Perception, Prevalence and Predictors of Contraceptives use Among Women in Rural Communities of Nigeria's Federal Capital Territory

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Abstract

Background: The use of contraception allows for child-spacing and delay of pregnancies in young women. Despite widespread availability, poor contraceptives usage among women continues to pose significant socioeconomic challenge globally. This study aimed to assess the perception, prevalence and predictors of contraceptives use among women in rural communities of Nigeria's Federal Capital Territory.

Methodology: Community-based cross-sectional design and multi-stage sampling method were used to select 400 women of child-bearing age in two rural communities. Standardized, semi-structured questionnaire was used for data collection. Data analysis was done using Statistical Package for Social Sciences version 22.0 and level of statistical significance was determined by p-value of ≤0.05.

Results: The mean age of women was 30.1±7.7 years and majority were married; 307 (76.8%). A good number 167 (41.2%) perceived contraceptives use as important, while lower proportion 180 (45.0%) used contraceptives. Major reasons for non-use of contraceptives were disapproval from husbands/religion and fear from previous experiences 60 (27.3%) respectively. Factors associated with contraceptives use were age of less than 30 years (AOR; 0.53, 95% CI = 0.28-0.98) p = 0.041, being married (AOR; 1.79, CI = 1.09-2.94), p = 0.021, not having children (AOR; 4.48, CI = 1.51-13.30), p = 0.007, and good perception of contraceptives use (AOR; 1.82, CI = 1.10-3.03), p = 0.020. p = 0.041.

Conclusion: Contraceptives use was associated with age, marital status, parity and perception of contraceptives. Major reasons for non-use of contraceptives were spousal/religious disapproval and fear of side effects. Sustained community engagement and male involvement in contraceptive services are needed to overcome perceived barriers to contraceptives use.

Keywords: Perception; Prevalence; Predictors; Contraceptives Use; Women; Rural Communities; Nigeria's Federal Capital Territory

Introduction

The use of contraception allows for spacing of pregnancies, and can delay pregnancies in young women who are at increased risk of health problems and death from early childbearing. Contraceptives enable women who wish to limit the size of their families to do so. Evidence has shown that women who have more than 4 children are at increased risk of maternal mortality and infant mortality rate is 45% higher when births are separated less than 2 years [1]. Furthermore, despite widespread availability and awareness about contraceptive services, poor contraceptives use among women globally continues to pose significant socioeconomic challenge for individuals and society [2].

The health benefits of contraceptives use are substantial. They prevent unintended pregnancies, reduce the number of abor-

tions, and lower the incidence of deaths and disabilities related to complications of pregnancy and childbirth. The long-term benefits range from increased education for women and better child health, to greater family savings and stronger national economies.[3] Increased contraceptive use and reduced unmet need for contraception are central to achieving the third objective of the United Nations Sustainable Development Goals-Ensure healthy lives and promote wellbeing for all at all ages-and contribute directly or indirectly to achieving many of the other goals [3,4].

Globally, use of modern contraception has risen slightly, from 54% in 1990 to 57.4% in 2015. In Africa, the proportion of women aged 15-49 years reporting use of a modern contraceptive method increased from 23.6% to 28.5% within the period.[1] In 2012, it was estimated that contraceptives use will prevent 218 million unin-

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tended pregnancies in developing countries, and, in turn, will avert 55 million unplanned births, 138 million abortions (of which 40 million are unsafe), 25 million miscarriages and 118,000 maternal deaths.[5] Short birth intervals of less than 15 months are associated with adverse pregnancy outcomes, including induced abortions, miscarriage, preterm births, neonatal and child mortalities, still births and maternal depletion syndrome [5,6].

Studies have shown that the need for contraceptives varies during a woman's reproductive years, but demand is highest during the postpartum period [7-9]. Common reasons for non-use of contraceptives include concerns about health and side-effects, low risk perception of getting pregnant, opposition from partners or others, having inadequate knowledge about the methods, religious beliefs, and having problems getting supplies [10-14].

This study aimed to determine the perception, prevalence and predictors of contraceptives use among women in rural communities of Nigeria's Federal Capital Territory.

