PERCEPTION AND USE OF CONTRACEPTIVES AMONG WOMEN IN FARMING HOUSEHOLDS OF RURAL OYO

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A b s t r a c t

The objective of this study was to investigate the extent and perception of contraceptive use among women from farming households in Oyo state, Nigeria. Descriptive statistics were used in profiling the socioeconomic characteristics of respondents, a multinomial logistic model was used to estimate the determinants of contraceptive usage, while the Likert scale was used to measure their perception towards the use of contraceptives. A total of 150 women were interviewed using a structured questionnaire. The results obtained indicated that while only 27% of the women were aware of contraceptives, 23% of them had used them. Cost was the most important consideration among the women for choosing a method as indicated by 41% of them. Further, among those who had not used any contraceptive, traditional and religious beliefs were their major considerations. The regression analysis showed formal education to be a significant factor (at α0.05) that increased the probability of women embracing contraception. Perception towards contraceptives among women in rural Oyo State, Nigeria was seen to be generally positive, although convenience of the methods (mean score 1.49) and side effects (means score 1.35) were considered to be drawbacks. It was recommended that more awareness needed to be created on birth control along with the introduction of modern methods of contraception with fewer side effects. Also, family planning interventions in Nigeria should be made context-specific and culturally appealing so as to increase their acceptability in rural farming communities.

1. Introduction

Developing countries often experience huge population growth that is partly attributable to high birth rates coupled with lowered death rates along with low adoption of contraception (Oyedokun, 2007). Sub-Saharan Africa (SSA) has one of the highest population growth rates in the world at 2.8% (USAID/HPI, 2007). Specifically, Ethiopia has a fertility rate of 5.4 births per woman (Ethiopia Demographic and Health survey, 2005; Population Reference Bureau, 2007) while it is 7births per women in Niger and5.3in Nigeria (NDHS 2018). High population growth puts enormous pressure on health, education and other public goods and infrastructure and as such can be an impediment in the reduction of child mortality, improvement of maternal health, attainment of universal primary education, environmental

sustainability and combating HIV/AIDS, malaria and other diseases as part of the Sustainable Development Goals (SDG) (Health Policy Initiative, 2007). Furthermore, highly populated societies are known to experience endemic poverty, inadequate education and large families that affect access to basic health services including family planning. Womenfolk in rural areas show the highest levels of unmet needs for family planning, estimated at 33 per cent as against only 17 per cent in higher income groups (USAID/HPI, 2007).

Globally, birth control is employed as a way of addressing the reproductive health needs of society, as well as mitigating population explosion (Shrestha et al., 2000). Birth control is a practice by which a couple determine the spacing of births

through the use of contraception. It is estimated that over 200 million women in developing countries desire to delay pregnancy or stop childbearing entirely, however they often use traditional methods of contraception which have proven to be less successful or use none at all due to lack of access or barriers to their use of contraception (Westoff, 2012).

The global increase in the use of contraceptives has afforded families the opportunity to choose the number and spacing of their children with attendant lifesaving advantages. However, despite the obvious merits, contraception and other modern family planning methods are still poorly adopted in the world's poorest and most populous societies. The significance of providing birth control, while recognizing the rights of individuals to make informed choices, is considered part of a wide-ranging set of services needed to fill the reproductive health needs of individuals and tackle more expansive development issues (Westoff and Cross, 2006). There, however, still exists a gap between the understanding and adoption of contraceptive use (Charles and Ann 2000). Insufficient understanding of family planning methods as well as incomplete or wrong information about their use or where to obtain them are some of the major factors responsible for the low acceptance of family planning in many developing countries including Nigeria (Gilliam et al., 2004; Onwudiegwu 2002; Orji and Castle, 2003). According to NDHS 2018, only 17% of married women of reproductive age use contraceptives in Nigeria. The United Nations estimate that Nigeria will attain a population of about 440 million persons by the end of the year 2050 making Nigeria globally the third most populated nation. Therefore, for its current per capita income to be maintained, economic output from agriculture and industry along with healthcare delivery and the provision of other social services would be required to double across the next 30 years. These estimates mean that rapidly increasing population would continue to be a matter of paramount concern for Nigeria for the foreseeable future.

