marital status (P=0.03), women's occupation (P<0.001), husband's occupation (P=0.01), parity (P<0.001), age (P<0.001), women's level of education (P=0.03), husband's level of education (P=0.03), and husband's monthly average income (P<0.001). However, there were no significant differences in religion (P=0.73), ethnicity (P=0.10), monthly average income (P=0.39), and type of marital status (P=0.16) of respondents between the family planning use group and the non-use group.

CONCLUSION: It is therefore recommended that women should be educated on the need to make use of modern family planning, and they should be empowered.

Keywords: Factors, Family planning, Influencing, Reproductive age, Teaching hospital, Utilization, Women, Oyo state

INTRODUCTION

Family planning involves practices enabling individuals and couples to determine the number and timing of their children through contraceptive methods and infertility treatments [1]. Family planning is vital for maternal, newborn, and child health services [2]. Modern contraceptives aid in

***Corresponding author:** Modupe Sidikat Isiaka, Clinical Nursing Department, University College Hospital, Ibadan, Oyo State, Nigeria. dupeifeaga@gmail.com; **Potential Conflicts of Interest (CoI):** All authors: no potential conflicts of interest disclosed; **Funding:** All authors: No funding was sought for this study; **Academic Integrity.** All authors confirm that they have made substantial academic contributions to this manuscript as defined by the ICMJE; **Ethics of human subject participation:** The study was approved by the local Institutional Review Board. Informed consent was sought and gained where applicable; **Originality:** All authors: this manuscript is original has not been published elsewhere; **Review:** This manuscript was peer-reviewed by three reviewers in a double-blind review process; **Type-editor:** Peter (USA).

Received: 09th March 2024; **Initial decision given:** 14th April 2024; **Revised manuscript received:** 19th June 2024; **Accepted:** 17th August 2024.
 Publisher: Rwanda Biomedical Centre (RBC)/Rwanda Health Communication Center, P. O. Box 4586, Kigali. ISSN: 2079-097X (print); 2410-8626 (online)

Citation for this article: Adetunmise Oluseyi Olajide; Modupe Sidikat Isiaka; Ganiyat O. Adeniran, et al. The utilization of family planning among women of reproductive age attending a teaching hospital, Oyo State, Nigeria. Rwanda Medical Journal, Vol. 81, no. 3, p. 28-37, 2024. https://dx.doi.org/10.4314/rmj.v81i3.3

fertility reduction, reduces maternal and prenatal complications, decreasing infant, child, and maternal mortality [3].

Despite positive gains in global family planning over the past 50 years, contraceptive use remains low in the poorest and most populous countries. In 2019 there were 270 million unmet contraception needs [4]. Access to family planning is critical for improving women's and children's health [5]. In 2015, 12% of married women globally did not use contraception. There was higher family planning utilization in developed countries compared to least developed countries. Sub-Saharan Africa had the highest unmet need at 24%, and 17 African countries, including Nigeria, had levels below 20% [6].

Contraceptive use in sub-Saharan Africa is low, resulting in 12 million unplanned pregnancies and 40% of pregnancy-related deaths annually [7]. Within sub-Saharan Africa, contraceptive use varies widely, with rural residents using fewer contraceptives and having more children than urban residents. Disparities in family planning uptake are significant both across and within countries [2,8]. Nigeria is the most populous country in Africa [9]. In 2017, Nigeria, with 2% of the global population, accounted for 10% of global maternal deaths and had a maternal mortality rate of 917 per 10,000 live births, with a 1 in 13 chance of dying from pregnancy and childbirth. High fertility rates and low contraceptive use contribute to poor maternal health indices, with a total fertility rate of 5.7 per woman in 2018 and over 83% of Nigerian women not using any form of contraception. Only 12% of Nigerian women used modern contraceptives [3] with high fertility rates can always contribute to women's and young children's poor health and, unintended pregnancy and abortion with its complications and deaths [10]. The WHO estimates that 13% of global maternal deaths are due to unsafe abortions, with around 50 million induced abortions annually, including at least 610,000 in Nigeria[11]. Using contraceptives can prevent maternal mortality and morbidity associated with non-utilization of contraceptives [12]. Studies have shown that family planning prevents unwanted pregnancies and abortions, thereby saving and enhancing the lives of women, children, and families. [13–15].

