Family planning method discontinuation among Nigerian women: Evidence from the Nigeria Demographic and Health Survey 2018

Richard D. Agbana, FMCPHa, Turnwait O. Michael, PhD, and Tolulope F. Ojo, M.Sc

Aims: The cessation of family planning among sexually active women who do not intend to have children increases the number of unplanned pregnancies and the risks to maternal health. This study examined the predictors of family planning method discontinuation among sexually active Nigerian women.

Methods: Data from the Nigeria Demographic and Health Survey (NDHS) were used. A total of 4553 women 15–49 years of age who had stopped using family planning methods in the previous 5 years were included in the study. Descriptive and binary logistic regression were used in the analysis.

Results: More than 60% of the women sampled had stopped family planning and had no intention of having children. Respondents discontinued family planning because of adverse effects (15.2%) and method failure (12.9%). Predictors of modern family planning discontinuation were secondary education (OR = 1.302, 95% CI: 1.006–1.685), Islamic religion (OR = 1.281, 95% CI: 1.059–1.550), residence in the South-East geopolitical zone (OR = 0.248, 95% CI: 0.195–0.316), and having paid employment (OR = 0.838, 95% CI: 0.715–0.982).

Conclusion: Socio-economic and cultural factors influence discontinuation of family planning among Nigerian women. Policy options are needed to increase family planning uptake, identify common adverse effects of family planning and focus on raising public awareness regarding the negative consequences of discontinuing family planning on individuals, families and the nation.

* Corresponding address: Demography and Population Studies Unit, Department of Sociology, University of Ibadan, Ibadan, Nigeria.
E-mail: turnwaitmichael@gmail.com (T.O. Michael)

Peer review under responsibility of Taibah University.
Introduction

Family planning (FP) is a deliberate action taken by individuals and families to space their children’s births or limit the number of children. FP is accomplished through the use of contraceptives. Both modern and traditional FP/contraception methods are available. The modern method is considered effective in preventing unplanned pregnancies, unsafe abortions, sexually transmitted infections and maternal health risks. In contrast, the traditional method is considered unreliable. Modern contraceptive methods include condoms, sterilization, contraceptive pills, intrauterine devices (IUDs), injectables, the standard days method (using a menstrual cycle calendar), implants and lactational amenorrhea. The traditional method includes the rhythm method (periodic abstinence) and withdrawal.

Globally, women use FP at a rate of 62%. Worldwide, approximately 56% of married women use a modern method of FP, whereas 6% use a traditional method. A small proportion of married women who use a modern method (29%) and most married women who use a traditional method (4%) live in low-income countries. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.

In Nigeria, 98% of sexually active unmarried women and 94% of married women are aware of modern FP methods. Approximately 72% of married women in the country are aware of the traditional methods of FP. However, only 19.0% of married Nigerian women 15–49 years of age use a modern method of contraception, whereas 8.6% use a traditional method. Therefore, a mismatch appears to exist between women’s awareness and use of contraceptives. Despite improvement efforts, the country’s high total fertility rate (TFR) remains a significant challenge. Nigeria has a TFR of 5.3, which exceeds the global TFR of 2.5. Nigeria is considered in the high fertility risk category. In sub-Saharan Africa, 29% of married women use a modern method of FP for child spacing and birth control, whereas 5% use a traditional method. Despite improvement efforts, the region’s use of birth control remains appreciably low.
Family planning method discontinuation

Data analysis

The analysis was performed in two stages. The first stage began with the selection of variables measuring FP and respondents’ socio-demographic characteristics. Several variables were recorded for further investigation. The data were then analyzed at the descriptive (frequencies and percentages), bivariate (chi-square) and multivariate (regression) levels in the second stage. The chi square test was used to examine the relationships between variables. The binary logistic regression model explained the independent variables’ odds of predicting the outcome variable. Only variables that were statistically significant at the chi-square level of analysis were included in the logistic model, to increase the accuracy of prognostic factors, with the exception of the total number of children ever born, which was a variable of interest and needed to be recoded for advanced analysis. All statistics were tested at a confidence level of 0.95.

Results

Background characteristics of the respondents

A total of 4553 women who discontinued FP methods were chosen for this study. Of the total respondents, 3233 (71.1%) used modern methods of FP, whereas 1320 (28.9%) used traditional methods. Most respondents (20–39 years of age) used either modern (83.3%) or traditional (83.2%) methods of FP. Among modern method users, 53.4% lived in cities, 49.8% were Christians (excluding Catholics), and 29.4% were from the wealthiest households. Among users of traditional methods of FP, 53.2% had secondary education, and approximately 36% were from the South-East region. Among users of modern methods of FP, 87.1% were married and lived with their partners. Few (6.6%) women who used modern methods of FP had no children. Similarly, 6.5% of women who used traditional methods did not have a child (Table 1).

