Abstract

Background: Family planning helps individuals and couples to avoid unwanted pregnancies, regulate interval between pregnancies, and determine the number of children in the family. Family planning is an effective intervention for promoting maternal health, but its acceptability and utilization are impeded by many factors. Aim: This study was conducted to assess the rural women’s awareness and practice of family planning in two communities in Ogun State. Materials and Methods: This was a cross-sectional study conducted among 561 women of reproductive age. Data collection was done using interviewer administered questionnaire. Data were analyzed using IBM SPSS version 20. Frequencies were generated and Chi-square test was used to explore associations. Binary logistic regression was used to determine predictors of ever-used family planning. Results: Majority were aware of family planning (410, 73.1%). The method most commonly known was male condom (348, 84.9%), pills (276, 67.3%), and injectables (231, 56.3%). Respondents who had ever-used family planning were (265, 47.2%). The methods commonly used were injectables (104, 39.2%) and pills (85, 32.1%). Reasons for not using family planning include the desire for more children (78, 26.3%), lack of spousal support (56, 18.9%), and fear of undesirable effects (44, 14.9%). Determinants of ever-used family planning after logistic regression were age and occupation. Women between 31 and 40 years of age were two times more likely than women <20 years to have used family planning (adjusted odds ratio [AOR] 2.17, 95% confidence interval [CI] 2.17–1.23). Farmers were 53% less likely than traders to have ever-used family planning (AOR: 0.47, 95% CI: 0.29–0.78). Conclusion: Although the awareness of family planning was high in this study, it did not correspond to practice. Campaigns promoting the use of family planning for child spacing, male involvement in family planning and dispelling of fears is recommended to improve practice of family planning.

Keywords: Family planning, knowledge, Nigeria, practice, rural

Résumé

Contexte: La planification familiale aide les individus et les couples à éviter les grossesses non désirées, à réguler l’intervalle entre les grossesses et à déterminer le nombre d’enfants dans la famille. La planification familiale est une intervention efficace pour promouvoir la santé maternelle, mais son acceptabilité et son utilisation sont entravée par de nombreux facteurs. Objectif: Cette étude a été menée pour évaluer la sensibilisation et la pratique des femmes rurales en matière de planification familiale dans deux communautés de l’État d’Ogun. Matériel et Méthodes: Il s’agit d’une étude transversale menée auprès de 561 femmes en âge de procréer. La collecte des données a été effectuée en utilisant un questionnaire administré par l’intervieweur. Les données ont été analysées à l’aide d’IBM SPSS version 20. Des fréquences ont été générées et le test du chi carré a été utilisé pour explorer les associations. La régression logistique binaire a été utilisée pour déterminer les prédicteurs de la planification familiale jamais utilisée. Résultats: La majorité était au courant planification familiale (410, 73,1%). La méthode la plus
Introduction

Family planning allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through the use of contraceptive methods and the treatment of involuntary infertility. A woman’s ability to space and limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy.[1] Family planning/contraception reduces the need for abortion, especially unsafe abortion, reduces infant mortality, helps prevent HIV/AIDS, empowers people and enhances education, reduces adolescent pregnancies, and slows down unsustainable population growth.[5]

Voluntary family planning is one of the great public health advances of the past century.[3]

Family planning prevents about one-third of pregnancy-related deaths, as well as 44% of neonatal deaths.[1] This is because timing and spacing of pregnancies – at least 2 years between births – is needed to prevent adverse pregnancy outcomes, including high rates of prematurity and malnutrition and stunting in children.[1]

Access to safe, voluntary family planning is a human right. Yet in developing regions, more than 200 million women who want to avoid pregnancy are not using safe and effective family planning methods.[6] Reasons for this include limited choice of methods; limited access to contraception; fear or experience of side effects; cultural or religious opposition; poor quality of available services; users and providers bias; and gender-based barriers.[2]

Contraceptive use has increased in many parts of the world, especially in Asia and Latin America, but continues to be low in sub-Saharan Africa.[2] In Latin America and the Caribbean, the use of modern contraception has risen and remained stable at 66.7%, but in Africa, the proportion of women aged 15–49 years reporting use of a modern contraceptive method has risen minimally or plateaued between 2008 and 2015 from 23.6% to 28.5%.[2]