Despite the expected huge gains of family planning, especially as it relates to the reduction in maternal and perinatal morbidities and mortalities [14], it is curious that all the efforts put into its success are not yielding the desired results in Nigeria [15]. The level of use is still shallow as less than one-third of women of reproductive age in Nigeria are making use of modern contraceptives [16,17]. Studies conducted in Nigeria have also recorded a high level of knowledge and awareness of contraception but with low usage [17–21]. Hence, this study assessed factors influencing the utilization of family planning among women of reproductive age attending a Teaching Hospital in Oyo State, Nigeria.

METHODS

Study design and setting

The study employed a cross-sectional descriptive design to investigate the sociodemographic factors influencing the utilization of family planning services among women of reproductive age attending maternal health clinics at a teaching hospital in Oyo State, Nigeria, in 2018. The teaching hospital is a tertiary health institution and a major referral center in Southwest Nigeria. It is approximately a five-hundred-bed tertiary medical facility. Its position makes it the most accessible tertiary and referral medical facility in Nigeria, and it attends a population of over 4.4 million in the Southwest region and beyond. The family planning clinic is a segment of the maternal health clinic that provides education and administration of contraceptive methods of choice. The clinic operates daily, attending to an average of 200 women per month, which will give the required number of participants in the study.

Sample size determination and sampling

The sample size was calculated using the Leslie Kish formula: $n = \frac{Z\alpha^2\, p\,(1-p)}{d^2}$

Where: Z = standard normal variate = 1.96; p = prevalence of family planning utilization in Nigeria = 26% [22]; d = desired level of precision = 0.05;

Therefore, p = 0.26 and 1-p = 0.74,

$n = \frac{1.962 \times 0.26 \times 0.74}{0.0025}$

n = 295.64

Adjusting for a 10% non-response rate, n = 296+30 = 326

Therefore, the sample size of 326 women attending the maternal health clinic was used for this study.

Participant selection

A systematic random sampling technique was used to select respondents for this study. This ensured that all reproductive-age women attending the maternal health clinic had equal chances of participating in the study.

Inclusion criteria: The women allowed to participate included childbearing women aged between 18 and 49 years visiting the maternal health clinic in this study and must also consent to participate in the study.

Exclusion criteria: Women not within the reproductive age of 18 to 49 years, women within the reproductive health not using the maternal health clinic of the settings, and those who do not consent to participate in the study were excluded.

Data collection and measurement

A questionnaire was used as an instrument for data collection. The questionnaire was constructed after reviewing the literature to meet the study's objectives. It was given to experts in the field for face and content validity to determine if the instrument can assess what it was designed to evaluate. The feedback was used to improve the questionnaire. The questionnaire had sections that consisted of questions on the socio-demographic data of respondents and the utilization of family planning methods. A pilot test was conducted in another teaching hospital in the South-West of Nigeria with 10% of the calculated sample size. An alpha-Cronbach reliability index of 0.79 was obtained. The respondents were met. The study's objective was explained to them, and consent to participate was gained. The questionnaires were administered by the researchers and retrieved immediately after the questionnaire respondents had filled out. Data collected were checked for completeness and stored.

