Pattern And Predictors Of Uptake Of Contraception Among Women In Olufadi Community, Ilorin South Local Government Area, Kwara State, Nigeria

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Abstract

Background: Nigeria is the most populous African country in the world with a population of about 160 million and an annual growth rate of 3.2%. Nigeria is already facing population explosion with the birth rates being higher than the global averages. Worse still, the low contraceptive prevalence rate and 15% unmet needs of contraception is quite worrisome.

Aims and Objectives: The study aimed to determine the prevalence, pattern and predictors of uptake of contraception among women in Olufadi Community, Ilorin South Local Government Area, Kwara State Nigeria.

Methods: This was a descriptive cross-sectional study. Respondents were selected through Systematic sampling of households. Interviewer- administered pre-tested questionnaire was used to collect data. Data was analyzed using SPSS version 15.

Results: The common forms of contraceptive method utilized among the respondents were pills and Intra-uterine Contraceptive Device (IUCD) which constituted 38(19.0%) each. The least utilized methods among the women were male condom, 1(0.5%) and Bilateral Tubal Ligation, 1(0.5%). None of them reported utilizing the female condom.

Duration of marriage was found to have association with the uptake of contraception as respondents with younger marriages utilize contraception more than those with older marriages (OR=2.55, 95% CI= 1.06-6.29, $p<0.05$). However, having formal education and age at marriage among others were found to be significant predictors of uptake of contraception. In addition, of these significant predictors and indeed of all the listed predictor variables, duration of marriage also had the highest regression coefficient ($\beta=0.513$, $p=0.000$).

Conclusion: The cumulative contraceptive prevalence rate (CPR) obtained in this study showed that less than half of the women are using contraception in this community. These findings underscore the need for urgent community mobilization to increase the uptake of contraception.

Key words: *Uptake, Contraception, Nigeria*

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Introduction

Nigeria is the most populous country in Africa with a population of about 160 million and an annual growth rate of 3.2% [1-3]. The annual growth rate of Nigeria's population is higher than the average of 2.8% obtained in other sub-Saharan African countries [4]. With this growth rate, the doubling time for Nigeria's population has been estimated as 22 years.[2] The birth rate in Nigeria is equally higher than the global averages [3, 5, 6]. The total fertility rate (TFR) of 5.7 obtained in Nigeria suggests that an average Nigerian woman is fecund and fertile to give birth to an average of six children in her life time with a high maternal mortality ratio [7].

Maternal deaths are largely avoidable. There are three pathways that can help reduce maternal deaths: planning pregnancy, preventing complications of pregnancy and child birth and preventing death from complications. These pathways rely on a well functioning health system that provides family planning, antenatal care, safe delivery services and postnatal care to all women [8].

Worldwide, about 13% of maternal deaths are due to abortions [9]. It was also documented that family planning services and supplies currently prevent 187 million unintended pregnancies each year including 60 million unplanned births and 105 million abortions [10]. Despite the high maternal mortality ratio in Nigeria, the contraceptive prevalence rate among married women in Nigeria is about 10% which is lower than the average of 17% obtained in other sub-Saharan African countries. Worse still, the 15% unmet needs of contraception in Nigeria is equally worrisome [6, 7].

The use of contraception to delay or stop child bearing allows women to give birth at healthiest times for themselves and their children, thereby lowering maternal and child deaths and disabilities. Therefore investing in family planning is cost effective for government because the supplies and services are relatively inexpensive to all. The benefit extend far beyond family health including reduction of unwanted birth, lowering of national costs for health care and education with decreased pressure on limited natural resources.[11]

Awareness and knowledge of contraception in Nigeria despite high, there is low usage of contraceptives measures as shown by some studies [12-14]. Barrier method, especially use of condom, was found to be the most used contraceptive method in Nigeria and other areas in the world [7, 11, 14, 15]. In another study it was found that pills were the commonest form of contraceptive method used [16]. Of all the methods, however, the female condom is the least utilized in Nigeria. In Nigeria, 35% of unmarried women use the male condom in contrast to the 0.2% who use the female condom [6].

