

Original Research Article

Uptake of long-acting reversible contraceptives in north central Nigeria: a five-year review

Caroline H. Jumbo, Rafat B. Muhammad, Nathaniel D. Adewole*, Dennis A. Isah, Richard A. Offiong, Habiba I. Abdullahi

Department of Obstetrics and Gynecology, University of Abuja Teaching Hospital, Abuja-FCT, Nigeria

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*Correspondence:

Dr. Nathaniel D. Adewole,

E-mail: nadewole2013@gmail.com

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ABSTRACT

Background: Long-acting reversible contraceptives (LARC) are methods used in the prevention of pregnancy that are long lasting. They are effective and efficacious methods of contraception and return to fertility after removal is prompt. Objectives was to determine the uptake of long-acting reversible contraception and assess the characteristics of acceptors of these methods in the area.

Methods: This was a retrospective study of clients' who visited the family planning unit of the University of Abuja teaching hospital over a 5-year period, from 01 January 2015 to 31 December 2019. Information on socio-demographic characteristics and specific methods selected were extracted from their records and represented on simple tables, graphs, and charts.

Results: A total of one thousand eight hundred and ninety-one (1,891) clients accepted available methods of contraceptives during the five-year study period. One thousand seven hundred and twenty-four (1,724) accepted LARC (91.1%) while only one hundred and sixty-seven (167) accepted non-LARC (8.9%). Majority 946 (54.9%) of the clients that accepted LARC were aged between 30-39 years and clients less than 20 years were 22 (1.3%). Clients with parity 3 and above were 1162 (67.7%), and majority of LARC acceptors wanted more children 1145 (66.4%). Amongst the LARC acceptors, most of the clients opted for subdermal implant either Jadelle or Implanon 940(49.7%). Three hundred and ninety-eight (23.1%) discontinued a form of LARC during the study period while 1127 (65.4%) continued with one form of LARC or another.

Conclusions: The uptake of LARC in this region is very high. Teenagers and low parity rarely attended the family planning clinic.

Keywords: LARC, Contraception, Uptake, Acceptors

INTRODUCTION

Africa constitutes 16% of the world's 7.7 billion population as of 2019, making it the second largest continent after Asia.^{1,2} With a population growth rate of about 2.5% which is about five times the developed world, the need for fertility control cannot be overemphasized.^{1,2} Nigeria like most sub-Saharan African countries has a low life expectancy and high fertility rate.³ The high fertility rate and low contraceptive uptake in Nigeria has led to a concerted efforts to promote the

acceptance of family planning and uptake of contraceptives in the country.³

In Nigeria, there is significant unmet need for family planning as 16% of married women have unmet need for family planning while only 15.1% of married women of reproductive age used any contraceptive.⁵⁻⁷ Several studies have demonstrated that there is widespread knowledge of contraceptive options in Nigeria.⁸⁻¹⁰

The long acting reversible contraceptives are the most effective and safest reversible contraceptive method available and is well accepted worldwide.^{4,6} They are methods that provide effective contraception for an extended period without requiring any action from the user. They comprise of the subdermal implants, intrauterine device (IUD) and injectables.^{5,7,8} Long acting reversible contraception (LARC) are the ideal contraceptives for the prevention of unintended pregnancies in most women including adolescents.⁵⁻⁷ The high unintended pregnancy rates in non-LARC like, combined oral contraceptive users of 2-6% are mainly due to the difficulties in adhering to a daily intake schedule by busy women³.

The American college of obstetricians and gynaecologists (ACOG) in 2014 advocated LARC as the first-line contraceptives for adolescents and other women to decrease the unplanned pregnancy rates.⁸ LARC are almost 100% effective, readily reversible with rapid return of fertility, are as effective as sterilization, and do not interfere with spontaneous sexual intercourse.^{5,6,9} Despite these numerous advantages, LARC worldwide are underutilized because of fears and barriers.^{9,10} They are the better option for women in sub-Saharan Africa due to their effectiveness and convenience.

Currently, family planning services are provided by public and private sectors with commodities provided free or subsidized in public sector facilities.¹¹ Despite improved availability of family planning methods, the contraceptive prevalence has not significantly increased mainly because of factors inhibiting access and lack of motivation to use contraceptives. The northern part of Nigeria has one of the lowest rates of contraceptive use and second highest maternal mortality burden in the world.^{11,13}

Studies in Africa have documented deep-seated resistance to the use of modern contraceptives.^{11,12,14} The aim of this study is to determine the uptake of LARC in University of Abuja teaching hospital (UATH) and the characteristics of acceptors, complications and reasons for discontinuation.