Subjects and Methods

The study was carried out at rural communities in Nigeria's Federal Capital Territory (FCT), Abuja. The FCT is located at the centre of Nigeria and has a land area of about 8,000 square meters. The Nigeria's 2006 census put the population of FCT at about two million, consisting of the indigenous people, other Nigerians and foreigners with the population of women of child-bearing age estimated to be 370,683 (26.7%) [15]. However, 2022 projected population of FCT stands at about 5,829,903 people, based on annual growth rate of 9.3% [16].

FCT is divided into six administrative area councils with over 60% of the populace living in the rural areas [17]. This study was conducted at rural Kuchinbuyi and Chikakore communities in Bwari Area Council which are located about 40-45 kilometres north east of Abuja city respectively and predominantly inhabited by the Gbagyi ethnic group, with a considerable population of farmers and other inhabitants who are involved in ceramic production and trading.

- **Study design and study population:** This was a community-based cross-sectional study involving women of child-bearing age (15-49 years) who were permanent residents of the communities (residence for at least one year). Those who declined consent were excluded.

- **Sample size determination:** The minimum sample size for the study was determined by the formula for single proportions [18]. A sample size of 400 women was used based on a type 1 error (α) of 0.05, a tolerable error margin of 0.05, and the contraceptive use of 41.3% among women in a past study [19].

- **Sampling technique:** A multi-stage sampling technique (involving four stages) was used to select the respondents.

In the first stage, simple random sampling technique of balloting was used to select Bwari Area Council out of the six councils in FCT. In the second stage, simple random sampling technique of balloting was used to select Byazin ward from the four political wards located in rural area of the council. In the third stage, a simple random sampling of balloting was used to select two communities (Kuchibuyi and Chikakore) using the list of 12 communities in the ward as sampling frame. In the fourth stage, a systematic random-sampling technique was used to select house-holds in the communities. House-hold numbering of each community was done, and this served as the sampling frame. A total of 200 respondents were proportionately allocated to each community. The sampling interval was determined by dividing the sampling frame by the sample size of 200, and this determined the sequence of house-holds selection based on the numbering. The index house-hold was selected using a simple random-sampling technique of balloting. Eligible women in the selected households were included for the study.

- **Study instrument:** Data was collected using standardized, pre-tested, semi-structured questionnaire developed and validated by the researchers. The questionnaire was formulated in English and translated into the two widely spoken (local) languages of the study communities (Gbagyi and Hausa). The questionnaire contained information on respondent's bio-data and the outcome measures, and research assistants with effective communication skills the local languages were recruited and trained to administer the questionnaire.

- **Statistical analyses:** Data entry and analyses were done using IBM Statistical Package for Social Sciences (SPSS) version 22.0. Bivariate analysis (Chi-square test) and binary logistic regression were applied and level of statistical significance was determined by p-value of <0.05. The main outcome measures were perception and use of contraceptive methods. Perception of contraceptive use was assessed as "very important", "important" and "not important", while use of contraceptives was assessed by noting those who answered "yes" to the question of "currently using any form of contraceptives?". In determining the predictors of contraceptives use, variables that had p-values of ≤0.2 on bivariate analysis were entered into logistic regression model and the result was reported using Adjusted Odds Ratios (AOR) and 95% Confidential Intervals (CI).

- **Ethical considerations:** Ethical approval was obtained from the Health Research and Ethics Committee of FCT Health Authority. Written informed consent was obtained from the respondents before the interviews, and the nature of the study, its relevance, and the level of their participation were made known to them. Respondents were assured that their participation in the study was voluntary and about the confidentiality of their information.

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Results

Variables	Frequency (n = 400)	Percent
Mean Age (yrs.)	30.1 ± 7.7	
Age groups (years)		
< 30	202	50.5
30-39	136	34.0
≥ 40	62	15.5
Marital Status		
Married	307	76.8
Single*	93	23.3
Religion		
Christianity	222	55.5
Islam	178	44.5
Tribe		
Gbagyi	191	47.8
Hausa/Fulani	83	20.8
Others**	126	31.5
Number of living children		
None	23	5.8
1 – 3	228	57.0
≥ 4	149	37.3
Educational level		
Primary and below	251	62.8
Secondary and above	149	37.3
Employment status		
Unemployed/Housewife	98	24.5
Self employed	259	64.8
Salaried employment	43	10.8

Table 1: Socio-demographic characteristics of women in the study area.

*Never married, separated, or divorced.