Nigeria is the most populous nation in Africa and the seventh most populous in the world.[5] Despite a high fertility rate of 5.5 per woman and a high population growth rate of 3.2%, Nigeria’s contraceptive prevalence is one of the lowest in the world.[5] The 2018 Nigeria demographic and health survey (NDHS) shows that overall 17% of currently married women in Nigeria are using a contraceptive method, an increase of only 2% points since the 2013 NDHS.[6] In the NDHS 2013, women in rural areas were less likely to use contraceptive methods than their counterparts in urban areas (9% vs. 27%) and this trend was observed across all modern methods of contraception.[7] This study was thus conducted to assess the rural women’s awareness and practice of family planning in two rural communities in Ogun State.

Mots-clés: planification familiale, connaissances, Nigeria, pratique, rural

Materials and Methods

This study was carried out in two rural communities in Ikenne Local Government Area of Ogun State, Nigeria – Ilara and Irolu Communities in July 2018. These are small towns whose residents’ major occupation is farming and trading. This study was a cross-sectional study and the study population comprised 561 women of reproductive age, 15–49 years residing in Ilara and Irolu communities for at least 5 years to ensure that these women were indeed rural by residence.

Minimum sample size was calculated using the Cochran formula for descriptive studies:[8]

\[ n = \frac{Z^2 \times p \times (1-p)}{d^2} \]

Proportion of respondents who utilized family planning in a study in rural Northeastern Nigeria – “Prevalence and determinants of contraceptive use in rural Northeastern Nigeria: Results of a mixed qualitative and quantitative assessment by Musa et al.”[9] – was 42%; therefore, \( p \) was set at 0.42. Thus, \( n = 374 \).

Since multistage sampling was employed, the design effect was taken into consideration and the minimum sample size was multiplied 1.5.

Sample size \( 374 \times 1.5 = 561 \)

Multistage sampling technique was used to select respondents in both the towns. In Irolu, the town was well laid out into streets, so sampling was done using streets (in the first stage).
In Ilara town, however, the town was not well laid out into streets, necessitating the researcher dividing the town into groups of houses, based on the arrangement of the houses. Subsequently, sampling was done.

In Irolu town, in the first stage, twenty streets were chosen from the total number of streets in the community (thirty streets) by simple random sampling by balloting.

In the second stage, a systematic sampling method was used to select the 14 houses on each of these streets and 15 houses on the last street. The sampling interval \( k \) used for each street was calculated as \( k = N/n \) where \( N \) is the total number of houses on the street and \( n \) is the desired number of streets to be selected. The house numbers on a selected street were each written in slips of paper from which the researcher randomly picked the index house on that street (balloting).

In Ilara town, in the first stage, the community was divided into twenty groups of houses, based on the arrangement of houses, and ten groups were selected by simple random sampling by balloting. In the second stage, 28 houses were selected from each of the ten groups. The index house in each group was selected by spinning a bottle in the middle of the group and the bottle observed to see where its tip pointed; the house whose front door was closest to the tip was the index house. The next house was the one whose front door was closest to the index one and so on. In the third stage, where there was more than one household in a house, a household was selected from each house by simple random sampling by balloting. Two hundred and eighty-one women were selected in Irolu.

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The data collection tool used was a structured pretested questionnaire which was administered by four trained female interviewers. “Ever used Family Planning” referred to women who were either currently using family planning or had used family planning in the past. Data entry and

### Table 1: Sociodemographic distribution of respondents

| Variable          | Frequency (n=561), n (%) |
|-------------------|-------------------------|
| Age (years)       |                         |
| ≤20               | 111 (19.8)              |
| 21-30             | 206 (36.7)              |
| 31-40             | 155 (27.6)              |
| 41-50             | 89 (15.9)               |
| Mean              | 29.84±9.07              |
| Ethnicity         |                         |
| Yoruba            | 312 (55.6)              |
| Hausa             | 64 (11.4)               |
| Ibo               | 124 (22.1)              |
| Others            | 61 (10.9)               |
| Religion          |                         |
| Islam             | 173 (30.8)              |
| Christian         | 357 (63.6)              |
| Traditional       | 31 (5.5)                |
| Education         |                         |
| No formal         | 88 (15.7)               |
| Primary           | 175 (31.2)              |
| Secondary         | 223 (39.8)              |
| Tertiary          | 63 (11.2)               |
| Postgraduate      | 12 (2.1)                |
| Occupation        |                         |
| Trader            | 156 (27.8)              |
| Farmer            | 120 (21.4)              |
| Tailor            | 53 (9.4)                |
| Hairdresser       | 48 (8.6)                |
| Civil servant     | 45 (8.0)                |
| Health workers    | 19 (3.4)                |
| Unemployed        | 43 (7.7)                |
| Others            | 77 (13.7)               |
| Average monthly income (Naira) |           |
| ≤25,000           | 400 (71.3)              |
| 26,000-50,000     | 140 (25.0)              |
| 51,000-75,000     | 12 (2.1)                |
| >75,000           | 9 (1.6)                 |
| Median (IQR)      | 20,000 (10,000-30,000)  |