Currently Nigeria has the largest population of any country in Africa, with more than 160 million people, at an annual population growth rate of 3% and a fertility rate of 5.7 lifetime births per woman (NDHS, 2018). Within the rural population, the growth rate was 1.31 as at 2011. These rural areas are usually characterized by high poverty levels, low levels of education and large household sizes. Since rural women are often less educated than their urban counterparts, often resulting in deficient knowledge of family planning services, the adoption of contraception is expected to be low relative to national estimates of 46 per cent. It is pertinent to note, however, that any potential reduction in population growth rate in Nigeria (and sub-Saharan Africa) will be based largely on the balance between the demand for smaller families and the supply of birth control technology (NDHS, 2018) especially in the rural areas.

As a consequence of this and other major demographic and health concerns, a national population policy was effected which was designed to achieve a reduction in the birth rate through voluntary birth control methods attuned to the nation's economic and social goals. Among the methods propagated under this policy were mass media campaigns. Studies have shown that exposure to a mass media family planning campaigns increases contraceptive use among households (Odimegwu et al, 1997; Westoff and Rodriguez, 1995). Overall, 20 per cent of currently married women have inadequate access to family planning - 15 per cent to child-spacing and 5 percent to child-limiting. It has been opined that were this gap to be bridged, the rate of contraceptive use for any of the methods would increase from 15 to 35 per cent and there would be an improvement in their welfare status in Nigeria (NDHS, 2018).

According to World Bank (2003), the adoption of family planning services is a critical subject for a developing nation which Nigeria is. Thus, family planning advocacy in countries like Nigeria with high birth rates especially in the rural areas has the capacity to reduce poverty and enhance their welfare status. This will contribute greatly to the empowerment of womenfolk, attainment of universal primary education and long term environmental sustainability (Daar, 2017). Hawkins et al. (1995) showed that family planning services confer many economic advantages to households, the country and the world at large. Further, family planning contributes to reduction in population growth, poverty reduction, welfare improvement and preservation of the environment as well as reducing demand for public goods and services (Rele et al., 2019).

This paper therefore sought to investigate the extent, perception and determinants of contraceptive use among rural women from farming households in Ido local government area of Oyo state, Nigeria.

2. Methodology

2.1. The study area

This study was conducted in Ido Local Government Area of Oyo state. Oyo state is an inland state in south-western Nigeria with its capital at Ibadan. It is bounded by Kwara state in the north, in the east by Osun state, in the south by Ogun state and in the west partly by Ogun state and partly by the republic of Benin. Ido Local Government Area of Oyo state has an area of 986 square kilometres and a population of 103,261 according to the 2006 population and housing census.

2.2. Data Collection/sampling Procedure

Respondents were obtained through a random selection of farming households within the LGA. Structured questionnaires were administered on the wives in each household. A sample size of 150 respondents was used. Data collection started in December 2015 and was concluded in March 2016.

2.3. Methods of Data Analysis

Descriptive statistics were used in profiling the socioeconomic characteristics of the respondents as well as their contraceptive awareness and use.

A multinomial logistic regression was estimated to examine the determinants of rural women's choice of contraceptive usage. This method has the advantage of permitting regression against more than two categories of the dependent variable, thereby allowing the determination of choice probabilities for each category (Gujarati, 2004; Deressa et al, 2009).

Given a dependent variable Y_i representing the decision of a respondent to use (or otherwise) contraception (where i = 1, 2, . . . j), the multinomial logistic model used incorporates three categories of the dependent variable: (i) those who have used contraception and never stopped (ii) those who have used contraception and stopped and (iii) those who have never used contraception. On the other hand, the vector $\mathbf{X}$ is a set of explanatory variables which influence the choice made (Y_i). The model, therefore estimates the effects of changes in the covariates of $\mathbf{X}$ on the response probabilities as follows:

$$P\left(Y_i = \frac{\text{j}}{\mathbf{X}}\right) = \frac{Exp(\mathbf{X}\beta_k)}{\left(1 + \sum_{h=1} Exp(\mathbf{X}\beta_h)\right)}$$