**Other tribes of Nigeria.

The mean age of women was 30.1 ± 7.7 years and higher proportion of them (50.5%) were aged less than 30 years. Also, higher proportions were married (76.8%), Christians (55.5%) and had 1-3 living children (57.0%). Majority had primary education and below (62.8%) and were self-employed (64.8%). table 1.

Variables	Frequency n = 400	Percent
Perception of contraceptives use		
Very important	108	27.0
Important	165	41.2
Not important	127	31.8
Satisfaction with contraceptive services at health facilities		
Very satisfied	56	14.0
Satisfied	167	41.8
Dissatisfied	109	27.2
Very Dissatisfied	68	17.0

Table 2: Perception and satisfaction with use of contraceptives among women in the study area.

Higher proportion of women (41.2%) perceived contraceptives use as important and (41.8%) satisfied with contraceptive services they received at health facilities. table 2.

Variables	Frequency	Percent
Currently using any contraceptive	n = 400	
Yes	180	45.0
No	220	55.0
Types of contraceptives being used	n = 180	
Injectable	90	17.8
Condoms/OCPs	32	50.0
Natural Method/Ex Breastfeeding	28	15.6
IUCD	22	12.2
Implants/Tubal Ligation	8	4.4
Places where contraceptives services were received	n = 180	
Public Health Centre	103	57.2
Private Hospital	31	17.2
TBA	30	16.7
Others*	16	8.9
Reason for not using contraceptives	n = 220	
Husband/Religion did not approve it	60	27.3
Afraid/Previous experience	60	27.3
No Reason	46	20.9
Not aware of it/Don't believe in it	23	10.5
High Cost	16	7.3
Others**	15	6.8
Had bad experience(s) with use of contraceptives	n = 400	
Yes	85	21.3
No	315	78.8
Kinds of experience with use of contraceptives	n = 85	
Non-menstrual bleedings	19	22.4
Stoppage of menses/unexpected pregnancy	11	12.9
Abdominal pains/Heavy menses	23	27.1
Fever/Weight gain	21	24.7
Unusual discharge/painful intercourse	11	12.9

Table 3: Use of contraceptives among women in the study area.

*Chemist shops, religious homes.

**Pregnancy, yet to complete desired family size.

A lower proportion of women (45.0%) used contraceptives at the time of the survey, but higher proportion used injectable methods (50.0%). Majority received contraceptive services at community health centre (57.2%), followed by those who received the services at private hospitals (17.2%).

The major reason for non-use of contraceptives were disapproval from husbands/religion and fear from previous experiences (37.3%). A lower proportion of bad experiences with past contraceptives use (21.3%), and the major past complications they experienced were abdominal pains/heavy menses (27.1%). table 3.

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Variables	Use of contraceptives (n = 400)		Pᵃ	AORᵇ (95% CI)ᶜ	pᵈ
	Yes (180) N (%)	No (220) N (%)			
Age groups (yrs.)					
< 30	93 (46.0)	109 (54.0)		0.53 (0.28-0.98)	0.041
30-39	67 (49.3)	69 (50.7)	0.076	0.55 (0.29-1.05)	0.070
≥ 40	20 (32.3)	42 (67.7)		1	
Marital Status					
Married	129 (42.0)	178 (58.0)	0.029	1.79 (1.09-2.94)	0.021
Single	51 (54.8)	42 (45.2)		1	
Number of Living Children					
None	5 (21.7)	18 (78.3)		4.48 (1.51-13.30)	0.007
1-3	97 (42.5)	131 (57.5)	0.012	1.51 (0.97-2.36)	0.070
≥ 4	78 (52.3)	71 (47.7)		1	
Religion					
Christianity	109 (49.1)	113 (50.9)	0.066	0.49 (0.30-0.82)	0.006
Islam	71 (39.9)	107 (60.1)		1	
Educational Level					
Primary and below	109 (43.4)	142 (56.6)	0.412	N/Aᵉ	
Secondary and above	71 (47.7)	78 (52.3)			
Occupation					
Unemployed/ Housewives	43 (43.9)	55 (56.1)			
Self employed	119 (45.9)	140 (54.1)	0.854	N/A	
Salaried employment	18 (41.9)	25 (58.1)			
Perception of contraceptives use					
Very important	57 (52.8)	51 (47.2)		0.65 (0.34-1.24)	0.194
Important	57 (34.5)	108 (65.5)	0.002	1.82 (1.10-3.03)	0.020
Not important	66 (52.0)	61 (48.0)		1	

Table 4: Factors associated with use of contraceptives among women in the study community.

