

# Fertility Desire and Contraceptive Use among Women in Nigeria

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**Abstract**—Studies have showed that decision making at the household level whether joint or solely by husband or wife have effect on whether a woman would use contraceptive or not. This study examines regional differences in decision making in households on whether or not to use contraceptives and how this influence actual use in Nigeria. It employed the 2013 Nigeria Demographic Health Survey (NDHS) data set in which variables of interest were extracted. The data set was analysed using Univariate, Bivariate, and multivariate (i.e. binary logistic regression) techniques. Results of the analysis is statistically significant in husband/wife fertility desire on contraceptive use by place of residence (p-value = 0.000), education (p-value = 0.000), and wealth index (p-value = 0.000). Findings also showed statistically significant husband/wife fertility desire on contraceptive use by age of respondent (p-value = 0.000), religion (p-value = 0.000), region (p-value = 0.000), and work status (p-value = 0.000) among women. Binary logistic result shows that Women who want the same number of children as their spouse were 1.4 times as likely as those who don't know their husbands desire to use contraceptive methods, while women whose husband want fewer children were 1.8 times as likely as those who don't know to use contraceptive methods. Policy and programmes geared towards improving contraceptive decision making and use in households will need to consider these factors.

**Keywords**—fertility desire; contraceptive use; women

## I. INTRODUCTION

The goal of International Conference on Population and Development in 1974 is that the world today are able to access hitch free family planning services and regard it as fundamental right for women [4] [14]. It follows that people should be able to make decision pertaining to their productivity. Less than 222 million women were not able to adopt contraceptive and the result is unwanted pregnancy by 76% women worldwide [19]. However meeting the needs for family planning will abate 29 % of maternal deaths [2]. Developed countries has been experiencing low births rate as a result of increase in contraceptives use over the years [26] [12], while in developing countries birth rate are high. There are different modern methods of contraceptive available all over the world but the rates of use and accessing their services vary significantly which has resulted in the differences in child and maternal mortality, fertility rate and contraceptive use across the regions of the world [5]. Some regions might have a desire for a natural method due to their religions believe, in another region the modern method may be preferred, leading to the use of Family planning for contraception purposes [5].

The research has shown that an Africa man has higher desire for large family size [1] than their women counterpart thereby women are left out in determining the number of children they will give birth to and the decision to use contraceptive will solely be the man's decision [6] [15]. Evidence from Nigeria demographic and health survey (NDHS) show that there is a difference in total fertility rate across the regions with highest 6.7% in North West to the lowest 4.3% in South-South, it shows there are factors responsible for the variation [21]. Demand for children is determine by family size preference. Husband desire number of children will determine the number his wife will give birth to and invariably determine contraceptive use. In Nigeria, because man is known to be the head of the family, so wife will always admits her husband desire. In this case woman with husband wants more children will less likely use contraceptive [9]. Among the Yoruba, husband and wife fertility preference determines their fertility but husband desire influences their behaviour towards the number of children [9]. Therefore, this study looks into fertility preferences and contraceptive use in Nigeria.

According to behavioral models of fertility, individual or couple is unknowingly involved in fertility management which means individual or couples have desire concerning the number and timing of children they want to have [18]. Fertility preference is a result of biological factors, husband fertility desire, social expectation, marital conditions and child bearing experience [18]. Looking at the people's view about fertility desire, there are two paradigm broadly captured fertility preferences. Couple formulates number of their family size after they might have attained the desired fertility number. It means giving birth to another child must have being because the desired fertility number has not been reached. The second paradigm explained that couple takes decision about child bearing based on their current socioeconomic status and reproductive circumstances and not just by targeting family size or pursuing fertility desire [18]. Therefore, this study looks into how fertility desire influence contraceptive use in Nigeria.

Contraceptive use are affected by socio-economic factors which are culture, religion, marital status, husband and wife fertility desire, women autonomy, education, place of residence, wealth index, occupation, age, case of abortion or sexually transmitted disease and spousal communication [1] [6] [29] [27]. Nigeria, a study carried out on men sample on their reproductive decision in urban areas revealed that men want more children because it adds to their status thereby affecting women decision making on the use of contraceptive

[17] [15]. Although, men know at least one method of contraception but the decision to use by the wife must be made by them [17].

## II. SOCIO-DEMOGRAPHIC FACTORS AFFECTING CONTRACEPTIVE USE

An age difference is another factor that affects decision making about contraceptive [1] [3]. A wide difference in the age of the husband to his wife will create a gap in their discussion because wife will always see his husband to be old enough to be his father or uncle and more experience than her [3]. In such relationship, wife is seen by the husband to be his junior sister and inexperience that need instruction rather than discussion on the say matter. In this case, mutual agreement may not be reached on issues including reproductive health there by joint decision about family planning may not be possible [16]. Also, older women tend to enjoy joint decision on family planning with their husbands because they have already attained husband desired number of children and most of them go for highly effective ones. In Nigeria, family planning decision between husband and wife vary from urban to rural area, the reason being that urban area women are well educated and exposed to information about family planning than their rural counterpart. Another factor is the number of living children. Couple that has attained their desire number of children tends to use contraceptive after they might have discussed and joint agreement has been made. A study by Khan and Patel (1997) explained that couples that actually come to agreement on contraceptive use are those that have already have living children up to two or three and mostly initiated by men. Also, older women with four or five living children have discussed and took joint decision with their husband on contraceptive use [17].

