Prevalence and Determinants of Contraceptive Use and Intention among Women in Nigeria

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ABSTRACT

Despite government intervention programmes and policy, contraceptive use remains lowest in sub-Saharan Africa, Nigeria inclusive. The study examines the prevalence of contraceptive use and intention. The associated factors influencing contraceptive use and intention among women are also examined. Data was explored among 41,821 women of reproductive age (15-49) years from 2018 Nigeria Demographic and Health Survey for the analysis. The study found that 11% women were using modern method, 4% were using traditional method, 34% intended to use contraceptives while 52% did not intend to use contraceptives. The chi-square analysis established a significant association (p < 0.001) between associated factors (such as age, region, education, religion, place of residence, and knowledge of any method) and contraceptive use and intention. At the multivariate level, highest odds ratios were observed among women aged 25-29 years (OR=5.38, p < 0.001, C.I:4.87-5.93); Northwest Nigeria is about 2 times more likely to use contraceptives and intend to use (OR=1.53, p < 0.001, C.I:1.41-1.65). Christian women were 17 times more likely to use contraceptive and intend than those into other religion (OR=17.24, p < 0.001, C.I:7.66-38.79). Again, women with no education are 34% less likely to use contraceptives and intend to use (OR=0.34, p < 0.001, C.I: 0.31-0.37). Women who did not have knowledge of any family planning method are 28% less likely to use contraceptive and intend than those who knew any method (OR=0.28, p < 0.001, C.I: 0.25-0.31). Women who never heard about family planning method were 63% less likely to use contraceptive and intend to use than those who have heard any method (OR=0.63, p < 0.001, C.I: 0.60-0.66). Governments at all levels should intensify efforts through awareness campaign and sensitization programs that focus on the benefits of contraceptive use and intention. Consequently, promoting maternal and child health in Nigeria.

Keywords: contraceptive use and intention, contraceptive method, socio-demographic characteristics, associated factors

INTRODUCTION

Contraceptive use refers to the practice of using various ways to avoid unwanted pregnancies while intention refers to plans or wants to use contraception in the future (World Health Organization, 2020). In general, there are three different ways to utilize contraceptives: traditional, modern, and folkloric methods. Male and female condoms, pills, implants, vasectomy, injectables, and intrauterine devices (IUDs) are some examples of contemporary contraception (Festin, 2020; Gobena & Kassie, 2024; Kinfe & Mankelkl, 2024). The traditional contraceptives include rhythm, withdrawal, and lactational amenorrhea (Budu et al., 2023; Namasivayam et al., 2023; Wright et al., 2023) while the examples of folkaric method included other types mentioned which were not categorized under traditional methods (Akinwande et al., 2024).

Globally, 12% of married women did not use contraception. This simply translate to mean that majority of the married women used contraceptives. Despite the fact that more married women use contraceptives globally, there is low contraceptive use in the developing countries. The majority of married women that used

contraceptives are from developed countries (Olajide et al., 2024). In sub-Saharan Africa, the prevalence of married women currently using any method of contraceptive varies across countries with Rwanda having the highest prevalence rate (64.1), followed by Kenya (62.5), Lesotho (60.2), Malawi (59.2). On the other hand, there are some countries within the sub-Saharan Africa with low contraceptive use. Some of the countries with low contraceptive use include Eritrea (8.0), Sudan (8.7), Guinea (10.9), Niger (13.9), Mauritania (14.3), Benin (15.5), Nigeria (16.6) among others (Commission, 2019).

Nigeria is the most populous country in Africa, home to more than 200 million people, making up almost 15% of the continent's total population. Achieving sustainable development and enhancing mother and child health outcomes are severely hampered by the nation's fast population growth rate and restricted access to reproductive health services. Women can manage their fertility, spread out births, and lower their risk of unwanted pregnancies by using contraceptives, which is an essential part of reproductive health. However, just 17% of married women in Nigeria use contemporary contraceptives, indicating that the country's contraceptive prevalence rate (CPR) is still low (Commission, 2019).