Variables and measures

The dependent variable in this study was the utilization of family planning, while the independent variables were the factors influencing the utilization of family planning. For women who used family planning, that was yes, and it was coded 1, while no was coded 0 for those not using family planning. For the independent variables, age below 20 years was coded 1, respondents between 21 and 30 were coded 2, those aged between 31 and 40 were coded 4, and those between 41 and 50 were coded 4. For ethnicity, those who are Yoruba were coded 1, those who are Hausa were coded 2, and those who are Igbo were coded 3. For religion, Islam was coded 1, Christianity was coded 2, and traditional religion was coded 3. For the level of education, those with primary education were coded 1, those with secondary education were coded 2, and those with tertiary education were coded 3. For the marital status, 1 was used to code those who were married, 2 was used to code those who were separated, 3 was used to code those who were divorced, and 4 was used to code those who were widowed. For the occupation of the respondents, 1 was used to code those who had labor work, those who had non-labor work were coded 2, while those who were unemployed were coded 3. For the husband's occupation, those with labor work were coded 1, while those with non-labor work were coded 2. For the average income per month for the respondents, those who earned $50 and below were rated as low-income earners and were coded 1; those who made between $51 and $220 were rated as middle-income earners, coded 2. In comparison, those who made between above $220 were placed as high-income earners and were coded 3. For husbands of respondents' average monthly income, those who earned $50 and below were rated as low-income earners and were coded 1; those who made between $51 and $220 were rated as middle-income earners, coded 2, while those who earned between above $220 were rated as high-income earners and were coded 3. For the number of children, those with 1 to 2 children were coded 1, those with 3 to 4 children were coded 2, and those with 5 and above were coded 3.

Statistical analysis

Analysis was carried out using Statistical Package for Social Sciences Version 22. Descriptive (frequencies and percentages) and inferential statistics (Chi-square) were used to test for association between categorical variables.

Ethical approval was obtained from the Ethics Committee of the Oyo State Ministry of Health (Approval ID: AD 13/479/44523B). Informed consent was gained from the respondents. They were assured of the confidentiality and anonymity of the information provided. The right to refuse or withdraw from the survey was also explained to participants before administering the questionnaire.

RESULTS

Socio-demographic characteristics of the respondents

As shown in Table 1, the mean age of respondents was found to be (34.18±8.35) years. The highest percentage of the respondents were between 31 and 40 years old. Most of the respondents, 309 (94.8%), were Yoruba. More than half of the respondents, 198 (60.7%), were Christians. A large proportion of the respondents, 175 (53.7%), had secondary education. The majority

Table 1: Socio-demographic characteristics of the study population

Socio-demographic characteristics	Frequency (%)
Age of respondents (years)	
≤20	16 (4.9)
21-30	111 (34.0)
31-40	117 (35.9%)
41-50	82 (25.2%)
Mean ± SD	34.18 ± 8.35
Ethnic group	
Yoruba	309 (94.8%)
Hausa	1 (0.3%)
Igbo	16 (4.9%)
Religion	
Islam	126 (38.7%)
Christianity	198 (60.7%)
Traditional	2 (0.6%)
Levels of education	
Primary	27 (8.3%)
Secondary	175 (53.7%)
Tertiary	124 (38 %)
Husband's Level of Education	
Primary	18 (5.5%)
Secondary	147 (45.1%)
Tertiary	161 (49.4%)
Marital status	
Married	311 (95.4)
Separated	13 (4.0%)
Divorced	1 (0.3%)
Widowed	1 (0.3%)
Type of Marriage (Husband having more than one wife)	
Polygamy	78 (23.9%)
Monogamy	248 (76.1%)
Occupations	
Labor work	256(78.5%)
Non-labor work	65 (19.9%)
Unemployed	5 (1.5%)
Husbands occupations	
Labor work	231 (70.9%)
Non-labor work	95 (29.1%)
The average income per month	
Low income ($50 and below)	161 (49.4%)
Middle income ($51 - $220)	152 (46.6%)
High income (> $220)	13 (4.0%)
Husband's average monthly income	
Low income ($50 and below)	113 (34.7%)
Middle income ($51 - $220)	177 (54.3%)
High income (Above $220)	36 (11 %)
Number of children	
1-2	92 (28.2%)
3-4	159 (48.8%)
5 and above	70 (21.5%)
None	4 (1.2%)

of the respondents, 310 (95.1%), were married, 13 (4%) were separated, with 248 (76.1%) were in a monogamous marriage. A more significant number of the respondents, 216 (66.3%), were businesswomen, followed by 58 (17.8%), who were civil servants; 37 (11.3%), who were artisans; and 6 (1.8%) were teachers. Most respondents' average monthly income 126 38.7%) was between $51 to $150. A large proportion of the respondents 159, 48.8%) had 3-4 children. The minimum interval between children showed that the majority 137, 42%) had a child spacing of 2 years.