## III. SOCIO-ECONOMIC FACTORS

Education increases women status. It gives them the opportunity of gainful employment as the men in the society and such position gives women upper hand in decision making about contraceptive [6]. Women are able to provide for household needs whether the husband give them money or not may decide to take decision about contraceptive alone or come to agreement with their husband [8] [20]. Husband and wife's education exposes them to benefits of reproductive health they got to know that limiting family size will improve his developmental state [23]. A lot of money spend on ante-natal care, hospital bill and children school fees will be used for investment and improve his financial status, such husband tends to be in agreement with his wife and make a joint decision to use contraceptive [23]. Religion plays an important role in family planning decision making [13] influence exposure to mass media information. Women that have attained the desired number of children have the desire to seek information about how to limit their births.

## IV. CULTURAL FACTOR

A woman with strong religion conviction is less likely to use contraceptive though her fertility desire have been met. Some

religions do not allow the use of artificial contraceptive so women go for less effective natural method or abstain from contraceptive [22].

## V. COMMUNICATION AND DECISION ABOUT FAMILY PLANNING

The effective communication is very important in decision making and it serves as one of the way of bringing men into safe motherhood [7] [15]. Couples that communicate on various issues of life, like buying of family asset like land, communication on care of extended family member, family visitation, number of children to have etc. [15] will not have problem in discussing and come to agreement about their reproductive health thereby adopt the use of contraceptive [6]. Bridge in communication could be affected by the position of individual in the family and society [11] [10] [15]. Husband's position as the breadwinner of the family and the wife as complete dependant on the husband for living and for the care of the home makes the husband decision to override the wife though they may come to an agreement but it is the husband decision that will be approved at the end of the day [30]. Several studies on decision making and its influence on contraceptive use has been documented, some look into impact of male perception attitude, knowledge and their involvement in contraceptive decision making [24] [5] [17] [15] [27]. Communication among husband and wife in some selected area [6], behavior and decision to use contraceptives [29] [30]. Little has been done on how husband and wife fertility preference could influence contraceptive use in Nigeria.

## VI. DATA AND METHOD

The study used Nigerian Demography Health Survey (NDHS) dataset of 2013. Generally, the NDHS data were collated on women, maternal and child health, fertility and family planning among others [21]. In this study, only relevant variables in the 2013 data file were extracted and analyzed. Nigeria has six zones, and 36 states including Federal Capital Territory (FCT). In order to select a representative sample, Nigeria is divided into 36 states, with each state subdivided into 774 local government areas (LGAs), and each LGA is divided into localities and each locality was further divided into enumeration area. The survey adopted multistage sampling and focus on women between age group 15-49. The selection of sample was by stratified three-stage cluster design making a total of 904 clusters [21]. Each cluster has map and households listing (45 households per cluster). Total sample size is 38,948 women in their reproductive age of 15 to 49 were included in this study. Data analysis was done at the Univariate, Bivariate, and multivariate levels.

The general model of the logistic regression equation used in the analysis is of the form

$$\ln\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k \quad \dots\dots\dots (1)$$

Where  $X_1, X_2, \dots, X_k$  are set of independent variables such as age, residence etc.,  $\beta_0$  is a constant and  $\beta$ 's are regression coefficients.  $P$  is the probability of currently using Contraceptive.

Variable	Frequency (N=38,948)	%	Variable	Frequency (N=38,948)	%
<b>Age</b>			<b>Wealth Index</b>		
15-19	7905	20.3	Poorest	6602	17.0
20-14	6714	17.2	Poorer	7515	19.3
25-24	7037	18.1	Middle	8001	20.5
25-29	5373	13.8	Richer	8450	21.7
30-34	4701	12.1	Richest	8380	21.5
40+	7218	18.5			
<b>Residence</b>			<b>Religion</b>		
Rural	23403	60.1	Islam-Trad	18930	48.8
Urban	15545	39.9	Catholic	4081	10.5
<b>Region</b>			Other Christian	15757	40.6
North Central	6251	16.0	<b>Currently working</b>		
North East	6630	17.0	No	14733	38.0
North West	9673	24.8	Yes	24006	62.0
South East	4462	11.5	<b>No of living Children</b>		
South-South	6058	15.6	None	11914	30.6
South West	5874	15.1	1-2	9596	24.6
<b>Educational Level</b>			3-4	8664	22.2
No Education	13740	35.3	5 or more	8774	25.5
Primary	7104	18.2	<b>Husb. desire for children</b>		
Secondary	14407	37.0	Don't know	6008	22.2
Higher	3697	9.5	Husband want more	10635	39.3
<b>Marital Status</b>			Husband want fewer	1053	3.9
Never in Union	9820	25.2	Both want same	9350	34.6
Married-living with partner	27274	70.0	<b>Contraceptive use</b>		
Not living with partner-			Not using	32723	84.0
widowed-divorced-separated	1854	4.8	Using	6225	16.0

TABLE 1: Background Characteristics of Respondents' Fertility Desire and Contraceptive Use

## VII. RESULTS

### A. Respondents' Background Characteristics

Results in Table 1 show that 69% of women who participated in the study were in age group 15-19 years, were located in the rural areas (60%), and were either married or living with their spouse (70%). The majority of respondents were from the three northern regions (57%), while the 42% were from the three southern regions.