Evidences from previous studies established some of the factors influencing contraceptive and intention among women of childbearing age. For instance, Olajide et al. (2024) investigated the variables that affect family planning use among women who visit a teaching hospital in Oyo State, Nigeria. More over half (54%) did not use family planning, according to their survey. Additionally, their study discovered that the usage of family planning was substantially correlated with age, parity, marital status, women's and husbands' occupations, as well as the education levels of the two parties. In a different study, Kuug et al. (2024), the researchers examined factors associated with the intention to use modern contraceptives among 13,582 women of childbearing age in Benin. Their study opined that about thirty-five percent of women had the intention to use contraceptives. Their study further pointed that women age 30-34 years, 35-39 years, 40-44 years, 45-49 years, Muslim women and those who perceived the distance to health facility not to be a problem were less likely to have the intention to use modern contraceptives compared with their counterpart. However, women who were employed, had completed primary, secondary, and higher education, were religiously non-practicing, had working partners, had heard about family planning in the media, and came from the poorest, middle-class, wealthiest, and most affluent households were more likely to intend to use contraceptives than their counterparts.

While previous studies have identified associated factors influencing contraceptive and intention such as socio-demographic characteristics, cultural and religious beliefs, access to family planning information services and partner involvement and support (Adebowale et al., 2013; Adeyemi et al., 2016; Odimegwu & Adewoyin, 2021), there is dearth of studies on the role of emerging factors such as mass media and mobile health technologies on contraceptive use and intention. In order to address Nigeria's high fertility rate and population increase, it is imperative to comprehend the prevalence and factors of contraceptive usage and intention. Contraceptive use and intention can be greatly impacted by expanding access to family planning services, educating people, and encouraging good attitudes toward contraception. Thus, this research.

Research Questions

This study provided answers to the following questions:

i. What is the prevalence of contraceptive use and intention among women of childbearing age in Nigeria?

ii. What are the associated factors influencing contraceptive use and intention among women of childbearing age in Nigeria?

Research Objectives

Specifically, the objectives of this study are to:

i. Examine the prevalence of contraceptive use and intention among women of childbearing age in Nigeria; and

ii. To determine the associated factors influencing contraceptive use and intention among women of childbearing age in Nigeria.

METHODOLOGY

Data Source

The data for this study were obtained from the 2018 Nigeria Demographic and Health Survey (NDHS), conducted by the National Population Commission (NPC) in collaboration with the National Bureau of Statistics (NBS) and other relevant stakeholders.

Survey Design

The NDHS employed a stratified, two-stage cluster sampling design. Nigeria was divided into 37 strata (36 states and Federal Capital Territory), and 1,400 clusters were selected from each stratum. Households were then systematically selected from each cluster.

Sample size

The survey sample 41,821 women of childbearing aged 15-49 years

Data Collection

Trained enumerators collected data using structured questionnaires:

    i.   Household Questionnaire

    ii.   Woman's Questionnaire (for women aged 15-49 years)

    iii.   Man's Questionnaire (for men aged 15-59 years)

Ethical consideration

The researchers requested for the approval to use 2018 Demographic and Health Survey. The request was granted and made accessible to the researchers, strictly for this study.

Measurement of variables

Dependent variable

Dependent variable for this study is contraceptive use and intention. This variable on the dataset was collapsed into two categories ("0"=non intention users) and ("1"=contraceptive use and intention).

Independent variables

This study employed seven (7) associated factors. The associated factors are: age, region, type of place of residence, education level, religion, knowledge of contraceptive methods and awareness of family planning method through mass media.

    i.   Age was categorized into 7 groups ("1"=15-19), ("2"=20-24), ("3"=25-29), ("4"=30-34), ("5"=35-39), ("6"=40-44), ("7"=45-49).

    ii.   Region was grouped into 6 geo-political zones of Nigeria ("1"=North Central), ("2=North East), ("3"=North West), ("4"=South East), ("5"=South South), and ("6"=South West)

    iii.   Type of place of residence was categorized into two ("1"=Urban), ("2"=Rural)

iv.   Education level was grouped into 4 groups ("0"=No education), ("1"=Primary), ("2"=Secondary), and ("3"=Higher)

v.   Religion was regrouped into 4 categories ("1"=Christianity), ("2"=Islam), ("3"=Traditionalist) and ("4"=Other religion)

vi.   Knowledge of contraceptive methods was grouped into two ("0"=Know no method) and ("1"= Knows any method of modern/traditional/folkloric)

vii.   Heard of family planning method through mass media was grouped into two ("0"=Never heard of any family planning method) and ("1"= Heard of family planning through TV/radio/newspaper/magazines/text messages on mobile phone)

Data Analysis

Data was weighted and analyzed using SPSS version 27. Descriptive statistics such as frequency counts, charts/graphs and summaries were used to determine the prevalence of contraceptive use and intention. Inferential statistics on the other hand, such as chi-square (bivariate level) and binary logistic regression (multivariate level) were employed to examine the relationship between associated factors and dichotomous dependent variable (contraceptive use and intension).