Table 2 shows the reasons for discontinuation of FP among women in Nigeria. Overall, 36.1% of respondents stopped using FP because they wanted to become pregnant. Those who used contraceptive pills (34.3%), IUDs (46.4%), male condoms (31.8%) or periodic abstinence/the rhythm method (45.3%) stopped using these methods because they desired to become pregnant. Overall, 15.2% of all respondents discontinued the use of FP methods because of perceived adverse effects. Women who used implants (41.4%), injections (35.3%) and contraceptive pills (21.0%), for example, stopped using those methods because of negative health effects. Overall, 12.9% of all respondents stopped using FP because they became pregnant. Those who used the rhythm method (26.5%), withdrawal (23.6%), emergency contraceptives (13.3%) and contraceptive pills (12.8%) stopped using those methods because they became pregnant. Overall, 11.4% of the women stopped using FP because of infrequent sex or the absence of their husbands. Those who used male condoms (27.1%), emergency contraception (20.0%), withdrawal (13.2%) and the rhythm method (13.0%) stopped using these methods because of infrequent sex or the absence of their husbands.

Table 3 shows the logistic regression of respondents’ likelihood of discontinuing an FP method. Education, religion, region, number of children, women’s working status and decision-making disfavoring the use of contraception all contributed to the likelihood of women of reproductive age discontinuing modern methods of FP. When other variables were controlled for, women with a secondary school education were approximately twice as likely as women with no formal education to discontinue modern FP (OR = 1.302, 95% CI: 1.006–1.685). Non-Catholic Christians and Muslims were 1.3 times as likely as women who practiced Catholicism to discontinue modern FP (OR = 1.297, 95% CI: 1.014–1.664). South-Central respondents were 3.14 times as likely as respondents from the North-East to discontinue modern FP (OR = 3.145, 95% CI: 1.762–5.624). The logistic regression model explained the independent variables’ odds of predicting the outcome variable. Only variables that were statistically significant at the chi-square level of analysis were included in the logistic model, to increase the accuracy of prognostic factors, with the exception of the total number of children ever born, which was a variable of interest and needed to be recoded for advanced analysis. All statistics were tested at a confidence level of 0.95.

Table 1: Number and percentage distribution of family planning method discontinuation among women according to socio-demographic variables (n = 4553).

| Variables                  | Modern methods | Traditional methods | χ²   |
|----------------------------|----------------|---------------------|------|
| All women                  | 3233 (100)     | 1320 (100)          |      |
| Age 15–19                  | 88 (2.7)       | 26 (2.0)            | 3.244|
| Age 20–29                  | 1262 (39.0)    | 499 (37.8)          |      |
| Age 30–39                  | 1431 (44.3)    | 599 (45.4)          |      |
| Age 40–49                  | 452 (14.0)     | 196 (14.8)          |      |
| Type of residence          |                |                     |      |
| Urban                      | 1727 (53.4)    | 804 (60.9)          | 21.306 ***|
| Rural                      | 1506 (46.6)    | 516 (39.1)          |      |
| Educational level          |                |                     |      |
| No education               | 523 (16.2)     | 154 (11.7)          | 25.568 ***|
| Primary                    | 558 (17.3%)    | 192 (14.5)          |      |
| Secondary                  | 1594 (49.3%)   | 702 (53.2)          |      |
| Higher                     | 558 (17.3%)    | 272 (20.6)          |      |
| Religion                   |                |                     |      |
| Catholic                   | 434 (13.4)     | 322 (24.4)          | 124.589 ***|
| Other Christian            | 1609 (49.8)    | 695 (52.7)          |      |
| Islam                      | 1182 (36.6)    | 300 (22.7)          |      |
| Other                      | 8 (0.2)        | 3 (0.2)             |      |
| Wealth index               |                |                     |      |
| Poorest                    | 243 (7.5)      | 71 (5.4)            | 19.758 ***|
| Poorer                     | 444 (13.7)     | 145 (11.0)          |      |
| Middle                     | 694 (21.5)     | 263 (19.9)          |      |
| Richer                     | 900 (27.8)     | 397 (30.1)          |      |
| Richest                    | 952 (29.4)     | 444 (33.6)          |      |
| Region                     |                |                     |      |
| North-Central              | 665 (20.6)     | 147 (11.1)          | 328.643 ***|
| North-East                 | 515 (15.9)     | 170 (12.9)          |      |
| North-West                 | 457 (14.1)     | 55 (4.2)            |      |
| South-East                 | 509 (15.7)     | 486 (36.8)          |      |
| South-South                | 451 (13.9)     | 173 (13.1)          |      |
| South-West                 | 636 (19.7)     | 289 (21.9)          |      |
| Marital status             |                |                     |      |
| Never married              | 250 (7.7)      | 89 (6.7)            | 1.781 |
| Married/living with partner| 2815 (87.1)    | 1168 (88.8)         |      |
| Other                      | 168 (5.2)      | 63 (4.8)            |      |
| Total children ever born   |                |                     |      |
| 0                          | 212 (6.6)      | 86 (6.5)            | 6.408 |
| 1–2                        | 864 (26.7)     | 396 (30.0)          |      |
| 3–4                        | 1054 (32.6)    | 429 (32.5)          |      |
| 5+                         | 1103 (34.1)    | 409 (31.0)          |      |