Where β_k represents the coefficients of the covariates of $\mathbf{X}$ to be estimated (where k = 1 . . . j)

The explanatory variables included in the model are:

X1 = Age of the respondent (in years)

X2 = Religion of the respondent (Christian = 1, 0 = Muslim)

X3 = Household size (in number)

X4 = Number of years of formal education (in years)

X5 = Number of years of formal education of partner (in years)

X6 = Number of female children 17years or younger in the household (in numbers)

X7 = Number of male children 17years or younger in the household (in numbers)

X8 = Primary occupation in agriculture (Yes = 1, 0 otherwise)

X9 = Social group membership of the respondent (Yes = 1, 0 otherwise)

The Likert scale was used to measure the perception of the respondents regarding the use of contraceptives. It was measured by asking the respondents to rate in qualitative terms their perception using a four point Likert type scale ranging from "very satisfied" (3), "satisfied" (2), "fairly satisfied" (1) to "not satisfied" (0). The mean satisfaction level was obtained by adding the Likert scale points (i.e. 0+1+2+3) to obtain a score of 6 which was divided by four to get a mean score of 1.5. The respondents' mean score was obtained on each index of contraceptive use measured. Any index with a mean score greater than or equal to 1.5 was regarded as satisfactory while one with a mean score less than 1.5 was considered to be unsatisfactory.

2.4. Limitations of the Study

A few challenges were encountered while collecting data for this study including the following:

- Outright refusal of some potential respondents to be interviewed, thereby limiting the sample size.
- Unwillingness of some of the rural women to disclose information regarding contraception which they considered too personal.
- Limited funds, given the fact that the study was entirely self-sponsored.

3. Results and Discussion

3.1. Socio-economic Characteristics of Respondents

Table 1 shows that 96% of the rural women surveyed were 49years of age or below with a mean age of 34 years. This showed that the women farmers in the study area were mostly within their child-bearing years. Also, most of them (90.7%) were married and had some form of formal education (60%).Education can influence rural women's use, as well as choice, of contraceptives and also determine their understanding of the various methods available. On the average, the respondents had 4.6 years of formal education. Households in the study area were modest, with an average of 5 persons per household. Furthermore, farming was the primary occupation of most (83.3%) of the sampled women, while 34% of them practised mixed farming. Most (90.0%) of the respondents did not belong to any social groups which could be a factor in their level of contraceptive adoption as information can be passed across via social groups

Table 1. Socioeconomic characteristics of rural women (n=150)

Socioeconomic Characteristic	Percentage	Socioeconomic Characteristic	Percentage	Socioeconomic Characteristic	Percentage
Age		**Household size**		**Do you belong to any social group**	
20 – 29	29.3	2 – 4	36	Yes	10
30 – 39	46.7	5 – 7	57.3	No	90
40 – 49	20.0	8 – 10	4	**Level of monthly food expenditure**	
50 – 59	4.0	11 – 13	2.7	Less than or equal to N1,000	18
Mean = 34.4, Standard deviation = 7.3		Mean = 5.3, Standard deviation = 1.8		N1,001 – N5,000	39.3
Marital status		**Number of males**		N5,001 – N10,000	18.7
Single	1.3	1 – 3	80.7	Greater than N10,000	24
Married	90.7	4 – 6	14.7	**Level of monthly non-food expenditure**	
Divorced	4.7	7 – 9	3.3	Less than or equal to N1,000	27.3
Widowed	3.3	**Number of females**		N1,001 – N5,000	36.7
Level of Education		1 – 3	79.6	N5,001 – N10,000	19.3
No formal education	40	4 – 6	20.4	Greater than N10,000	16.7
Primary	36.7	Is farming your primary occupation?			
Secondary	23.3	Yes	83.3		
Number of years of formal education		No	16.7		
1 – 4	17.9	**If yes, what type of farming**			
5 – 8	61.5	Crop farming	29.3		
9 – 12	19.2	Livestock farming	28.4		
13 – 16	1.4	Mixed farming	38.0		
Mean = 4.6, Standard deviation = 3.9		Others	4.3		