RESULTS

Objective One: Examine the prevalence of contraceptive use and intention among women in Nigeria
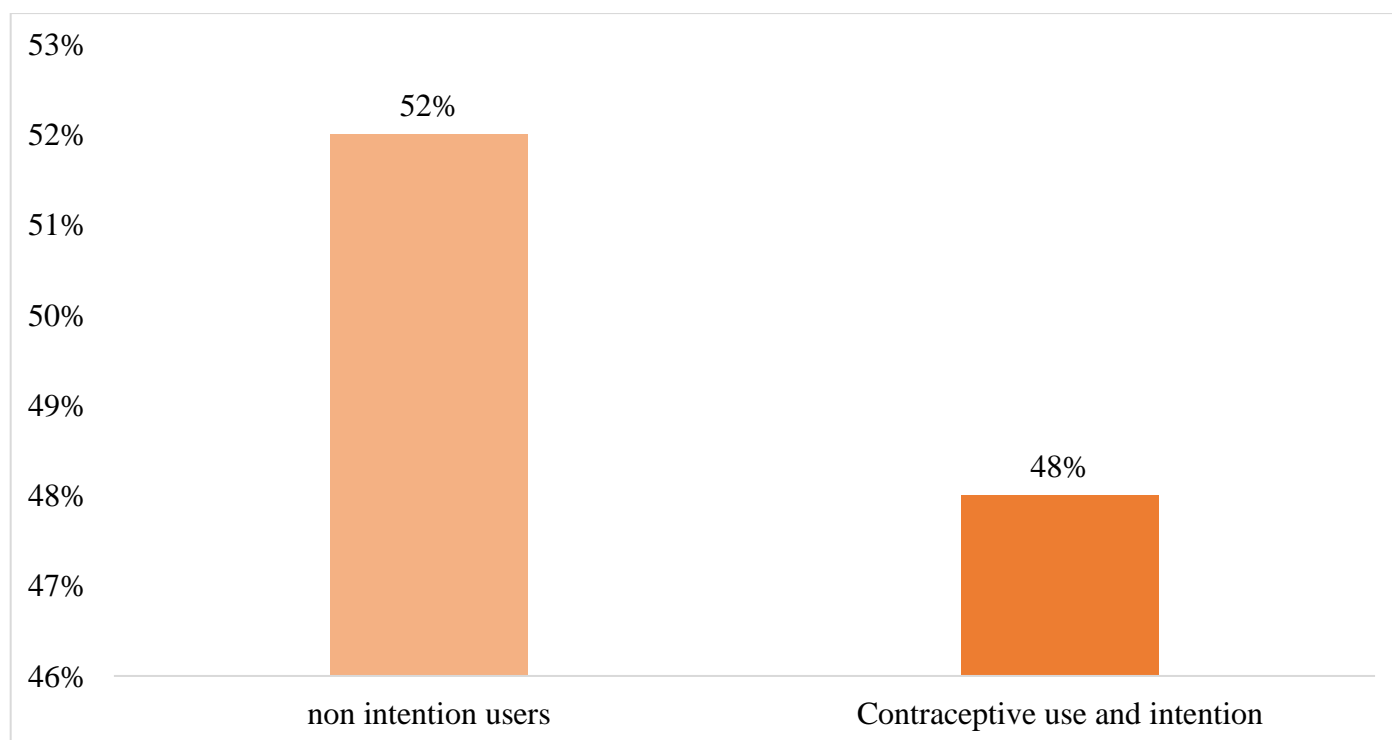

Figure 1 showing prevalence of contraceptive use and intention among women in Nigeria