Health seeking behaviour of Nigerians is actually known to be poor [17]. Factors that serves as barriers to use of contraceptives have been seen to include lack of access, socio-cultural and religious factors, partner's opposition and fear of side effects of contraceptives, low literacy level, poor level of training and ineffective conveyance of relevant information to clients by health personnel, lack of knowledge amongst others [3,16,18,19]. This study aims to determine the cumulative contraceptive prevalence rate (CPR), pattern and predictors of uptake of contraception among the women in Olufadi community.

Materials and Methods

Olufadi, the study site, is an urban community located in Oke-Ogun ward of Ilorin South Local Government Area of Kwara State in North Central Nigeria. Certain socio-cultural practices

that are widely practiced among the people of this community include early marriage, polygamy and associated multiple sexual partners. Grand-multiparity with poor child spacing is also a common practice. Housing in this community is overcrowded with concomitant poor sanitation and filthy environment, a reflection of the low socio-economic status of the people.

The design of this study is descriptive cross sectional in nature to determine the cumulative Contraceptive Prevalence Rate (CPR), pattern and predictors of uptake of contraception among women in Olufadi community. The respondents were selected through systematic sampling of households. A sampling frame of the households in the community was prepared through household numbering/enumeration. This revealed a total of 1,112 houses and 1,543 households in the community out of which 200 households were visited.

The households visited were selected through systematic random sampling with a sampling interval of seven. The index household was selected from the first seven households using simple random sampling by balloting. The 4th household was picked by balloting as the index household. Subsequent households were selected systematically using the sampling interval of seven. For households with more than one eligible respondent, simple random sampling by balloting was used to select the respondent.[75] For households where eligible respondents were not willing to participate or where there were no eligible respondent, the next household was visited to recruit subject while maintaining the sampling interval. The research instrument was a pretested semi-structured questionnaire and the pre-test was done in Okelele community, another community located in Ilorin east LGA with a view to validating the research tool and make appropriate corrections. Trained research assistants on data collection using interviewer administered questionnaire were used. Data collation and editing was done manually to detect omission and ensure uniform coding. The analysis was done using SPSS version 15. Written informed consent was obtained from all the respondents.

The minimum sample size was determined using the Fisher's formula ($n=Z^2pq/d^2$) for obtaining sample size when the population is more than 10,000. A total of 200 women participated in the study. The households visited were selected through systematic sampling with a sampling interval of seven. For households with more than one eligible respondent, simple random sampling by balloting was used to select one respondent. For households where eligible respondents were not willing to participate or where there were no eligible respondent, the next household in the sampling frame was visited to recruit subject while maintaining the sampling interval.

Odds ratio was used to identify/measure association between uptake (ever use) of contraception (dependent/response variable) and socio-demographic and reproductive characteristics of the respondents (independent/ explanatory variables). Pearson's Chi square was used to test association in the cross tabulated variables, while multiple/binary logistic regression analysis was done to identify the predictors of uptake of contraception among the respondents. Level of statistical significance was predetermined at a p-value of < 0.05. Ethical approval for the study was obtained from the research and ethical committee of the University of Ilorin Teaching Hospital.

Operational Definition- For the purpose of this study, "ever use" of contraception or family planning methods, will refer to use of a method at anytime, with no distinction between past and

current use.[20]

Results

As shown in Table 1, the respondents' ages ranged from 25-64 years with a mean of approximately 44±12.50 years. While more than three-quarters, 197(98.5%), of the respondents had ever been married, about one-third, 62(31.0%), of them are in polygamous marriage. Majority, 154(77.0%), of them were educated and more than three-quarters, 185(72.5%) attained coitarche after the age of 17 years and above. While about one-third, 62(31.0%) were grand-multiparous, only 9(4.5%) reported having two sexual partners.

Less than half, 86(43.0%), of the respondents had ever used contraception. On the types of contraception, pills and IUCD were the most commonly utilized among the respondents as shown in Table 2. Male condom and bilateral tubal ligation were the two least utilized forms of contraception among the women.