METHODS

This was a retrospective descriptive study of 1,891 clients who visited the family planning unit of the University of Abuja teaching hospital over a 5-year period, from 01 January 2015 to 31 December 2019. The University of Abuja Teaching Hospital, Abuja, Nigeria, a 500-bed tertiary health facility that serves the FCT and neighbouring North Central States.

Information on socio-demographic characteristics like age, occupation, parity, number of living children and specific methods of contraception, complications were extracted from their records and imputed into a preformed proforma. Data was analysed using statistical

package for social sciences (SPSS®) version 23 and represented on simple tables, graphs, and charts.

RESULTS

Within the period of study, a total of one thousand eight hundred and ninety-one (1,891) clients accepted available methods of contraceptives during the five-year study period. One thousand seven hundred and twenty-four (1,724) accepted LARC (91.1%) while only one hundred and sixty-seven (167) accepted non-LARC (8.9%). The uptake rate of LARC during the study period was 91.1% as shown in Table 1 below.

Majority of the clients that accepted LARC were aged between 30-39 years 946 (54.9%) and clients less than 20 years were 22 (1.3%) as shown in Table 2. Clients with parity 3 and above were 1162 (67.7%) while parity 2 and below had 553 (31.8%), while 17 (1%) of LARC acceptor were nulliparous. The clients with secondary level of education were 1149 (60.8%) and 303 (17.6%) had tertiary level of education, however, 97 (5.6%) had no formal education. Christians were 1192 (69.1%), Muslims were 478 (27.2%) while other religion were 54 (3.1%).

Table 1: Overview of LARC and non-LARC offered at the family planning clinic.

Type	Options	Frequency	Percent
LARC	Implant	940	49.7
	Injectable	267	14.1
	IUCD	517	27.3
Non-LARC	Condom	6	0.3
	Oral pills	96	5.1
	None	18	1.0
	Not stated	47	2.5
Total		1891	100.0

Most of the LARC acceptors got information about the method through the clinical personnel UATH 732 (42.5%), 469 (27.2%) from other clinics and 329 (19.1%) got information from friends and relatives as depicted in Table 3.

Majority of LARC acceptors wanted more children 1145 (66.4%) while others had completed their family size 539 (31.3%) as shown in Table 4 below.

Amongst the LARC acceptors, most of the clients opted for subdermal implant either Jadelle or Implanon 940 (49.7%) followed by the intrauterine contraceptive devices (IUCD) 517(27.3%), only a few accepted injectables either Depo provera or Noristerat 267 (14.1%). Three hundred and ninety-eight 398 (23.1%) clients discontinued a method due mainly to the desire to conceive and want to change from one method to another however, 1127 (65.4%) continued with one form of LARC or another as shown in Table 5.

Table 2: Socio-demographic characteristics of LARC acceptors.

Characteristics	Frequency	Percent
Age group (years)		
15-19	22	1.3
20-24	128	7.4
25-29	452	26.2
30-34	543	31.5
35-39	403	23.4
≥40	176	10.2
Parity		
0	17	1.0
1	178	10.3
2	353	20.5
3	464	26.9
4	350	20.3
≥5	353	20.5
Not stated	9	0.5
Level of education		
No formal education	97	5.6
Primary	165	9.6
Secondary	1049	60.8
Tertiary	303	17.6
Not stated	110	6.4
Religion		
Christian	1192	69.1
Muslims	478	27.7
Others	54	3.1

Table 3: Source of contraceptives information.

Options	Frequency	Percent
Clinical personnel (UATH)	732	42.5
Community health worker	22	1.3
Friend/relatives	329	19.1
Other clinics	469	27.2
Print media	38	2.2
Radio	31	1.8
Television	22	1.3
Not stated	81	4.7
Total	1724	100.0

Table 4: Future fertility pattern among acceptors.

Desire for more children	Frequency	Percent
Yes	1145	66.4
No	539	31.3
Not certain	5	0.3
Not stated	35	2.0
Total	1724	100.0

Over the five-year study period the trend of uptake of LARC increased as the year went by with implant being the most accepted method as shown in Figure 1. Spotting and menorrhagia are the commonest complications of

LARC. Others complications include: amenorrhea, headache, weight gain and breast tenderness.

Table 5: Discontinuation of LARC.