Source: 2018 Nigeria Demographic and Health surveys

Figure 1 above showed the prevalence of contraceptive use and intention among women of childbearing aged 15-49 years. Out of a total number of 41,821 sampled women for this study, 20,121 (48%) used and intended to use contraceptives while 21,700 (52%) were non intention users. By implication, it means that majority of the women interviewed never had the intention to use contraceptives. This seems to account for the reason for high population growth rate in Nigeria when compared with some other Africa countries.
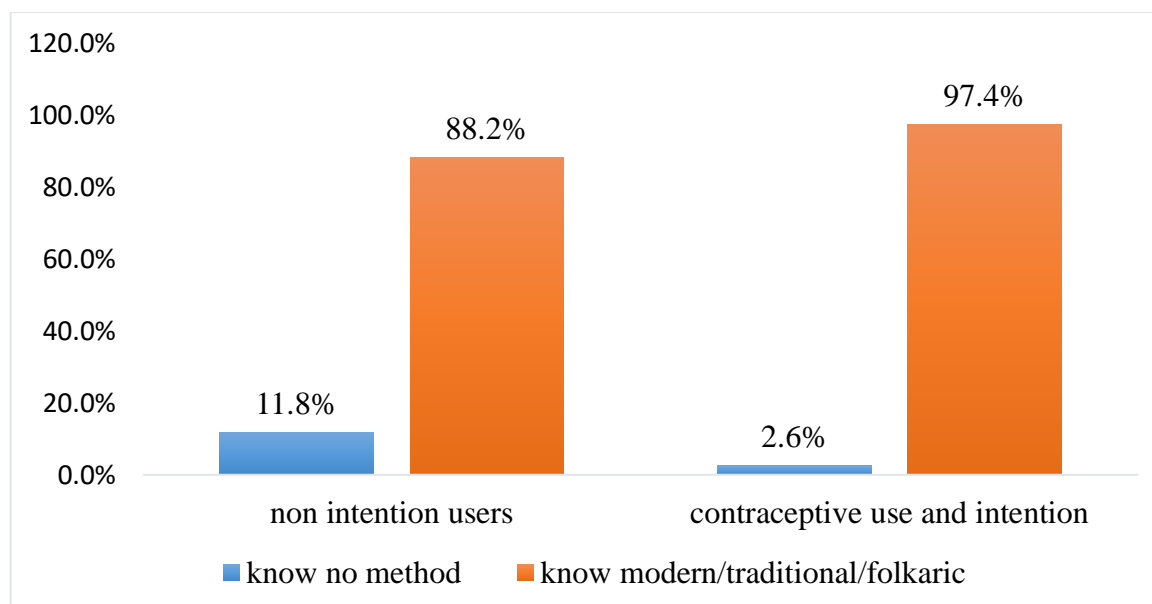
Figure 2 showing prevalence of contraceptive use and intention among women by knowledge about contraceptive methods

Source: 2018 Nigeria Demographic and Health surveys

Figure 2 above showed that out of 21,700 women who were non intention users of contraceptives, majority, 19,147 (88%) knew about any contraceptive methods (modern/traditional/folkaric) while 2,552 (12%) did not know any method. By implication, it showed that a majority of the non-user of contraceptives knew of any contraceptive methods. On the other hand, out of 20,121 who used contraceptives and intended to use, 19,605 (97%) knew about any method while a handful proportion, 516 (3%) were not knowledgeable about contraceptive methods. By implication, it means that the knowledge of contraceptive use translates to contraceptive use. In all, 38,752 (93%) knew about any method of contraceptives while 3,068 (7%) did not know any method.

Objective Two: Determine the associated factors influencing contraceptive use and intention among women in Nigeria

Table 1: Associated factors influencing contraceptive use and intention among women in Nigeria