Family planning method used among the respondents

Figures 1A and B show that more than half of the respondents, 177 (54.3%), haven't used any form of family planning method before, while 149 (45.7%) have used a form of family planning method. The proportion of respondents attending the maternal health clinics currently uses a family planning method. The majority of the respondents 67, 59.8%) were attending a family planning clinic and are also using a method of family planning, 41 (41%) and 26 (35.6%) of the respondents attending the antenatal and postnatal clinic were also on a form of family planning, while a few of the respondents (15, 36.6%) attending the obstetrics and gynecology clinic currently use a family planning method.

Figure 1 shows the level of utilization of family planning among women of reproductive age attending maternal health clinics. More than half of the respondents 177 (54.3%) haven't used any form of family planning method before, while 149 (45.7%) have used a form of family planning method.

Relationship between socio-demographic factors and family planning use among respondents

In Table 2, there were significant differences between the family planning use group and the non-use group in marital status (P=0.03), women's occupation (P<0.001), husband's occupation (P=0.01), parity (P<0.001), age (P<0.001), women's level of education (P=0.03), husband's level of education (P=0.03), and husband's monthly average income (P<0.001). However, there were no significant differences in religion (P=0.73), ethnicity (P=0.10), monthly average income (P=0.39), and type of marital status (P=0.16) of respondents between the family planning use group and the non-use group.

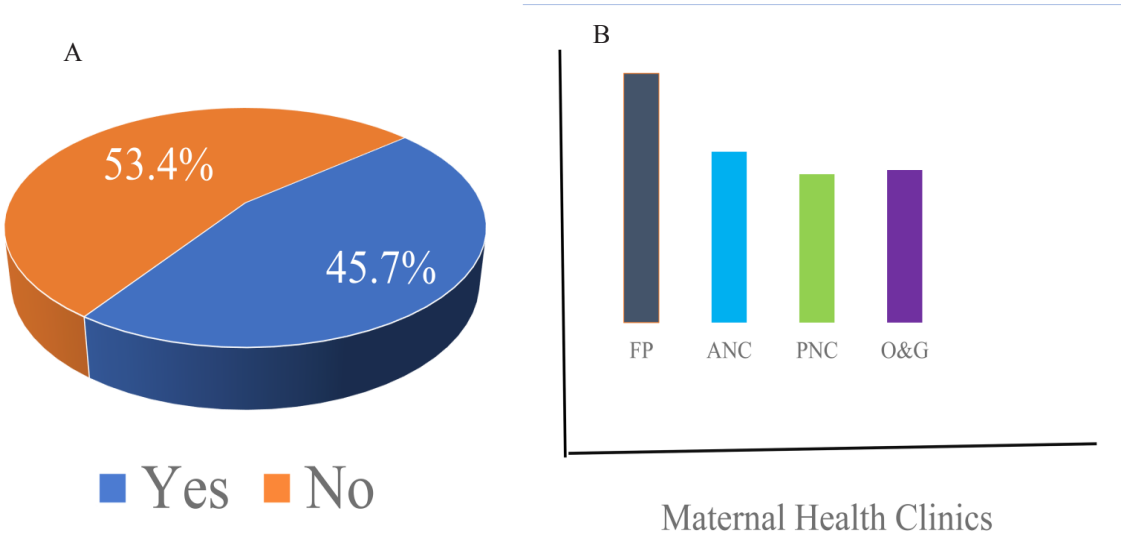

Figure 1: A shows the utilization of family planning among the study population and B shows the proportion of family planning at the maternal health clinic.
FP: Family planning Clinic, ANC: Antenatal Clinic, PNC: Post Natal Clinic, and O&G: Obstetric and Gynecological clinic.