IQR=Interquartile range

### Table 2: Awareness of family planning

| Variable                              | Frequency, n (%) |
|---------------------------------------|------------------|
| Heard of family planning (n=561)      |                  |
| Yes                                   | 410 (73.1)       |
| No                                    | 151 (26.9)       |
| Family planning method(s) known* (n=410) |                |
| Male condom                           | 348 (84.9)       |
| Pills                                 | 276 (67.3)       |
| Injectables                           | 231 (56.3)       |
| Implants                              | 190 (46.3)       |
| Female condom                         | 96 (23.4)        |
| IUCD                                  | 75 (18.3)        |
| Emergency contraception               | 29 (7.1)         |
| Foam/jelly                            | 14 (3.4)         |
| Male sterilization                    | 12 (2.9)         |
| Female sterilization                  | 12 (2.9)         |
| Diaphragm                             | 9 (2.2)          |

Source(s) of information about family planning* (n=410)

- Health workers: 158 (38.5)
- Outreach: 162 (39.5)
- TV/radio: 136 (33.1)
- Friends/relatives: 47 (11.5)
- Church/mosque: 46 (11.2)
- Magazine/newspaper: 18 (4.4)
- Social media/internet: 15 (3.6)
- School lecture: 10 (2.4)
- Handbill/poster: 9 (2.2)

*Multiple responses allowed. IUCD=Intra-uterine contraceptive device
Cleaning was done on Microsoft Excel 2010. Data were then imported unto IBM SPSS Statistics version 20 (©Copyright IBM Corporation 2011, Armonk, NY, USA.) and analyzed. Frequency tables and figures were generated for categorical variables. Numerical variables were summarized using mean for normally distributed variable and median for variable not normally distributed.

Ethical approval for this study was obtained from the ethics and research committee of the Lagos University Teaching Hospital. Written informed consent was obtained from each respondent and participants were given the choice to participate or not in the study and the free will to withdraw at anytime if they so choose. The respondents were assured of confidentiality.

**Results**

Table 1 shows that most of the respondents (206, 36.7%) were within the 21–30 years’ age group. The mean age was 29.84 ± 9.07. Most of the women were from the Yoruba tribe (312, 55.6%) and (357, 63.6%) were Christians. The most common occupation was trading 156 (27.8%). The median monthly income was 20,000 (10,000–30,000).

Table 2 shows that majority were aware of family planning (410, 73.1%). The method most commonly known was male condom (348, 84.9%), then pills (276, 67.3%), and injectables 231 (56.3%). The most common sources of information on family planning were health workers (158, 26.8%), outreaches (162, 27.5%), and TV/radio (136, 23.1).

Table 3 shows that more than half (296, 52.8%) have never-used family planning. Those who had used family planning were 265 (47.2%). Of these, the methods commonly used were injectables (104, 39.2%) and pills (85, 32.1%). Reasons for choosing to use family planning include for child spacing (83, 31.3%)