Associated factors	Contraceptive use and intention		Total (N=41,821)	Chi-square test (χ^2)
	Non intention users (N=21,700)	Contraceptive use and intention (N=20,121)		
Age (in years)				
15-19	4,454 (20.5%)	3,994 (19.8%)	8,448 (20.2%)	1867.90***
20-24	3,093 (14.3%)	3,742 (18.6%)	6,835 (16.3%)	
25-29	3,195 (14.7%)	4,059 (20.2%)	7,254 (17.3%)	
30-34	2,743 (12.6%)	3,435 (17.1%)	6,178 (14.8%)	
35-39	2,746 (12.7%)	2,717 (13.5%)	5,463 (13.1%)	
40-44	2,481 (11.4%)	1,459 (7.3%)	3,941 (9.4%)	
45-49	2,986 (13.8%)	716 (3.6%)	3,702 (8.9%)	
Region				
North Central	2,998 (13.8%)	2,892 (14.4%)	5,890 (14.1%)	764.158***
North East	3,968 (18.3%)	2,669 (13.3%)	6,637 (15.9%)	
North West	7,067 (32.6%)	5,158 (25.6%)	12,225 (29.2%)	
South East	2,163 (10.0%)	2,800 (13.9%)	4,963 (11.9%)	

South South	2,452 (11.3%)	2,388 (11.9%)	4,840 (11.6%)	
South West	3,052 (14.1%)	4,214 (20.9%)	7,266 (17.4%)	
Type of place of residence				
Urban	8,218 (37.9%)	10,945 (54.4%)	19,163 (45.8%)	1148.07***
Rural	13,482 (62.1%)	9,177 (45.6%)	22,659 (54.2%)	
Highest education level				
No education	10,199 (47.0%)	4,404 (21.9%)	14,603 (34.9%)	3439.78***
Primary	3,282 (15.1%)	2,756 (13.7%)	6,038 (14.4%)	
Secondary	6,714 (30.9%)	9,869 (49.0%)	16,583 (39.7%)	
Higher	1,504 (6.9%)	3,092 (15.4%)	4,596 (11.0%)	
Religion				
Christianity	8,180 (37.7%)	11,037 (54.9%)	19,217 (46.0%)	1276.40***
Islam	13,350 (61.5%)	9,022 (44.8%)	22,372 (53.5%)	
Traditionalist	89 (0.4%)	56 (0.3%)	145 (0.3%)	
Other religion	81 (0.4%)	6 (0.0%)	87 (0.2%)	
Knowledge of family planning method				
Know no method	2,552 (11.8%)	516 (2.6%)	3,068 (7.3%)	1298.85***
Knows any method of modern/traditional/folkloric	19,147 (88.2%)	19,605 (97.4%)	38,752 (92.7%)	
Heard of family planning method through mass media				
Never heard	15,790 (72.8%)	11,243 (55.9%)	27,033 (64.6%)	1303.26***
Heard of family planning through TV/radio/ newspaper/ magazines/text messages on mobile phone	5,909 (27.2%)	8,878 (44.1%)	14,787 (35.4%)	

Source: 2018 Nigeria Demographic and Health surveys

Sig *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 1 showed the association between associated factors and contraceptive use and intention among women of childbearing age. The associated factors used in this study include: age, region, type of place of residence, education level, religion, knowledge of contraceptive methods and awareness of family planning method through mass media. The table further showed that all the associated factors were significantly associated with contraceptive use and intention. For age (χ^2=1867.90, $p < 0.001$), region (χ^2=764.16, $p < 0.001$), type of place of residence (χ^2=1148.07, $p < 0.001$), education level (χ^2=3439.78, $p < 0.001$), religion (χ^2=1276.40, $p < 0.001$), knowledge of family planning method (χ^2=1298.85, $p < 0.001$) and heard of family planning method through mass media such as television, radio, newspaper and mobile phone among others (χ^2=1303.26, $p < 0.001$). By implication, it means that quite a number of women had no opportunity to hear about family planning methods from various mass media mentioned above.

Table 2: Binary Logistics Regression showing the Relationship between Contraceptive use and Intention and Associated Factors

Associated factors	P-value	Odds Ratio	95% Confidence Interval for EXP (B)	
			Lower	Upper
Age (in years)				
15-19	< 0.001	4.201	3.801	4.643
20-24	< 0.001	5.075	4.590	5.611
25-29	< 0.001	5.375	4.868	5.934
30-34	< 0.001	5.257	4.753	5.814
35-39	< 0.001	4.093	3.696	4.532