Pearson chi-square (χ²) significant at p < 0.05*, p < 0.01**, p < 0.001***; N = number.
Table 2: Percentage distribution of discontinuation of family planning methods among women according to the primary reason for discontinuation.

| Reason for discontinuations | Modern methods | Male condom | Implants | LAM | Emergency contraception | Other modern method | Periodic abstinence/rhythm | Withdrawal | Total% |
|------------------------------|----------------|-------------|----------|-----|--------------------------|---------------------|---------------------------|-------------|--------|
| Became pregnant              | 12.8 7.2 5.3    | 10.2 4.6    | 7.4      | 13.3| 22.2                     | 26.5 23.6           | 21.0 36.1             | 21.0 26.5   | 23.6 21.0 |
| Wanted to become pregnant    | 34.3 46.4 31.3  | 31.8 32.9   | 35.3     | 30.7| 27.8                     | 45.3 43.6           | 39.5 36.1             | 39.5 43.6   | 36.1   |
| Husband disapproves          | 2.6 5.2 4.1     | 7.4 2.6     | 1.0      | 5.3 | 5.6                      | 0.2 3.1             | 1.2 3.4               | 1.2 3.4     | 3.4     |
| Adverse effects              | 21.0 20.6 35.3  | 1.6 41.4    | 1.0      | 14.7| 0.0                      | 0.2 0.4             | 8.0 15.2              | 8.0 15.2    | 15.2   |
| Access/availability           | 2.1 0.0 2.1     | 0.3 1.0     | 0.0      | 0.0 | 0.0                      | 0.0 0.0             | 2.5 1.0               | 2.5 1.0     | 1.0    |
| Wanted a more effective method| 9.1 6.2 6.4     | 6.6 2.0     | 23.0     | 5.3 | 8.3                      | 6.2 9.1             | 6.8 8.5               | 6.8 8.5     | 8.5    |
| Inconvenient to use           | 5.3 4.1 4.1     | 8.6 3.6     | 11.0     | 2.7 | 2.8                      | 2.4 3.1             | 8.0 5.3               | 8.0 5.3     | 5.3    |
| Infrequent sex/husband absence| 8.3 2.1 5.3     | 27.1 4.3    | 10.3     | 20.0| 19.4                     | 13.0 13.2           | 5.6 11.4              | 5.6 11.4    | 11.4   |
| Others                       | 4.5 8.2 6.0     | 6.3 7.6     | 11.0     | 8.0 | 13.9                     | 6.2 3.8             | 7.4 6.3               | 7.4 6.3     | 6.3    |
| Total count                  | 624 97 1061     | 619 422     | 736 162  | 304 | 417                      | 75 36              | 4553                   |             |        |

Table 3: Logistic regression coefficients of the likelihood of discontinuation of modern family planning methods according to socio-demographic variables.