Options	Frequency	Percent
Yes	398	23.1
No	1127	65.4
Not stated	199	11.5
Total	1724	100.0

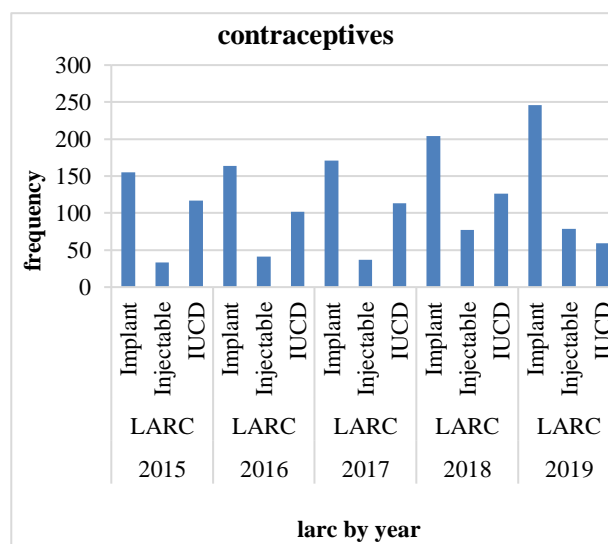


Figure 1: LARC distribution over the study period.

DISCUSSION

The uptake of LARC 91.1% in this study is remarkably high and laudable. This rate is slightly higher than 90.21% reported from Enugu State university teaching hospital (ESUTH).¹⁵ It was however stated that the uptake rate of LARC was high in that study as it was compared to previous studies that were done in 2004, 2011 and a worldwide rate in the 2000s which reported 1.1%, 9% and 15% respectively.^{4,9,10,16,17} The 91.1% uptake rate obtained in this study was lower than 95.8% reported by Eke et al in a study of LARC uptake among adolescent females in Nnewi, South Eastern Nigeria.⁴ The high rate obtained may be related to the provision of free family planning services in our centre and good advocacy by the health personnel as was reflected in the source of family planning information. Over the decades, family planning programs were principally driven by the development partners and nongovernmental organizations with external funding.^{11,12,14}

These efforts are commendable but may not augur well for sustainability in the long term if local authorities fail to assume ownership of these programs. Clients using LARC were largely educated, up to secondary level or more, this may also buttress the reason for the high uptake rate in this facility. Religious belief probably played a significant role in client’s acceptance of LARC

as well as other modern family planning methods. Most acceptors of LARC were Christians. It is believed that many Islamic faithful confined their wives indoors reducing the chance to access family planning facilities.¹⁸⁻²⁰ Majority of acceptors wanted more children which is in agreement to studies done elsewhere within the country in Sokoto and other northern parts of Nigeria.^{10,21} But in contrast to the study done in Aba where most of the clients did not desire to have more children.^{10, 22} This might be due to the fact that most acceptors of LARC wanted them just for child spacing other than completed family size. This may also be related to our aversion to permanent methods of contraception.

Majority of clients chose implant as a form of LARC in this study giving a rate of 49.7%, followed by intrauterine device (IUD) 27.3%. This is in agreement with recent local studies including one that was done in this facility which gave an uptake rate for implant to be 45.8% and 32.1% and is in contrast to the finding in Kano and Zaria in the Northern part of Nigeria; as well as Port-Harcourt in the southern Nigeria where IUD and injectable were the commonest accepted.^{2,6,23-26}

This high rate of implant and IUD maybe attributed to convenience and possibly due to the availability of these methods at the time the clients presented for a method, it could also be due to non-dependency of these methods to coitus and their low side effects profile.

The finding in this study showed that 22.2% discontinued one form of contraceptive or another and the reason for discontinuation was mainly due to method change due to expiration or discontinuation to conceive, this was in keeping with other studies done within and outside Nigeria.^{22,25-27}

The annual trend of LARC showed a steady increase of contraceptive implant with a slow decrease in IUCD which was marked between 2018 and 2019. This was due to acceptors changing methods from IUD to implant i.e. Jadelle or Implanon. This was due to the untoward effects of IUD and also implants were readily available for use during the study period and maybe the counselling is skewed towards the available methods.

CONCLUSION

The uptake rate of LARC among contraceptive seekers is remarkably high in this study and the preferred LARC was implants, other LARC were the injectables and intrauterine device. There was a low acceptance by those who were younger than twenty years and nulliparous. Considering the efficacy and few side-effects profile of LARC, it should be made available to be accessible by all without prejudice.

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