40-44	< 0.001	2.526	2.266	2.817
RC	RC	RC	RC	RC
Region				
North Central	< 0.001	1.227	1.132	1.330
North East	< 0.001	1.344	1.236	1.461
North West	< 0.001	1.527	1.412	1.651
South East	< 0.001	0.790	0.725	0.861
South South	< 0.001	0.666	0.613	0.724
RC	RC	RC	RC	RC
Type of place of residence				
Urban	< 0.001	1.325	1.262	1.391
RC	RC	RC	RC	RC
Highest education level				
No education	< 0.001	0.342	0.314	0.374
Primary	< 0.001	0.636	0.583	0.694
Secondary	< 0.001	0.862	0.800	0.928
RC	RC	RC	RC	RC
Religion				
Christianity	< 0.001	17.236	7.659	38.788
Islam	< 0.001	8.634	3.837	19.429
Traditionalist	< 0.001	8.030	3.342	19.296
RC	RC	RC	RC	RC
Knowledge of method				
Know no method	< 0.001	0.280	0.253	0.311
RC	RC	RC	RC	RC
Heard of family method through mass media	< 0.001			
Never heard	< 0.001	0.633	0.604	0.663
RC	RC	RC	RC	RC

Source: 2018 Nigeria Demographic and Health surveys

Significant: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

RC represent Reference Category

Table 2 above presented the binary logistic regression showing the relationship between a dichotomous dependent variable (contraceptive use and intention) and several independent variables such as age, region, education and religion among others. A multivariate level of analysis became necessary because all the associated factors were statistically significant at 0.05 level of significant at the bivariate level of analysis. The findings at the multivariate level of analysis had a similar pattern with the bivariate level. All the associated factors were statistically significant at 5% level of significant. Highest odds ratios was observed among women aged 25-29 years (OR=5.38, $p < 0.001$, C.I:4.87-5.93); Northwest Nigeria is about 2 times more likely to use contraceptives and intend to use (OR=1.53, $p < 0.001$, C.I:1.41-1.65). Women in urban areas are 1.3 times more likely to use contraceptives and intend (OR=1.33, $p < 0.001$, C.I:1.26-1.39). Christian women were 17 times more likely to use contraceptive and intend than those into other religion (OR=17.24, $p < 0.001$, C.I:7.66-38.79). On the other hand, there are some factors with lower odd ratio. For instance, women with no education are 34% less likely to use contraceptives and intend to use (OR=0.34, $p < 0.001$, C.I: 0.31-0.37). Women who did not have knowledge of any family planning method are 28% less likely to use contraceptive and intend than those who knew any method (OR=0.28, $p < 0.001$, C.I: 0.25-0.31). Women who never heard about family planning method were 63% less likely to use contraceptive and intend to use than those who have heard any method (OR=0.63, $p < 0.001$, C.I: 0.60-0.66).

DISCUSSION OF FINDINGS

The study found more than half of the women of childbearing age (15-49) years were non-intention users of contraceptive use. This simply suggest the reason why Nigeria population continues to grow despite government actions and programmes to discourage high fertility. The finding corroborates with the findings of Kuug et al. (2024) who found that only thirty-five percent of women in Benin used contraceptive use and intend to use. The finding s also similar to that of Olajide et al. (2024) who established that majority of the sampled women did not utilize family planning.

Again, findings from the multivariate analysis revealed a significant relationship between all the associated factors and contraceptive use and intention. By implication, it means that all the associated factors used in this study significantly predict of contraceptive use and intension. This finding is in line with the findings from previous researchers such as (Adebowale et al., 2013; Adeyemi et al., 2016; Odimegwu & Adewoyin, 2021) who established a significant relationship between socio-demographic characteristics, cultural and religious beliefs, access to family planning information services and partner involvement and support and contraceptive use.

CONCLUSION

The majority of women did not intend to use any contraceptive method. There were large number of non-intention users despite a sizeable number of women who knew any method of family planning. All the associated factors were predictors of contraceptive use and intention. A substantial number of women had never heard family planning methods through any of the mass media channels.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

1. Governments at all levels (local, state and federal) should intensify more efforts through awareness campaign and sensitization programs through various mass media channels. The awareness should focus on the benefits of contraceptive use and intention. Consequently, promoting maternal and child health in Nigeria.
2. There is the need for more advocacy to women in the community and religious centers, particularly in the rural areas. The advocacy should primarily emphasized on reproductive rights especially when it comes to childbearing. By so doing, this will encourage more contraceptive use and intention among them.
3. More women should be educated and knowledgeable about family planning methods

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