| Variables                  | B   | S.E. | Wald   | p-value | Odds ratio | 95% CI  |
|----------------------------|-----|------|--------|---------|------------|---------|
|                            |     |      |        |         |            | Lower   | Upper   |
| Type of residence          |     |      |        |         |            |         |         |
| Urban (RC)                 |     |      |        |         | 1.000      |         |         |
| Rural                      | 0.109| 0.082| 1.797  | 0.180   | 1.116      | 0.951   | 1.309   |
| Educational level          |     |      |        |         | 1.000      |         |         |
| No education (RC)          |     |      |        |         |            |         |         |
| Primary                    | 0.259| 0.140| 3.415  | 0.065   | 1.295      | 0.984   | 1.704   |
| Secondary                  | 0.264| 0.132| 4.009  | 0.045   | 1.302*     | 1.006   | 1.685   |
| Higher                     | 0.087| 0.153| 0.567  | 0.427   | 1.091      | 0.809   | 1.472   |
| Religion                   |     |      |        |         | 1.000      |         |         |
| Catholic (RC)              |     |      |        |         |            |         |         |
| Other Christian            | 0.248| 0.097| 6.492  | 0.011   | 1.281**    | 1.059   | 1.550   |
| Islam                      | 0.314| 0.131| 5.731  | 0.017   | 1.368***   | 1.058   | 1.769   |
| Other                      | 0.553| 0.697| 0.630  | 0.427   | 1.739      | 0.443   | 6.823   |
| Wealth index               |     |      |        |         | 1.000      |         |         |
| Poorest (RC)               |     |      |        |         |            |         |         |
| Poorer                     | −0.074| 0.172| 0.188  | 0.665   | 0.928      | 0.663   | 1.300   |
| Middle                     | 0.055| 0.170| 0.106  | 0.745   | 1.057      | 0.758   | 1.473   |
| Richer                     | 0.025| 0.174| 0.020  | 0.888   | 1.025      | 0.729   | 1.441   |
| Richest                    | −0.046| 0.180| 0.063  | 0.802   | 0.955      | 0.669   | 1.365   |
| Region                     |     |      |        |         | 1.000      |         |         |
| North-Central (RC)         |     |      |        |         |            |         |         |
| North-East                 | −0.406| 0.137| 8.775  | 0.003   | 0.667**    | 0.510   | 0.872   |
| North-West                 | 0.607| 0.177| 11.746 | 0.001   | 1.836***   | 1.297   | 2.598   |
| South-East                 | −1.393| 0.123| 128.683| 0.000   | 0.248****  | 0.195   | 0.316   |
| South-South                | −0.564| 0.134| 17.586 | 0.000   | 0.569****  | 0.437   | 0.741   |
| South-West                 | −0.710| 0.123| 33.552 | 0.000   | 0.492****  | 0.387   | 0.625   |
| Total children ever born   |     |      |        |         | 1.000      |         |         |
| 0 (RC)                     |     |      |        |         |            |         |         |
| 1=2                        | −0.043| 0.134| 0.104  | 0.747   | 0.958      | 0.736   | 1.246   |
| 3+                         | −0.165| 0.073| 5.117  | 0.024   | 0.848***   | 0.735   | 0.978   |
| Working status             |     |      |        |         | 1.000      |         |         |
| Not working (RC)           |     |      |        |         |            |         |         |
| Working                    | −0.177| 0.081| 4.762  | 0.029   | 0.838**    | 0.715   | 0.982   |
| Decision-maker deciding against the use of contraception |     |      |        |         | 1.000      |         |         |
| Respondent alone (RC)      |     |      |        |         |            |         |         |
Respondents from the North-East region were 33% less likely than respondents from the North-Central region to discontinue a modern method of FP (OR = 0.667, 95% CI: 0.510–0.872). Those from the North-West region were twice as likely as those from the North-Central region to discontinue a modern method of FP (OR = 1.836, 95% CI: 1.297–2.598). Women in the South-East region were 75% less likely than those in the North-Central region to discontinue a modern method of FP (OR = 0.248, 95% CI: 0.195–0.316). Women in the South-South region were 43% less likely than those in the North-Central region to discontinue a modern method of FP (OR = 0.569, 95% CI: 0.437–0.741). Similarly, respondents from the South-West region were 51% less likely than those from the North-Central region to discontinue a modern method of FP (OR = 0.492, 95% CI: 0.387–0.625).

Women with three or more children were 15% less likely to stop using modern FP methods than women without children (OR = 0.848, 95% CI: 0.735–0.978). Respondents with a paid job were 16% less likely than those without a paid job to discontinue a modern method of FP (OR = 0.838, 95% CI: 0.715–0.982). Respondents who made the decision to discontinue the use of contraception through other means/people (including family members, friends, health care workers, leaders, and fellow members at places of worship, businesses and learning centers; excluding partners/husbands) were 58% less likely to discontinue modern methods of FP than those who made the decision themselves (OR = 0.418, 95% CI: 0.218–0.804).

Discussion

The purpose of this study was to examine the factors leading to the discontinuation of FP among Nigerian women of reproductive age. According to the findings, 36.1% of respondents discontinued FP to become pregnant. Women who used contraceptive pills, IUDs, male condoms and periodic abstinence/the rhythm method, for example, stopped using these methods because they wanted to become pregnant. Discontinuing a method because of a desire to become pregnant is acceptable as long as the pregnancy is planned and within the globally acceptable fertility replacement level of 2.1. Previous research has found that women stop using FP methods because they desire children.