Table 2. Socio-demographic characteristics that determine the utilization of family

Variables	Have you used any family planning method before?		Chi-square (x^2)	p-value
	Yes	No		
Age				
≤20yrs	1 (0.7%)	15 (8.5%)		
21-30yrs	47(31.5%)	64(36.2%)		
31-40yrs	53(35.6%)	57(32.2%)	6.21	0.10
41-50yrs	47(31.6%)	41(23.1%)		
Religion				
Islam	61(40.9%)	65(36.7%)	0.64	0.73
Christianity	87(58.4%)	111(62.7%)		
Traditional	1(0.7%)	1(0.6%)		
Marital status				
Married	147(98.7%)	163(92.1%)	10.81	0.03
Separated	1(0.7%)	12(6.8%)		
Divorced	1(0.7%)	0(0.0%)		
Widow	0(0.0%)	1(0.6%)		
Type of marital status				
Polygamy	41(27.5%)	37(20.9%)	1.94	0.16
Monogamy	108(72.5%)	140(79.1%)		
Occupation				
Labour Work	95(64.2%)	158(89.8%)		
Non-Labour Work	50(33.8%)	16(9.1%)	34.93	<0.001
Unemployed	3(2.0%)	2(1.1%)		
Husband's Occupation				
Labour Work	101(67.8%)	126(71.6%)		
Non-Labour Work	48(32.2%)	48(27.3%)	14.87	0.01
Unemployed	0(0%)	2(1.1%)		
Number of children				
1- 2	16(10.7%)	76(42.9%)	59.85	<0.001
3- 4	78(52.3%)	81(45.8%)		
5 and above	54(36.2%)	16(9.0%)		
None	1(0.7%)	3(1.7%)		
Level of Education				
Primary	17(11.4%)	9(5.1%)	10.95	0.03
Secondary	67(45.0%)	108(61.0%)		
Tertiary	25(16.8%)	47(14.4%)		
Polythecnic	39(26.2%)	77(23.6%)		
None	1(0.7%)	1(0.3%)		

Husband's Level of Education					
Primary					
Secondary	12(8.1%)	6(3.4%)			
Tertiary	59(39.6%)	88(49.7%)			
	78(52.3%)	83(46.9%)	11.19	0.03	
The average income of respondents per month					
Low Income ($50 and below)		68(45.6%)	93(52.5%)		
Middle Income ($51-$220)		77(47.0%)	75(39.0%)	4.07	0.39
High Income (Above $220)		4(2.7%)	9(5.1%)		
Husband's average income per month					
Low income (Below $50 and below)		34(22.8%)	79(44.9%)	25.41	<0.001
Middle income ($51- $220)		97(65.1%)	79(44.9%)		
High income(Above $220)		18(12.1%)	18(10.2%)		

DISCUSSION

In this study, the mean age of respondents was found to be (34.2±8.4) years. This suggested a very young population was recruited for the study. This was similar to a study that reported a mean age of (31.2±7.7) among respondents who participated in a study in Imo State, Nigeria [22]. The slight difference in the ages might result from the study location. The age range for the majority 117 (35.9%) of the study population was between 31-40 years which was in line with similar findings from a study in Oyo State. This could be attributed to the fact that this age range is the most sexually active and also the reproductive age for women. Many of the respondents were Yoruba 309 (94.8%); this was because the study location was in southwest Nigeria, typically the home of this ethnic group. A large proportion was found to be Christians, 198 (60.7%), and also married 311 (95.4%). A similar result was reported in a study carried out in Ile-Ife, Osun, Nigeria, which revealed that most respondents were married Christians [23]. The present study showed that a little above half of the respondents had secondary education 175 (53.7%). A similar study was also reported in which most respondents have attained secondary education [23].