Table 3 showed that respondents that had ever been married utilized contraception more that the unmarried ones. While about half, 85(43.1%), of the ever married respondents are using contraception, only a third, 1(33.3%), of the unmarried ones are using contraception. However, the above difference is not statistically significant(OR=1.52, 95%CI=0.11-43.02, p value=1.000) Also, in Table 3, duration of marriage was found to have association with uptake of contraception as respondents with younger marriages utilize contraception more than those with older marriages. The observed difference was statistically significant (OR=2.55, 95% CI= 1.06-6.29, p=0.035).

However, in Table 4, having formal education, age at marriage, coitarche, duration of marriage, and history of sexually transmitted infections were found to be significant predictors of uptake of contraception. In addition, of these significant predictors and indeed of all the listed predictor variables, duration of marriage also had the highest regression coefficient (β=0.513, p=0.000).

Table 1: *Socio-economic characteristics of respondents*

Age group (Years)	**Frequency (%) n= 200**
25- 34	56(28.0)
35-44	49(24.5)
45-54	40(20.0)
55-64	55(27.5)
Marital Status	
Married	180(90.0)
Single	3(1.5)
Widow	17(8.5)
Religion	
Islam	179(89.5)
Christianity	21(10.5)
Tribe	
Yoruba	188(94.0)
Hausa	1(0.5)
Igbo	2(1.0)
Others	9(4.5)
Level of Education	
No formal education	46(23.0)
Primary	24(12.0)
Secondary	18(9.0)
Tertiary	112(56.0)
Occupation	
Trading	90(45.0)
Civil servant	89(44.5)
Housewife	12(6.0)
Unemployed	7(3.5)
Retired	2(1.0)
Age at marriage(yrs)	
<17	12(6.0)
⩾17	185(92.5)
Coitarche(yrs)	
<17	15(7.5)
⩾17	185(72.5)
Menarche(yrs)	
⩽10	2(1.0)
>10	198(99.0)
Duration of marriage(yrs)	
<40	162(81.0)
⩾40	35(17.5)
Parity	
<5	138(69.0)
⩾5	62(31.0)
No of sexual partners	
1	191(95.5)
2	9(4.5)

Table 2: *Pattern of uptake of contraceptives among the respondents*

Variable	Frequency (%)
Use of contraceptives	
Ever use	86(43.0)
Never use	114(57.0)
Duration of use (yrs)	
⩽5	84(42.0)
>5	2(1.0)
Types of contraception	
Condom	1(0.5)
Pill	38(19.0)
Injectables	15(7.5)
IUCD	38(19.0)
BTL*	1(0.5)

**Bilateral Tubal Ligation*

Table 3: *Socio-demographic and reproductive health profile by use of contraception*

Age (yrs)	Ever use contraception		χ^2	OR	95%CI	φ	p value
	Yes (%)	No (%)					
25-44	43(41.0)	62(59.0)					
45-64	43(45.3)	52(54.7)	0.22	0.84	0.46-1.53	0.03	0.636
Marital status							
Ever married	85(43.1)	112(56.9)					
Not married	1(33.3)	2(66.7)	0.06	1.52	0.11-43.02	0.02	1.000 Fisher's
Type of marriage							
Monogamous	59(43.7)	76(56.3)					
Polygamous	26(41.9)	36(58.1)	0.01	1.07	0.56-2.07	0.01	0.938
Religion							
Islam	74(41.3)	105(58.7)					
Christianity	12(57.1)	9(42.9)	1.32	0.53	0.19-1.43	0.08	0.249
Educational status							
Formal education	72(46.8)	82(53.2)					
No formal education	14(30.4)	32(69.6)	3.21	2.01	0.94-4.31	0.13	0.073
Age at marriage(yrs)							
<17	3(25.0)	9(75.0)					
⩾17	82(44.3)	103(55.7)	1.02	0.42	0.09-1.76	0.07	0.313
Coitarche(yrs)							
<17	5(33.3)	10(66.7)					
⩾17	81(43.8)	104(56.2)	0.27	0.64	0.18-2.15	0.04	0.606
Menarche(yrs)							
⩽10	0(0.0)	2(100.0)					
>10	86(43.4)	112(56.6)	0.27	0.00	0.00-5.42	0.04	0.507 Fisher's
Marriage duration(yrs)							
<40	76(46.9)	86(53.1)					
⩾40	9(25.7)	26(74.3)	4.44	2.55	1.06-6.29	0.15	0.035
Parity							
<5	53(38.4)	85(61.6)					
⩾5	33(53.2)	29(46.8)	3.25	0.55	0.29-1.05	0.13	0.07
No of sexual partners							
1	80(41.9)	111(58.1)					
2	6(58.3)	3(41.7)	1.26	0.36	0.07-1.69	0.08	0.177 Fisher's