ᵃP-value in bivariate analysis

ᵇAOR=Adjusted Odds Ratio

Women aged less than 30 years were twice less likely to use contraceptives than those aged 40 years and above, (AOR; 0.53, 95% CI = 0.28-0.98), p = 0.041. Similarly, Christians were twice less likely to use contraceptives than Muslims (AOR; 0.49, 95% CI = 0.30-0.82), p = 0.006. On the other hand, married women were twice more likely to use contraceptives than single women, (AOR; 1.79, 95% CI = 1.09-2.94), p = 0.021. Furthermore, women who did not have children were 4 times more likely to use contraceptives than those who had 4 children and above, (AOR; 4.48, 95% CI = 1.51-13.30), p = 0.007. Also, women who perceived contraceptives use as important were twice more likely to use contraceptives than those who perceived its use as not important, (AOR; 1.82, 95% CI = 1.10-3.03), p = 0.020. table 4.

Discussion

Contraceptives have been found to reduce maternal mortality rate by at least 25%, which account for its promotion as best intervention in sub-Saharan Africa, including Nigeria, where high maternal mortalities are recorded [20,21]. In rural communities of Africa, large numbers of children are seen as investment in labour force for exploitation in farming. However, with increase in education and access to contraceptive services, coupled with rapid urbanization and economic hardship, total fertility rates have begun to decline in African communities [22].

In view of the prevalent socio-cultural beliefs and practices in rural communities, it is quite commendable that over two-third of respondents had good perception for contraceptives use. Sustained community engagement and health education is needed to change inherent perceptions against use of contraceptives in rural settings. Traditional and religious beliefs were major considerations for use of contraceptives among women in farming communities of Oyo state, Nigeria [23]. Related African studies also revealed that socio-cultural issues were associated with use of contraceptives [24-26]. Family planning interventions should therefore be made context-specific and culturally appealing to increase their acceptability in rural communities.

Client satisfaction is an important factor that determine success and utilization of a healthcare facility. The fact that only half of respondents expressed satisfaction with quality of contraceptive services underscores the need for improvement in quality of services at health facilities. Two Nigerian studies had demonstrated positive correlation between patients' satisfaction and quality of health care services [27,28].

The recorded contraceptive prevalence rate (CPR) of 45% in this study is higher than the average figure of 23% in FCT and national average of 17% recorded in Nigeria national demographic and health survey [21]. The CPR is also higher than the figure in Bayelsa state, but lower than that found in Kebbi state and rural south west Nigeria [25,29]. The high CPR may be the result of high

condom use among the respondents, but could well be associated with high literacy level as reported in previous studies [24,25,27]. Studies from Kebbi and Bayelsa states of Nigeria recorded 55% use of injectable contraceptives and 40% condom use respectively [25,29].

Over half of respondents accessed contraceptive services at public health centres which are mostly located in rural areas and known to provide free family planning services. There is therefore the need to strengthen public facilities to provide quality contraceptive services to inhabitants of rural communities. The substantial patronage of traditional birth attendants among the respondents (16.7%) further underscores the imperative to strengthen public health facilities to mitigate possible misapplication of contraceptives.

The major reasons for non-use of contraceptives included spousal/religious disapproval, abdominal pain/heavy menses, and cost of services. These are similar to findings from studies across Nigeria and other African countries [19,23-27]. Male engagement and involvement on issues pertaining to family is needed to overcome the recorded cultural and gender barriers.

Contraceptives use was associated with age group of 20-29 and having 1-2 children which coincides with the peak age and period of reproductive cycle when sexual and child-spacing needs are paramount. Furthermore, the apparent taboo against contraceptives use among single women in African traditional societies may account for the higher likelihood of contraceptives use recorded among married women in the study community. Engaging in sexual activities without using contraceptives could result in unplanned pregnancy and sexually transmitted infection. Effective health education and confidence building are needed to overcome inherent socio-cultural barriers to contraceptives use and motivate women in rural communities to accept their benefits.

Conclusion

This study recorded high contraceptives prevalence rate, much higher than Nigeria's national and FCT averages. Reasons for non-use of contraceptives were spousal/religious disapproval, fear of side effects, and cost. Contraceptives use was associated with age, marital status and parity. Sustained community engagement and male involvement in family planning services is needed to overcome perceived barriers to contraceptives use.

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