A significant number of the respondents had husbands with just secondary education 147 (45.1%); this is in contrast to findings of a study in Ile-Ife, Nigeria, that reported the majority of the respondents as having a husband with tertiary education [24]. A large number of respondents, 248 (76.1%) in the current study, were found to be in a monogamous marriage. This is similar to a survey carried out among women of reproductive age on the utilization of family planning in Imo state that reported the majority of respondents to be in a monogamous marriage [23]. In addition, this study revealed that the majority of 159 (48.8%) had between 3 and 4 children, in contrast to findings that reported the majority of respondents having between 1 and 2 children [23]. Furthermore, a study carried out in Kenya among women of reproductive age and the utilization of family planning also reported that most respondents have had between 3 and 4 children, which is similar to the findings of this study [25].

The outcome of this study shows a low utilization of family planning among respondents, with more than half of the respondents, 177 (54.3%), found to have yet to use any form of the family planning method. In comparison, just 149 (45.7%) reported having used a form of contraceptive. This is in contrast to findings that reported the majority of respondents to have used a form of family planning at one point or the other [23,24]. However, the outcome of this study was in tandem with another study that reported low utilization of family planning among respondents [20].

A substantial number of respondents who utilized family planning were married, and a significant

relationship was reported between marital status and uptake of family planning. A study conducted in Botswana reported a statistical relationship between marital status and utilization of family planning, which was in tandem with the result of this study [26]. Occupation was also a socio-demographic factor that determined the utilization of family planning among the population studied. More than half, 77 (52.0%) of respondents that utilize family planning were traders. A significant relationship existed between age in years and utilization of family planning. Hence, it was one of the factors that determined usage among respondents. A similar study also demonstrated the use of contraception to be maximum among women aged 30 years and minimum among women aged 20 years, which is consistent with findings from our study [27]. Furthermore, results showed that education was a significant factor that influenced the utilization of family planning. Another study conducted in Abakaliki, Nigeria, reported a similar result, with most respondents who utilized a form of family planning having just secondary education [28]. A report stated that as the level of education increases, the need for more children decreases [29]. Similarly, husbands' level of education was also found to be significantly related to the utilization of family planning among the respondents; however, in contrast to this finding, a study on the factors influencing the choice of family planning methods among couples in southwest Nigeria reported that there was no significant relationship between spouse level of education and the utilization of family planning [30].

Husbands' average monthly income was a socio-demographic factor that influenced the utilization of family planning among women of reproductive age. This also goes in tandem with the outcome of another study conducted in Nigeria that reported the impact of socioeconomic status on the utilization of family planning [17]. Parity was also a major socio-demographic that determined utilization among respondents. A large proportion, 78 (52.3%) of respondents who utilize family planning had 3 to 4 children, while almost half, 76 (42.9%) of respondents who do not utilize family planning have 1 to 2 children. A study in Calabar, Nigeria, also reported that most family planning respondents had between 3 and 4 children [31].

The strength of this study is that it provides detailed socio-demographic insights (age, ethnicity, marital status, education) of women accessing family planning services in Oyo State, Nigeria. It also offers comparative data with previous studies, enhancing understanding of regional trends in family planning utilization. The limitation of this study is that it relies on self-reported data, which may introduce recall bias and affect the accuracy of reported family planning practices.

CONCLUSION

This study found that 45.7% of respondents used family planning, while 54.3% of respondents did not utilize family planning. There were significant differences between the family planning use group and the non-use group in marital status, women's occupation, husband's occupation, parity, age, women's education level, husband's education, and husband's monthly average income. However, there were no significant differences in religion, ethnicity, monthly average income, and type of marital status of respondents between the family planning use group and the non-use group. It is therefore recommended that women should be educated on the need to make use of modern family planning, and they should be empowered. In all primary, secondary, and tertiary health centers. The findings from this study may have implications for nursing practices. Thus, there is a need for nurses and other family planning providers to find ways of increasing the use of family planning services by making them attractive to these women through positive attitudes and respect. In addition, men should be well involved in education about family planning to improve the utilization of family planning among women of reproductive age.