OR=Odds Ratio; φ= Phi coefficient

Table 4: *Predictors of uptake of contraception among the respondents*

Variable	Regression coefficients, β	p value
Age	0.286	0.071
Marital status	0.004	0.743
Type of marriage	0.045	0.441
Religion	0.013	0.169
Formal education	0.026	0.048*
Age at marriage	0.209	0.022*
Coitarche	0.242	0.005*
Menarche	0.073	0.267
Duration of marriage	0.513	0.000*
Parity	0.105	0.096
Number of sexual partners	0.022	0.198
History of STI	0.073	0.004*

***significant predictors**

Discussion

In our study, the respondents were women in the reproductive age group, and almost 99% of them had ever been married. This was similar to what was obtained in a similar study by Olugbenga-Bello et al where 86.3% of the respondents were ever married, and also similar to another study by Moronkola *et al* who identified 90.2% of the respondents as being married [3,19]. This might be due to the Yoruba culture, which applauds the institution of marriage and does not particularly encourage single parenting.

Less than half of the respondents in our study had ever used any form of contraceptives with a cumulative contraceptive prevalence rate of 43%. This was less than the figures obtained by Olugbenga-Bello *et al* where 66.3% of the respondents were currently on modern contraceptives [3]. A similar study in the eastern part of the country found an 'ever used' rate of 52.6% and an awareness rate of over 90% [21]. From this study however, the percentage of respondents who had ever used any form of contraceptive method was greater than what was obtained in the Northern part of Nigeria where only 4.3% of women in the study communities had ever used any form of contraceptive. Current usage was even lower as only 3.1% of women reported current use of either traditional or modern methods [22]. This may be due to the level of education among the respondents, as the level of education of the Northern study was the lowest.

Even though a good majority of the respondents in our study were educated, (77%), a much lower

percentage (56%) had up to tertiary education, yet this study identified 43% of the respondents as ever having used a form of contraception. A Pakistani study with a 35.5% of the respondents being educated, and 11.5% being educated up to college level, had a utilization rate for contraceptives of 29% [23]. Another study by Avideme *et al* had only 27.1% of their respondents with formal education, and current usage of contraceptives was 3.1% [21]. The study however opined that women who managed to attain a higher level of education exhibited greater awareness and utilization of contraceptive methods. These studies tend to have a similar trend- the better the level of education of the respondents, the better their utilization of contraception. From this study, having formal education was also found to be a significant predictor of uptake of contraception with a significant regression coefficient (β = 0.026, p-value = 0.048). Though, educational exposure does not always transform to better health education, it is nonetheless a recipe for exposure to health information and behavioural change.

Duration of marriage was also found to have association with and also predictive of uptake of contraception. This is so because the younger women are still pre-menopausal and procreating/sexually active. There is therefore the need for birth spacing and prevention of unwanted pregnancies. However, this is unlike the older women who probably are post-menopausal and have completed their family

Commonly utilized contraceptives as found in this study were the pills (oral contraceptives) and the intra uterine devices, with the male condom and bilateral tubal ligation taking the back stage as the least utilized methods. A similar study also opined from its findings, that the most utilized contraceptive method was the pills [16]. This may be due to the fact that most women do not want their husbands to know they are on contraception and the use of the pills may not be obvious to the spouse. This was however at variance with some studies which identified the barrier methods, particularly the male condom, as the most utilized method [7, 14, 15]. The results from a Pakistani study identified the most utilized contraceptive methods as tubal ligation-9.5% followed by condom use [23]. This study however had a low level of uptake of contraception and with about a quarter of respondents having no formal education.