| Variable | Frequency, n (%) |
|----------|-----------------|
| Ever-used family planning (n=561) |  |
| Yes | 265 (47.2) |
| No | 296 (52.8) |
| Method(s) used* (n=265) |  |
| Injectables | 104 (39.2) |
| Pills | 85 (32.1) |
| Implants | 43 (16.2) |
| Male condom | 41 (15.5) |
| IUCD | 16 (6.03) |
| Emergency pills | 10 (3.8) |
| Female condom | 2 (0.75) |
| Reason(s) for choosing to use family planning* (n=265) |  |
| For child spacing | 83 (31.3) |
| Do not want more children | 73 (27.5) |
| Because of family economy | 43 (16.2) |
| To be able to satisfy male partner | 30 (11.3) |
| Advice from health workers | 21 (7.9) |
| A joint decision with spouse | 21 (7.9) |
| So the children can acquire better education | 15 (5.7) |
| To promote health | 10 (3.8) |
| For career/job advancement | 8 (3.0) |
| Reason(s) for choosing not to use family planning* (n=296) |  |
| I want more children | 78 (26.3) |
| Husband does not support it | 56 (18.9) |
| It has unbearable side effects | 44 (14.9) |
| Don’t know the types and where to go | 39 (13.2) |
| I don’t enjoy sex with condom | 15 (5.1) |
| Against my religious/moral belief | 13 (4.4) |
| It can lead to infertility | 12 (4.1) |
| It’s a license for promiscuity | 10 (3.4) |
| It can lead to cancers | 6 (2.0) |
| It is a source of pride to have many children | 4 (1.4) |

*Multiple response allowed. IUCD=Intra-uterine contraceptive device
Table 5: Predictors of ever use family planning

| Variable                  | AOR  | 95% CI Lower | 95% CI Upper | P     |
|---------------------------|------|--------------|--------------|-------|
| Age (years)               |      |              |              |       |
| ≤20 (reference)           | 1    | 0.93         | 2.62         | 0.92  |
| 21-30                     | 1.56 | 0.93         | 2.62         | 0.92  |
| 31-40                     | 2.17 | 1.23         | 3.65         | 0.008 |
| 41-49                     | 1.54 | 0.89         | 2.66         | 0.188 |
| Ethnicity                 |      |              |              |       |
| Yoruba                    | 0.99 | 0.54         | 1.82         | 0.977 |
| Hausa                     | 0.51 | 0.23         | 1.12         | 0.094 |
| Ibo                       | 0.81 | 0.42         | 1.57         | 0.536 |
| Others (reference)        |      |              |              |       |
| Education                 |      |              |              |       |
| No formal (reference)     | 0.74 | 0.42         | 1.30         | 0.294 |
| Primary                   | 0.93 | 0.52         | 1.63         | 0.787 |
| Secondary                 | 2.11 | 0.92         | 4.84         | 0.079 |
| Tertiary                  |      |              |              |       |
| Occupation                |      |              |              |       |
| Trader (reference)        | 0.47 | 0.28         | 0.78         | 0.004 |
| Farmer                    | 0.79 | 0.41         | 1.52         | 0.476 |
| Tailor                    | 0.69 | 0.35         | 1.37         | 0.287 |
| Hairdresser               | 0.68 | 0.30         | 1.51         | 0.339 |
| Civil servant             | 1.49 | 0.43         | 5.16         | 0.531 |
| Health worker             | 0.70 | 0.33         | 1.48         | 0.348 |
| Unemployed                | 0.46 | 0.25         | 0.85         | 0.012 |
| Average monthly income (Naira) |      |              |              |       |
| ≤25,000 (reference)       | 0.92 | 0.18         | 4.60         | 0.914 |
| 26,000-50,000             | 1.60 | 0.32         | 8.09         | 0.573 |
| 51,000-75,000             | 1.46 | 0.19         | 11.07        | 0.712 |
| >75,000                   |      |              |              |       |

AOR=Adjusted odds ratio, CI=Confidence interval

31.3%) because she wants no more children (73, 27.5%), because of family economy (43, 16.2%), and to be able to satisfy male partner (30, 11.3%). Reasons for choosing not to use family planning include the desire for more children (78, 26.3%) because a spouse does not support family planning (56, 18.9%), fear of unbearable side effects (44, 14.9%), and poor knowledge of the methods of family planning and where the services can be obtained (39, 13.2%).

Table 4 shows that there was a statistically significant association between age, ethnicity, education, occupation, average monthly income, and ever use of family planning. More women within the 31–40 age groups (58.7%) had used family planning when compared with other age groups. More Yorubas (53.2%) had used family planning when compared with the Hausas (31.2%), Igbos (41.1%), and other tribes (45.9%). More women with tertiary education (73.3%) had used family planning when compared to those with lesser level of education. Health workers (78.9%) and civil servants (62.2%) had used family planning more when compared with other occupations. Women with income N 76,000–N 100,000 (100.0%) had used family planning more when compared with other levels of income.