Concerningly, more than 60% of the women in our study stopped FP for reasons other than wanting to become pregnant. Fear of adverse effects caused 15% of the total respondents in our study to stop using a modern method of FP. Women who used implants, injections and contraceptive pills discontinued use because of perceived adverse effects and health concerns. According to previous research, women may stop using contraception because of perceived adverse effects. Prolonged bleeding, irregular menstruation, abdominal pain, headache, weight gain, decreased libido and nausea are some adverse effects of contraceptive use. Misconceptions regarding abnormal bleeding and irregular menstruation caused by FP include the possibility of cancer, fibroids, infertility and blood circulation restriction. These myths may encourage women to stop using contraception.

Notably, findings regarding discontinuation of FP because of adverse effects indicated that these women may acutely need FP and do not wish to become pregnant at the time of discontinuation. In these cases, women should ideally switch from an undesirable method of FP to a more acceptable and effective method. Allowing a sexually active woman to remain without FP may result in unplanned pregnancy and consequently unsafe abortions or even death, particularly in Nigeria, where induced abortion is illegal. Women who induce abortions tend to do so in secret. Therefore, even if women are abused or violated during the abortion process, they are unlikely to fight for their rights, because they already see themselves as violators of the law.

Thirteen percent of our study’s respondents discontinued using FP methods such as the rhythm method, withdrawal, emergency contraception or contraceptive pills because they became pregnant while using FP. Previous research has found that unplanned pregnancy influences users’ discontinuation of FP. Unplanned pregnancy due to method deficiency necessitates more urgent and regular sensitization and counseling regarding the best way to use FP, because some users are unfamiliar with the best ways to use a method. By extension, the government, health care providers, contraceptive manufacturers and distributors must critically

Table 3 (continued)

| Variables | B  | S.E. | Wald | p-value | Odds ratio | 95% CI Lower | 95% CI Upper |
|-----------|----|------|------|---------|------------|--------------|-------------|
| Joint decision | 0.034 | 0.129 | 0.070 | 0.791 | 1.035 | 0.803 | 1.333 |
| Others | -0.872 | 0.334 | 6.824 | 0.009 | 0.418** | 0.218 | 0.804 |
| Told about adverse effects by healthcare or family planning worker | | | | | | |
| Not told (RC) | | | | | | |
| Told | -0.580 | 0.449 | 1.673 | 0.196 | 0.560 | 0.232 | 1.349 |
| Overall model evaluation | | | | | | |
| Omnibus tests: | 353.369*** | | | | | |
| Nagelkerke R square: | 0.107 | | | | | |
| –2 log likelihood: | 5129.161 | | | | | |
| Hosmer and Lemeshow Test: | 0.547 | | | | | |

Significance at *p < 0.05; **p < 0.01; ***p < 0.001; RC = reference category; CI = confidence interval; OR = odds ratio.
ensure that deficiencies in production, distribution, storage and administration are addressed to avoid discouraging use of FP. Consumers are more likely to abandon FP when they are discouraged and doubt the efficacy of a method.12,23

Our study determined that education, religion, region, number of children, occupation and decision-making styles all predict the likelihood of abandoning modern methods of FP. Similarly, previous research has shown that socio-demographic and cultural factors are predictors of FP discontinuation.34,42,43 Our study indicated that women with a secondary school education were more likely than women without a formal education to abandon modern FP methods. Non-Catholic Christians and Muslims were more likely than Catholics to abandon modern methods of FP. Consequently, providing continuous schooling to women and girls through secondary school or higher education is critical to sustaining contraceptive use among sexually active women.1,20 Moreover, religious leaders could help encourage members to use FP. Previous research has indicated that education, religion and socio-cultural factors all contribute to the discontinuation of FP use.34,45

Respondents from the North-East, South-East, South-South and South-West regions were less likely to abandon modern methods of FP than respondents from the North-Central region. Women from the North-West, in contrast, were more likely than those from the North-Central region to abandon modern methods of FP. These findings are consistent with previous research indicating that women’s use of FP is influenced by their region, ethnicity and environmental circumstances.28,35,36 The regional differences observed in our study are concerning, because the findings clearly show that women in the southern part of Nigeria are less likely than their northern counterparts to discontinue FP. Might this finding be associated with women’s rights to make their own decisions about contraception use? According to prior studies, female autonomy over their bodies influences contraceptive use in Nigeria.10,46

Our findings also revealed that women who made contraception decisions independently of their partners or husbands were less likely to discontinue FP than those who made decisions jointly with their partners or husbands. We also discovered that respondents with paid jobs were less likely than those without paid jobs to abandon modern FP methods. Women’s economic and sexual autonomy improves when they have paid jobs.47 Our findings were consistent with previous research results indicating that partner decisions influence the continuation or discontinuation of FP methods among women.48–50

Limitations

Although our study used a large survey data set that is nationally representative, thus adding to the study’s strength, the main limitation is that the data were gathered through a self-reported questionnaire, which might have been subject to biases and cultural influences. Furthermore, the survey was cross-sectional, thereby limiting its ability to establish cause-effect relationships and track respondents over time to understand behavioral changes.