References

1. Consulate General of Nigeria Hong Kong. Country Profile-Population and Labour force. www.nigeria-consulate.org.hk Published 2006. Accessed January 28, 2013
2. The Population Commission of Nigeria. Report of the Final 2006 Census Result. www.population.gov.ng. Published 2007. Accessed September 13, 2013
3. Olugbenga- Bello AI, abodunrin OL , Adewumi AA Contraceptive Practices among women in rural communities in South Western Nigeria. Global Journal of Medical Research 2011; 11(2): 1-8
4. Okech CT, Wamire NW, Mburu TK. Contraceptive use Among Women of Reproductive Age in Kenya's city Slums. Int J Bus Soc Sci.2011;2(1):22-43
5. Khurfeld, M. Thousands feared born in Nigeria's population explosion. The Onion 2006. www.theonion.com Published 2006. Accessed December 20, 2013
6. Nigerian Demographic and Health Survey (NDHS, 2008). www.measuredhs.com. Published 2008. Accessed September13, 2013
7. Nwanchukwu I, Obasi OO. Use of modern birth control methods among rural communities in Imo state, Nigeria. AJRH 2008; 12(1): 101-108
8. Roudi-fahimi F, Ashford L. Sexual and

reproductive health in the middle East and North Africa. A Guide for reporters. www.prb.org/reports/2008/media guide.aspx Published 2008 Accessed January 28, 2014

9. PRDOH Anderson Same postgraduate training in Reproductive Health Research. Faculty of medicine, University of Yaounde 2007. www.gfmer.ch/.../RH-developing-countries-Doh..Yaounde.
10. Sonfield A. Working to eliminate the world's unmet needs for contraception Gottmacher Institute 2006; 9 (1): 10-13.
11. Umoh AV, Abah MG. Contraception awareness and practice among antenatal attendees in Uyo. Nigeria. The Pan African Medical Journal 2011; 10:53.
12. Oye-Adeniran BA, Adewole IF, Umoh AV, Oladokun A, Gbadegesin A, Ekanem EE. *et al* .Community based study of contraceptive behaviour in Nigeria. Afr J Reprod Health 2006; 10 (2): 90-104.
13. Oye-Adeniran BA, Adewole IF, Odeyemi KA, Ekanem EE, Umoh AV. Contraceptive prevalence among young women in Nigeria. J Obstet Gynaecol.2005; 25 (2): 182-185.
14. Olamijulo JA, Olorunfemi G. Knowledge and Practice of Contraception among pregnant women attending the Antenatal Clinic in Lagos University Teaching Hospital. Nigerian Journal of Medicine. 2012; 21 (4): 387-393.
15. Khan A, Hashim HA, Naqui Z. Awareness and practice of contraception among child bearing Age women. Journal of surgery Pakistan 2011; 16 (4): 179-182.
16. Omo-Aghoja LO, Omo-Aghoja VW, Aghoja CO, Okonofua FE, Aghedo O, Umueri C *et al.* Factors Associated with the knowledge, Practice and Perception of contraception in rural southern Nigeria. Ghana Med J. 2009; 43(3): 115-121.
17. Igberase G. Harmful Cultural Practices and Reproductive Health in Nigeria. Continental J. Tropical Medicine 2012; 6(1): 27-33
18. Carr D, Khan M. The unfinished Agenda: Meeting the needs for family planning in less developed countries Washington CD. Population Reference Bureau. www.popline.org/node Published 2004. Accessed January 29, 2014
19. Moronkola OA, Ojediran M.M Amosun A. Reproductive Health Knowledge, behalf and determinants of contraceptives use among women attending family planning clinics in Ibadan Nigeria. Africa Health Sciences 2006; 6(3): 155-159
20. National Population Commission (NPC) [Nigeria] and ICF Macro. 2009. Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro.
21. Umoh AV, Abah MG. Contraceptive awareness and practice among antenatal attendees in Uyo, Nigeria. PAMJ 2011; 10:53-57
22. Avidime S, Aku-Akai L, Mohammed AZ, Adaji S, Shittu O, Ejembi C. Fertility intentions, contraceptive awareness and contraceptive use among women in three communities in northern Nigeria. AJRH 2010; 14(3):65-70
23. Bibi S, Memon A, Memon Z, Bibi M. Contraceptive knowledge and practices in two districts of Sindh, Pakistan: a hospital-based study. J Pak Med Assoc.2008; 58(5):254-258

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