Source: Authors' computation from survey data

3.2. Awareness and usage of Contraceptives Methods

Table 2 reveals that 27% of the respondents had knowledge of contraceptives while 73% had never heard about them. Of the 41 respondents who were aware of contraceptives, most (68.3%) indicated that abstinence, condoms and withdrawal were the available methods they knew about. The table further revealed that mass media (television, newspapers and radio) were the main source of information about contraceptives for the respondents (60%) while health centres were also an important source of information (24%). Most of the respondents (77.3%) had not used some form of contraception while 22.7% had. Similarly, Oye-Adeniran et al., (2006) showed good knowledge and awareness did not always translate to a high prevalence of use of contraception. The use of condoms (41%) was the most common method among the respondents who employed contraception. This finding is similar to that of Abiodun and Balogun (2009) who also found that the use of condoms was the most commonly employed method of contraception (69%) in Ilorin, Kwara State. Furthermore, the decision on which method of contraception to use was mainly based on the low cost of the method as indicated by 41% of the women interviewed, while partner's decision was the second most important consideration (30%) and 41% of the women had even had to stop the use of contraception at some point due to their partner's perception. Over 75% of the women interviewed who had never used contraception cited traditional or religious beliefs as their reasons for not using any method.

Table 2. Awareness and use of contraceptive methods

	Frequency	Percentage
Have you ever heard of contraceptive methods (n=150)		
Yes	41	27.2
No	109	72.8
Available methods known (n=41)		
Oral, condom, withdrawal	11	26.8
Abstinence, condom, withdrawal	28	68.3
Oral, abstinence, implant	1	2.4
Oral, abstinence, condom	1	2.4
Sources of information about methods (n=41)		
Health centres	10	24
Television	9	21.9
Newspaper	8	18.4
Radio	8	20.1

Friends/Family	6	15.6
Have you ever used any contraceptive method (n=150)		
Yes	34	22.7
No	116	77.3
Methods used (n=34)		
Oral drugs	3	8
Withdrawal	12	36
Uterine implant	2	6.7
Condom	14	41.3
Withdrawal, condom	3	8
Why did you choose the method (n=34)		
It is cheap	14	40.9
Few side effects	7	20.4
Partner's decision	10	29.9
Others	3	8.8
Have you ever had any reason to stop using this method (n=34)		
Method is too expensive	5	14.6
I experienced health problems	13	38.7
Partner didn't like the method	14	40.7
No reason	2	6
Reason for non – usage (n=116)		
Methods have side effects	27	23.3
Tradition/religious beliefs	89	76.7

Source: Authors' computation from survey data

3.3. Determinants of Contraceptive Usage

The results of the multinomial logistic regression model on the determinants of contraceptive usage are presented in Table 3. Respondents that used contraceptives but stopped are the base category. The results revealed that formal education of a respondent was positively and significantly related to the continuous usage of contraception, implying that the more educated the respondents were, the more likely they were to continuously use contraception. This can be connected to their increased awareness of the benefits of contraception due to their education as opined by Gidado (2012). Similar positive relationships between contraceptive usage and educational attainment were found by Kaggwa et al., (2008).

Contrary to common opinion, the results in Table 3 showed that religion is not a significant determinant of contraceptive usage among the rural women. Also, those with more female children, 17 years of age or younger were more likely to never use contraception. This is not surprising given the fact that past studies in Nigeria has shown that women are less likely to use contraceptives during their early reproductive years as depicted in the study by Ebigbola and Ogunjuyigbe (1998) and Oyedokun (2007).