Conclusion

FP discontinuation among Nigerian women is influenced by their level of education, religion, parity, employment, region, fear of adverse effects, method failure and decision-making styles. More than half of the study participants discontinued FP for reasons other than wanting to have children. A discontinuation of this magnitude and scope without fertility intention or a desire to bear children is disastrous to individuals, families and communities; could result in unplanned pregnancy, unsafe abortion, maternal health risks and even death; and may also contribute to increasing Nigeria’s already uncontrollable high fertility rates.

Providing easy access to health care providers and friendly networks of relationships that allow women to freely discuss the potential adverse effects of FP; an ability to seamlessly and instantaneously switch from an uncomfortable method to an acceptable, appropriate and effective method; involving male partners, community and religious leaders in the discussion; dispelling misconceptions about FP; using an adequate follow-up mechanism for women who use an FP method; and bringing FP methods to women through outreach to communities, worship centers and marketplaces could increase FP continuation in Nigeria. Policies to raise awareness are needed so that women understand the negative effects of FP discontinuation on their reproductive health, children and communities. Future research should focus on men’s roles in contraceptive discontinuation, as well as the factors that may increase men’s involvement in FP use.

Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

Conflict of interest

The authors have no conflict of interest to declare.

Ethical approval

The National Health Research Ethics Committee of Nigeria (NHREC) and the ICF Institutional Review Board provided ethical approval to the DHS program for the survey. The DHS program granted permission to use the 2018 NDHS datasets for this study.51 There was no identifiable information about the respondents. Detailed information on the DHS program’s ethical procedures can be found at https://goo.gl/ny8T6X. In addition, there were no additional ethical requirements because this study was based on publicly available data.

Authors contributions

TOM, RDA and TFO conceptualized and designed the study. TOM analyzed and interpreted the data. TOM, RDA and TFO wrote the manuscript. All authors have critically
reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

Acknowledgement

The authors thank the Demographic and Health Surveys Program for the permission to use the Nigeria DHS datasets for this study.