Table 5 shows that determinants of ever-used family planning after logistic regression were age and occupation. Women between 31 and 40 years of age were two times more likely than women <20 years to have used family planning. Farmers were 53% less likely than traders to have ever-used family planning.

Discussion

Awareness of family planning in this study was fairly high. Seventy-three percent of respondents were aware of family planning. This is similar to a study in Southeast Nigeria where 80% were aware of family planning.[10] However, the 2013 NDHS reported a higher knowledge of family planning of 96.4% in the Southwest Zone.[7] The difference in the findings of the NDHS and this study may be because this study was carried out in rural areas only unlike the NDHS which comprised women from the rural areas as well as urban areas.

The methods of family planning commonly known in this study were male condoms (84.9%), pills (67.3%), injectables (56.3%), and implants (46.3%). Furthermore, in a study in Uyo, the condom, pill, and injectables were most commonly known.[11] Another study reported that injectables, pills, and implants were the more commonly known contraceptive methods.[12] The least known contraceptive methods in this study were diaphragm/foam/jelly, male and female sterilization, and emergency contraceptives. This may be because these methods are less discussed at health education sessions with health workers.

Less than half of the women 47.2% have ever-used family planning at some point in time. In a similar study among rural women in Bauchi State, 42% of the participants had ever used contraceptives.[9] Among rural women in Nsuka, 53% of women agreed to have practiced family planning at some point in time.[13] The high knowledge of family planning in this study did not translate to high practice, and this trend is seen in other studies across Nigeria.[10,13] Therefore, programs aimed at improving family planning uptake should not only aim to increase awareness but also address barriers and beliefs that may discourage the use of family planning.

The family planning methods most commonly used in this study were injectables (39.2%) and pills (32.1%). Several studies have reported injectable contraceptive and pills as the most common contraceptives used.[9,12,14] The convenience of use of injectables, unlike implants and intrauterine devices, may be responsible for the high use of injectables in this study. Also, the reason why pills was frequently used in this study may be because pills can easily be sourced from pharmacies, and its use does not require the intervention of health workers.

Reasons for choosing not to use family planning include the desire for more children, because spouse does not support...
family planning, and fear of unbearable side effects. Similarly, a study in Ethiopia reported desire for more children as the reason for nonuse of family planning.[12] A study among Igbo women in Southeast Nigeria also reported rejection of family planning by husband as the most common reason for nonuse.[10] Several studies have also identified fear of side effects as a reason for not using family planning.[12,14]

In this study, there was a statistically significant association between age, education, occupation, monthly income, and ever-used family planning. However, age and occupation were the only identified significant factors after controlling for other factors in a logistic regression model. In the bivariate analysis, more women within the 31–40 years age group used family planning when compared with <20 years, 21–30 years, and 41–49 years age groups. Use of family planning among the 41–49 years’ age group was lower possibly because during their more reproductive years, family planning use was generally lower in the population, as figures from NDHS 2013 and 2018 show that contraceptive prevalence rate in Ogun State was 26 in 2013 and 32.1 in 2018.[6,7] Furthermore, lower family planning use among 41–49 years’ age groups may be because they do not see the need in the present since they are close to or at menopause or basically as a result of die-hard age-old misconceptions about family planning. 31–40 years’ age group using family planning more as compared to the younger age groups may be because of the cumulative effect of age and also may be because they have more children, thus the need for family planning. This effect is clearly seen in the logistic regression, which showed that women between 31 and 40 years of age were two times more likely than women <20 years of age to have ever-used family planning.

Logistic regression also showed that farmers were 53% less likely than traders to have ever-used family planning. This may be explained by the tradition where farmers choose to have more children who can assist them in their work on the farm as it is common knowledge in traditional peasant agriculture, particularly in Nigeria, that children are the primary source of family labor.[15,16]

**CONCLUSION**

Although there is a high awareness of family planning in this study, this did not translate to commensurate practice of family planning. Obstacles to contraceptive use were desire for more children, lack of support from male partners, and fear of undesirable effects. Well-organized programs not only aimed at increasing awareness but also aimed at promoting the use of family planning in child spacing, promoting male involvement in family planning, and dispelling fears is recommended to be provided by local governments, state governments, and nongovernmental organizations alike.

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**Conflicts of interest**

There are no conflicts of interest.

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