Table 3. Determinants of contraceptive usage

Explanatory variables	Used and never stopped (P-value)	Never used (P-value)	Marginal effects
Age	-0.376 (0.490)	0.0149 (0.814)	0.004
Religion	-0.120 (0.926)	-1.494 (0.361)	-0.068
Household size	0.0953 (0.776)	-0.227 (0.427)	0.008
Formal education	0.337**	-0.184	0.029

	(0.010)	(0.297)	
Formal education of partner	-0.222**	0.081	-0.019
	(0.036)	(0.608)	
Number of female children (≤17years)	0.118	-0.434	0.011
	(0.787)	(0.412)	
Number of male children (≤17years)	0.442788	0.701*	-0.000
	(0.932)	(0.098)	
Primary occupation	-0.002	0.330	-0.002
	(0.999)	(0.772)	
Social group membership	1.550	1.891	0.121
	(0.279)	(0.148)	
Choice of usage	-0.242	16.81	-0.117
	(0.725)	(0.990)	
Constant	-2.275	-18.588	
	(0.381)	(0.988)	
Log likelihood	-67.362		
Pseudo R square	0.233		
L-R chi square	41.46		
Number of observations	150		
Base category	**Used and stopped using**		

Source: Authors' computation from survey data

Note: **means significant at 5% level; *means significant at 10% level; ( ) means standard error

3.4. Perception of the use of Contraceptive Methods

Table 4 shows that the respondents were satisfied with most of the indices of contraceptive usage. The result indicated that the rural women interviewed were only dissatisfied with the level of convenience of the use of contraceptives as well as the side effects some of them experienced. The role of community health workers in creating awareness on birth control received the highest mean score (2.22), indicating that there were marked efforts being made to spread awareness on contraception in the area. Also, the respondents generally agreed that the use of contraceptives was effective in birth control as indicated by its high mean score (2.03). These results imply that, overall, rural women could be said to be positively disposed to contraception.

Table 4. Perception of respondents of the use of contraceptive methods

S/N	Indices of contraceptive use	Mean Score
1.	Level of convenience	1.49
2.	Few side effects	1.35
3.	Birth control efficacy	2.04*
4.	Accessibility to contraceptive methods	1.95*
5.	Providers' attitude	1.91*
6.	Level of confidence in the use of the methods	1.80*
7.	Cost of getting the methods	2.01*
8.	Professional competence of the provider	1.89*
9.	Role of community health workers in creating awareness on birth control	2.22*

Source: Authors' computation from survey data

* Indicates mean scores greater than the Likert scale mean (1.5)

4. Conclusions and Recommendations

This study has revealed that, although the level of contraceptive usage among rural women from farming households in Oyo State, Nigeria is relatively low, the general perception towards it, among those who have used it, is positive and this can be attributed largely to the efforts of community health workers in spreading awareness of the benefits of contraception as well as the cheap sources of contraceptives made accessible to rural women. Also, education of women can significantly increase the likelihood that they will accept contraception. However, more efforts are still needed to change the perception of most rural families on contraception as these still hold on to traditional beliefs and customs which forbid its use. Based on the findings of this study, the following recommendations are made:

More awareness should be created by the governments at the state and local government levels on birth control measures especially through mass media which has been shown in this study to be the most important source of information on contraception. Studies such as Abiodun et al (2009) and Oye-Adeniran et al (2000) have shown that mass media is a good means to disseminate information on contraception in order to create more awareness. This becomes even more important given the fact that, as both studies showed, efforts in this regard in Nigeria have not yet translated into strong prevalence of use of contraception. Rather, there has been a high level of sexual activity corresponding with a low contraceptive prevalence with the average age of sexual debut in many studies ranging between 12 and 20 years, with a mean age of 16 years (Oye – Adeniran et al., 2005, Okpani et al., 2000).

More modern methods of contraception with fewer side effects such as subcutaneous implants can be introduced to rural women so as to reduce or eliminate biases against contraceptive use which are based on the side effects of other methods. Umoh and Abah (2011) similarly revealed that fear of side effects and previous side effects experienced were among the major factors that caused unwillingness to use contraception among in South-south Nigeria.

Family planning interventions in Nigeria should also be made context-specific and culturally appealing so as to increase their acceptability among rural communities. As Etokidem et al (2017) showed, cultural factors play a major role in the decision of households to use (or not) contraceptives. Therefore, birth control education can be incorporated into farming programed/schemes targeted at rural farming communities in order to increase their appeal so as to ensure greater uptake of family planning.

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