References

1. World Health Organization. Family planning/contraception methods fact sheet; 2020. https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception.
2. Alenezi GG, Haridi HK. Awareness and use of family planning methods among women in Northern Saudi Arabia. Middle East Fertil Soc J 2021; 26: 1–8.
3. Shaweno T, Kura Z. Determinants of modern contraceptive use among sexually active men in Ethiopia; using EDHS 2016 national survey. Contracept Reprod Med 2020; 5(1): 5–11.
4. Hubacher D, Trussell JA. Definition of modern contraceptive methods. Contraception 2015; 92(3): 420–421.
5. Michael TO, Ekpenyong AS. The polygyny-fertility hypothesis: new evidences from Nigeria. Nigeria J Soc Anthropol 2018; 16(1): 166–171.
6. United Nations. World family planning 2017-highlights (ST/ESA/SER. A(4/14)); 2017. https://www.un.org/en/development/desa/population/publications/pdf/family/WFP2017_Highlights.pdf.
7. Kantorová V, Wheldon MC, Ueffing P, Dasgupta ANZ. Estimation progress towards meeting women’s contraceptive needs in 185 countries: a Bayesian hierarchical modelling study. PLoS Med 2020; 17(2): e1003026.
8. Meliha ZE, Lus MG. Impulsivity, unplanned pregnancies, and contraception among women with bipolar disorder. NeuroPsychiatr Dis Treat 2020; 16: 407–414.
9. Boglaeva LV. Contraceptive method mix in the context of family planning programmes in developing countries. Popul Econ 2021; 5(3): 56–75.
10. National Population Commission (NPC) [Nigeria], ICF. Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF; 2019.
11. Chilinda I, Cooke A, Lavender DT. Contraceptive unmet needs in low and middle-income countries: a systematic review. Afr J Reprod Health 2021; 25(2): 162–170.
12. Population Reference Bureau. Family Planning Data Sheet; 2019. https://www.prb.org/wp-content/uploads/2019/09/fp-data-sheet-2019.pdf.
13. Tsui AO, Brown W, Li Q. Contraceptive practice in sub-Saharan Africa. Popul Dev Rev 2017; 43: 166–191.
14. Family Planning. Factsheet Family Planning 2020: new and renewed commitments Washington, DC; 2020. https://www.familyplanning2020.org/sites/default/files/FP2020_NewCommittments_7.13.2016-FINAL.pdf.
15. Searchinger T, Hanson C, Waite R, Leeson G, Lipinski B. Achieving replacement level fertility: installment 3 of “Creating a sustainable food future”. World Resources Institute; 2013. Working Paper. https://files.wri.org/d8/c3fs-public/achieving_replacement_level_fertility_0.pdf.
16. Frejka T. Half the world’s population is reaching below replacement fertility. Institute for Family Studies; 2017. https://ifstudies.org/blog/half-the-worlds-population-is-reaching-below-replacement-fertility.
17. Isi B, Ibrahim SM, Mandara M, Bako B. Uptake and reason for discontinuation of long-acting reversible contraception in a tertiary hospital: a 5 years retrospective review. Afr J Med Health Sci 2020; 19(9): 142–149.
18. Amu EO, Solomon OO, Odu OO. Knowledge, attitude and pattern of contraceptive use among female students of Osun State College of Education, Ilora, South-Western, Nigeria. PJJHIS 2020; 14(2): 878–881.
19. National Bureau of Statistics (NBS), United Nations Children’s Fund (UNICEF). Multiple Indicator Cluster Survey 2016–17, Survey Findings Report; 2017. Abuja, Nigeria.
20. United Nations. Sustainable Development Goals. New York: United Nations; 2015. https://www.un.org/sustainabledevelopment/family-planning.
21. Osoimehin B. Family planning as a critical component of sustainable global development. Glob Health Action 2015; 8: 29978.
22. Pappa S, Naik R, Sacher S, Sule S. Investing in family planning to achieve sustainable development goals in Nigeria: key actions for federal and state decision-makers. HP Policy Brief; 2017. http://www.healthpolicyplus.com/nss/pubs/7174-7314_NigeriaSDGBrief.pdf.
23. Wegs C, Creanga AA, Galavotti C, Walamala E. Community dialogue to shift social norms and enable family planning: an evaluation of the family planning results initiative in Kenya. PLoS One 2016; 11(4): e0153907.
24. Harrington EK, Dworkin S, Withers M, Onono M, Kwenza Z, Newmann SJ. Gendered power dynamics and women’s negotiation of family planning in a high HIV prevalence setting: a qualitative study of couples in western Kenya. Cult Health Sex 2016; 18(4): 435–469.
25. Michael TO, Scent GAT. Correlates of contraceptive use and the desire for less children in Nigeria. Nigeria J Soc Anthropol 2017; 1(2): 85–100.
26. Barden-O’Fallon J, Speizer IS, Calhoun LM, Mouroumai NA. Return to pregnancy after contraceptive discontinuation to become pregnant: a pooled analysis of West and East African populations. Reprod Health 2021; 18: 141. https://doi.org/10.1186/s12978-021-01193-w.
27. Bornstein M, Norris A, Shaba G, Huber-Krum S, Gipson JD. “I know my body and I just can’t get pregnant that easily” – women’s use and non-use of the injection to manage fertility. SSM-Qual Res Health 2022; 2:100071. https://doi.org/10.1186/s12978-021-01193-w.