REFERENCES

1. Amu, E.O.; Odu, O.O.; Solomon, O.O. Family Planning Utilization Pattern in Ekiti State University Teaching Hospital, Ado-Ekiti, Nigeria: A Six-Year Review. SSRG International Journal of Medical Science 2017, SSRG-IJMS), 4.

2. Hyeladi, A.; Gyang, J.D.; Chuwang, N. Family Planning Practice and Factors Influencing Family Size among Mwaghavul Ethnic Group of Plateau State. The International Journal of Humanities & Social Studies 2014, 2.

3. Ejembi, C.L.; Dahiru, T.; Aliyu, A.A. Contextual Factors Influencing Modern Contraceptive Use in

Nigeria. Sep 2015, 01.
4. Family Planning/Contraception Methods.
5. Starbird, E.; Norton, M.; Marcus, R. Investing in Family Planning: Key to Achieving the Sustainable Development Goals. Global Health: Science and Practice 2016, 4, 191-210, doi:10.9745/GHSP-D-15-00374.
6. Publications- United Nations Population Division | Department of Economic and Social Affairs.
7. Utoo, P.; Araoye, M. Awareness and Utilization of Family Planning Methods among Mothers of Under-Fives in Gindiri, North-Central Nigeria. undefined 2012, doi:10.4314/JCMPHC.V24I1-2.
8. Duminy, J.; Cleland, J.; Harpham, T.; Montgomery, M.R.; Parnell, S.; Speizer, I.S. Urban Family Planning in Low- and Middle-Income Countries: A Critical Scoping Review. Frontiers in Global Women's Health 2021, 0, 80, doi:10.3389/FGWH.2021.749636.
9. Blackstone, S.R.; Iwelunmor, J. Determinants of Contraceptive Use among Nigerian Couples: Evidence from the 2013 Demographic and Health Survey. Contraception and Reproductive Medicine 2017 2:1 2017, 2, 1-8, doi:10.1186/S40834-017-0037-6.
10. Nsubuga, H.; Sekandi, J.N.; Sempeera, H.; Makumbi, F.E. Contraceptive Use, Knowledge, Attitude, Perceptions and Sexual Behavior among Female University Students in Uganda: A Cross-Sectional Survey. BMC Women's Health 2016, 16, 1-11, doi:10.1186/S12905-016-0286-6/TABLES/5.
11. Population Reference Bureau: 2016 World Population Data Sheet | Family Planning 2030.
12. Aryanty, R.I. Contraceptive Use and Maternal Mortality in Indonesia: A Community-Level Ecological Analysis. Reproductive Health 2021, 18, 1-9, doi:10.1186/S12978-020-01022-6/TABLES/4.
13. Adegboyega, J.A.; Ayodele, F.B. Determinants of Utilization of Antenatal Health Care Services among Pregnant Women in Ekiti State, Nigeria. Journal of Health, Medicine and Nursing 2018, 48, 103-110,.
14. Alano, A.; Hanson, L. Women's Perception about Contraceptive Use Benefits towards Empowerment: A Phenomenological Study in Southern Ethiopia. PLOS ONE 2018, 13, 0203432, doi:10.1371/JOURNAL.PONE.0203432.
15. Wang, C.; Cao, H. Persisting Regional Disparities in Modern Contraceptive Use and Unmet Need for Contraception among Nigerian Women. BioMed Research International 2019, 2019, doi:10.1155/2019/9103928.
16. Akamike, I.C.; Okedo-Alex, I.N.; Eze, I.I.; Ezeanosike, O.B.; Uneke, C.J. Why Does Uptake of Family Planning Services Remain Sub-Optimal among Nigerian Women? A Systematic Review of Challenges and Implications for Policy. Contraception and Reproductive Medicine 2020, 5, 1-11, doi:10.1186/s40834-020-00133-6.
17. Alo, O.D.; Daini, B.O.; Omisile, O.K.; Ubah, E.J.; Adelusi, O.E.; Idoko-Asuelimhen, O. Factors Influencing the Use of Modern Contraceptive in Nigeria: A Multilevel Logistic Analysis Using Linked Data from Performance Monitoring and Accountability 2020. BMC Women's Health 2020, 20, 1-9, doi:10.1186/S12905-020-01059-6/TABLES/3.
18. Adegboyega, L.O. Attitude of Married Women towards Contraceptive Use in Ilorin Metropolis, Kwara State, Nigeria. African Health Sciences 2019, 19, 1875, doi:10.4314/AHS.V19I2.10.
19. Adeyinka, A.R.; Asabi, O.; Adedotun, O.O. Knowledge and P Ractice of Contraception among Women of Reproductive Ages in South West.
20. Agbo, O.J.; Eguvbe, A.O.; Alabra, P.W.; Alagoa, D.O. Knowledge of Modern Contraceptives Methods and Its Uptake Among Female Students of a Tertiary Educational Institution in South-South Nigeria. European Journal of Medical and Health Sciences 2020, 2, doi:10.24018/EJMED.2020.2.5.450.
21. Apuke, O.D. Knowledge, Attitude and Practice of Family Planning among Married Women Living in Jalingo, Nigeria. Nigerian Chapter of Arabian Journal of Business and Management Review 2017, 4, 9-17, doi:10.12816/0040339.
22. Kana, M.; Tagurum, Y.; Hassan, Z.; Afolaranmi, T.; Ogbeyi, G.; Difa, J.; Chirdan, O. Prevalence and Determinants of Contraceptive Use in Rural Northeastern Nigeria: Results of a Mixed Qualitative and Quantitative Assessment. Annals of Nigerian Medicine 2016, 10, doi:10.4103/0331-3131.189801.
23. Duru, C.B.; Nnebue, C.C.; Iwu, A.C.; Oluoha, R.U.; Ndukwu, E.U.; Nwaigbo, E. Utilization of Family Planning Services among Women of Reproductive Age in Urban and Rural Communities of Imo State, Nigeria: A Comparative Study. Afrimedic Journal 2018, 6, 11-26,.
24. AgunbiadeFunmilayo, B. Factors Affecting the Utilization of Family Planning among Women Attending Selected Health Centers in Ile Ife, Osun State, Nigeria. undefined 2017, 3, 134-141, doi:10.21522/TIJNR.2015.03.02.ART012.
25. MORRIS, R.U.G.E.N.D.O.M. Asessing Utilization