Statistics show that 25.2% of respondents were not in union, 70.0% were married and living with their husband while 4.8% were widowed, divorced or separated. About 35% of respondents had no education, 37.0% had secondary education, and 18.2% had primary education while 9.5% had higher education. The distribution of respondents by religious affiliation indicates that 41.8% practiced Islamic/Traditional religion, 10.6% belonged to the Catholic faith while 40.6% were in other religious category. The distribution of respondents by working status shows the majority (62%) were working. Also, percentage distribution shows that 21.5% of respondents were in the richest category, while 21.7%, 20.5%, and 30% were in the rich, middle, and poorer/poorest wealth categories respectively.

Results show that the 48% of respondents had 3 or more children, while 25% had one or two children, and 31% had no children. With respect for husband desire for children, 39% reported that their husbands want more, 35% reported that they want the same number with their husband, and 4% reported that their husband want fewer number of children.

## VIII. MULTIVARIATE RESULTS

### A. Contraceptive use, background factors & fertility desire

Table 2 shows that the odds that women used contraceptives varied significantly by residence, region, religion, and husbands desire for more children. The odds that women in the study used contraceptives increased significantly by level of education, wealth index and number of living children.

With respect to residence, women in the urban areas were 1.2 times as likely as their rural counterparts to use contraceptives. Women in the south-west compared to those in the north-central were more likely to use contraceptives, but those in the north-east, north-west, and south-south were less likely to use. Results also show that women who have higher level of education were 3.8 times as likely as those who have no education to use contraceptive method, and those with secondary, and primary education were 3.1 times, and 2.4 times as likely as the reference category to use contraception. Women who reported that they were Christians were at least 1.5 times as likely as those who were Muslims/traditionalists to use contraception, and women in the richest wealth category were 4.3 times as likely as those in the poorest category to use contraceptive method, while those in richer, middle or even poorer category had 3.1 times, 2.4 times, and 1.5 times odds respectively.

The results of this study show that the odds of contraceptive use for women who had 5 or more children were 17 times more than those who had no children, women who had 3 or 4 children were 12 more likely, and those who had 1 or 2 children had at least 5 times likelihood of using contraceptive



than women who did not have children. Women who want the same number of children as their spouse were 1.4 times as likely as those who don't know their husbands desire to use contraceptive methods, while women whose husband want fewer children were 1.8 times as likely as those who don't know to use contraceptive methods.

## IX. DISCUSSION AND CONCLUSION

The aim of this study was to provide information of on husband/wife fertility desire and contraceptive use among women in Nigeria highlighting key factors. Results suggest clear regional variations with respect to the odds of using contraceptive, which should be useful information for programming these sub-groups. Future programming to cater for contraceptive needs of women should take into consideration other background factors such as residence, education, religion, wealth status index, number of living children that a woman has and husband's desire for children.

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TABLE 2: Multivariate Analysis of Fertility Desire and Contraceptive Use

Variable	Odd	Variable	Odd
<b>Age</b>		<b>Religion</b>	
15-19 (ref)	1.00	Islam-Trad (ref)	1.00
20-14	1.233	Catholic	1.703***
25-24	0.946	Other Christian	1.557***
25-29	0.923	<b>Wealth Index</b>	
30-34	1.029	Poorest (ref)	1.00
40+	0.744	Poorer	1.486**
<b>Residence</b>		Middle	2.329***
Rural (ref)	1.00	Richer	3.125***
Urban	1.224***	Richest	4.307***
<b>Region</b>		<b>Currently working</b>	
North Central (ref)	1.00	No (ref)	1.00
North East	0.344***	Yes	1.055
North West	0.383***	No of living children	
South East	0.981	<b>None</b>	1.00
South-South	0.830**	1-2	5.400***
South West	1.503***	3-4	12.537***
<b>Educational Level</b>		<b>5 or more</b>	17.414***
No Education (ref)	1.00	Husbands desire for children	
Primary	2.367***	Don't know (ref)	1.00
Secondary	3.142***	<b>Husband want more</b>	0.985
Higher	3.823***	Husband want fewer	1.831***
		Both want same	1.428***
	10441.226		
<b>Chi square</b>			
<b>Nagelkerke</b>	0.344		
<b>-2log Likelihood</b>	16485.020		
Source: NDHS, 2013.			