28. Mesha M, Almaleh A, Daka D. Prevalence and factors associated with early discontinuation rate of Implanon utilization among women who ever used Implanon in Kucha District of Somali Region, Ethiopia. BMC Women’s Health 2020; 20(1): 239–243.
29. Fox K. The impact of side effects on family planning use among female clients of the public health services in Jamaica. West Indian Med J 2001; 50(3): 209–213.
30. Schumpf LA, Stephens MJ, Nsarko NE, Akosah E, Baumgartner JN, Ohemeng-Dapaah S, et al. Side effect concerns and their impact on women’s uptake of modern family planning methods in rural Ghana: a mixed methods study. BMC Womens Health 2020; 20: 57. https://doi.org/10.1186/s12978-020-0885-0.
31. Pannam GD, Bruin VR, Abreu MMA, Lima GB. Epidemiological survey on the perception of adverse effects in women using contraceptive methods in Brazil. Rev Bras Ginecol Obstet 2022; 44(1): 25–31.
32. Staveteig S. Fear, opposition, ambivalence, and omission: results from a follow-up study on unmet need for family planning in Ghana. PLoS One 2017; 12(7): e0182076.
33. Rademacher KH, Sergison J, Glish L, Maldonado LY, Mackenzie A, Yacobson I. Menstrual bleeding changes are NORMAL: proposed counseling tool to address common reasons for non-use and discontinuation of contraception. Glob Health 2018; 6(3): 8.
34. Ali MM, Cleland J. Contraceptive switching after method-related discontinuation: levels and differentials. Stud Fam Plann 2010; 41: 129–133.
35. Burusie A. Reasons for premature removal of Implanon among users in Arsi Zone, Oromia Region, Ethiopia. Reprod Syst Sex 2015; 4(1). https://doi.org/10.4172/2161-038X.1000148.
36. Siyoum M, Mulaw Z, Abuhay M, Kebebe H. Implanon discontinuation rate and associated factors among women who ever used implanon in the last three years in Debre Markos Town, North Ethiopia. ARC J Public Health Community Med 2017; 2(1): 8–16.
37. Ojo IE, Ojo TO, Orji EO. Why do married women procure abortion? Experiences from Ile-Ife, south western Nigeria. Afr Health Sci 2021; 21(1). https://doi.org/10.4314/ahs.v21i1.42.
38. Katz AJ, Ramirez AM, Bercu C, Filippa S, Dirisu O, Egwuatu I, et al. I just have to hope that this abortion should go well”: perceptions, fears, and experiences of abortion clients in Nigeria. PLoS One 2022; 17(2):e0263072.
39. Shaaban OM, Glasier AF. Pregnancy during breastfeeding in rural Egypt. Contraception 2008; 77: 350–354.
40. Tilley IB, Shaaban OM, Wilson M, Glasier A, Mishell DR. Breastfeeding and contraception use among women with unplanned pregnancies less than 2 years after delivery. Int J Gynaecol Obstet 2009; 105: 127–130.
41. Tsui AO, McDonald-Mosley R, Burke AE. Family planning and the burden of unintended pregnancies. Epidemiol Rev 2010; 32: 152–174.
42. Mack N, Crawford T, Guise J, Chen M, Grey T, Feldblum P, et al. Strategies to improve adherence and continuation of shorter-term hormonal methods of contraception (Review). Cochrane Database Syst Rev 2019; 4(4): 1–59. https://doi.org/10.1002/14651858.CD004317.pub5.
43. Scent GAT, Michael TO, Ojo TF; Oluwaseun AI. Cohabitation and fertility behaviour in Nigeria. Afr J Psychol Stud Soc Iss 2019; 22(1): 91–101.
44. Blackstone SR, Nwaozuru U, Iwelummor J. Factors influencing contraceptive use in sub-Saharan Africa: a systematic review. Int Q Community Health Educ 2017; 37: 79–91.
45. Igras S, Burgess S, Chantelois-Kashal H, Diakité M, Giuffrida M, Lundgren R. Pathways to modern family planning: a longitudinal study on social influence among men and women in Benin. Stud Fam Plann 2021; 52(1): 59–76.
46. Olatunji A, Odimegwu C, De-Wet N, Akinyemi JO. Does female autonomy affect contraceptive use among women in northern Nigeria? Afr J Reprod Health 2019; 23(2): 92–100.
47. Gammage S, Joshi S, Rodgers Y. The intersections of women’s economic and reproductive empowerment. Fem Econ 2020; 26(1): 1–22.
48. Kriel Y, Milford C, Cordero J, Suleman F, Beksinska M, Steyn P, et al. Male partner influence on family planning and contraceptive use: perspectives from community members and healthcare providers in KwaZulu-Natal, South Africa. Reprod Health 2019; 16: 1–15.
49. Obare F, Odwe G, Cleland J. Men’s needs and women’s fears: gender-related power dynamics in contraceptive use and coping with consequences in a rural setting in Kenya. Cult Health Sex 2021; 23(12): 1748–1762. https://doi.org/10.1080/13691058.2020.1807605.
50. Sarnak DO, Wood SN, Zimmerman LA, Karp C, Makumbi F, Kibira SPS, et al. The role of partner influence in contraceptive adoption, discontinuation, and switching in a nationally representative cohort of Ugandan women. PLoS One 2021; 16(1):e0238662.
51. DHS Program. The Demographic and Health Surveys Program Website; 2021 https://dhsprogram.com.

How to cite this article: Agbana RD, Michael TO, Ojo TF. Family planning method discontinuation among Nigerian women: Evidence from the Nigeria Demographic and Health Survey 2018. J Taibah Univ Med Sc 2023;18(1):117–124.