of Family Planning Services among Women of Reproductive Age (15-49 Yrs) in North Kanyabala Sub-Location, Homabay Sub-County. Journal of Biology, Agriculture and Healthcare 2015, 5, 142-153,.
26. Ama, N.O.; Olaomi, J.O. Relationship between Socio-Economic Characteristics of Older Adults' Women and Family Planning Use in Botswana 2021, 18, 33-41,.
27. Sharma, V.; Mohan, U.; Das, V.; Awasthi, S. Socio Demographic Determinants and Knowledge, Attitude, Practice: Survey of Family Planning. Journal of Family Medicine and Primary Care 2012, 1, 43, doi:10.4103/2249-4863.94451.
28. Esike, C. Barriers to Family Planning Acceptance in Abakaliki, Nigeria. Tropical Journal of Obstetrics and Gynaecology 2017, 34, 212, doi:10.4103/TJOG.TJOG_35_17.
29. Sensoy, N.; Korkut, Y.; Akturan, S.; Yilmaz, M.; Tuz, C.; Tuncel, B. Factors Affecting the Attitudes of Women toward Family Planning. Family Planning, Jun 2018, doi:10.5772/INTECHOPEN.73255.
30. OLAITAN, O.L. Factors Influencing the Choice of Family Planning among Couples in South West Nigeria. International Journal of Medicine and Medical Sciences 2011, 3, 227-232, doi:10.5897/IJMMS.9000110.
31. Cynthia, E.; Eghong, I.E. Utilization of family planning services among women of child bearing age (15-45 years. from 2011, 2, 13-23.