Pattern of Contraceptive Use at 68 Nigerian Army Reference Hospital, Yaba, Lagos Nigeria: A Review

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Review Article

ABSTRACT

Background: A significant proportion of the world's population is under 25 years. Paradoxically most of these people reside in countries with low gross domestic product where most women die from complications related to pregnancy and childbirth. Interestingly, the unmet need for contraception is also high in these low-income countries. Nigeria for instance has a high fertility rate with low contraceptive prevalence rate and high unmet need for contraception.

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Objective: This study therefore aims to determine the pattern of contraceptive usage in a tertiary military facility in Lagos, Nigeria.

Study Design and Setting: It was a seven-year retrospective review at 68 Nigerian Army Reference hospital, Yaba, Lagos from 1st January 2017 to December 31st 2023.

Materials and Methods: Clients case records at the family planning clinic within the study period was retrieved. Those with complete data such as age, parity, marital status, mrthod of contraception, were included in the data analysis.

Results: A total of 4476 women attended the Family Planning Clinic of 68 NARHY during the study period. The mean age of the participants was 32±2, while more than half completed tertiary education 52.73%. Most women prefered subdermal implant with utilization rate of 53.5%, while the least preferred method was bilateral tubal ligation 0.02% followed by intra uterine system with utilization rate of 0.1%.

Conclusion: Subdermal implant is the contraceptive of choice in our study followed by intrauterine contraceptive devices. It also shows overall, that the demand for different methods of contraception is increasing.

1. INTRODUCTION

Nowadays, Family planning, stands out when considering gender equality and women empowerment [1]. It entails several steps taken to determine when a pregnancy occurs which encompasses both fertility treatments for intending couples and different contraceptive methods used to interrupt processes leading to pregnancy [1,2]. *Contraceptive prevalence rate which is the proportion of women who are currently using, or whose sexual partner is currently using, at* least a method of contraception continues to be low in developing countries [2,3]. This is because couples think of decision regarding fertility control as a highly sensitive and personal issue often involving cultural, religious and philosophical convictions [3,4]. The choice of which method to use also depends on availability of the choice contraceptive method and or the medical expertise in (methods requiring a healthcare professional intervention), affordability, concerns about return of fertility following discontinuation, side effects, non-contraceptive benefits, comorbid medical conditions, convenience, reversibility, coital interruption and influence of the male partner [5]. Just as important, Contraception is practiced by many couples for so many reasons, while some use contraception to space their children, or to limit their family size, others use it to delay or avoid childbearing because of effects of pre-existing illness on the pregnancy [1,2].

Access to contraceptives in Nigeria is still not where it ought to be, and this has been fingered as one of the contributory factors to maternal mortality via unsafe abortion and high parity and its attendant consequences [6]. The high percentage of unmet need and low Contraceptive prevalence rate in Nigeria (the cardinal indicators for assessing reproductive health according to sustainable development target 2030) [7] has been a recurring issue in many scientific discussions [8].

Nigeria has a high fertility rate of 5.7% contraceptive prevalence rate of 4 to 12% over 28 years (1990–2018) compared to global average of 49% and unmet need for contraception of 48% among sexually active single women and 19% among married women [9,10,11].

Evidence abound to suggest that Wolwide that there are a lot of significant variations in the types of contraceptive methods used by women of reproductive age, ranging from traditional methods, lactational ammenorrhoea, hormonal contraceptives, injectables, implants, diaphragm, patches, male and female condoms, emergency contraception, intrauterine devices, and permanent methods of contraception [12, 13,14].

This study therefore aims to determine the pattern of contraceptive usage in 68 Nigerian Army Reference Hospital, Yaba, Lagos, Nigeria.

2. MATERIALS AND METHODS

The records of the clients that attended the family planning clinic of 68 Nigerian army Reference Hospital Yaba, from 1st January 2017 to December 31st 2023 were retrieved. Patients who had surgical methods of contraception

attended gynaecological outpatient clinic and were not included in the study. A pretested study proforma was used to collect relevant data which were initially entered in excel spreadsheet and later imported and analyzed using the IBM Statistical Package for Social Sciences (SPSS Statistics) Version 23. Sixty-eight Nigerian Army Reference Hospital Yaba (68NARHY), Lagos is a 500- bed capacity military hospital that serves about 6000 in-and-out patients per month and provides referral services to Nigerian service men and civilians alike. This is located in Yaba Local Council Development Area of Lagos State. It runs daily adult HIV clinic daily family planning clinic supervised by the consultant and trained midwives.

2.1 Study Population

Reproductive age women between 15-49 years who sort contraceptive care within the period were included in the study. Women with incomplete records were excluded from data analysis.

3. RESULTS

A total of 4492 clients attended the clinic within the period of review, 4476 of which had complete data, and were included in the data analysis. The retrieval rate was 99.64%.

The mean age of the participants was 32±2. Women that have three to four children accounted for the greatest percentage of our clients 3170 (70.82%). More than half had tertiary education (52.73).

Subdermal implants was the prefferd method of contraception during the period with more than half of the women requesting for it (53.51%), this was followed closely by intrauterine contraceptive device which accounted for 29.58% and progesterone only injectables accounting for 12.19% making it the 3rd preferred contraceptive option. Overall, surgical method of contraception was the least used method and accounted for 0.02%, it was followed by hormone containing IUDs/IUS which accounted for 0.1%.

Table 1. Socio demographic variables N=4476

Age (years)	Total (%)
< 20-24	857 (19.15)
25-29	894 (19.97)
30-34	1066 (23.82)
35-39	1358 (30.34)
40-44	288 (6.43)
≥45	13 (0.29)
Mean Age	**32±2**
Marital Status	
Single	207 (4.63)
Married	4135 (92.38)
Divorced/widowed	134 (2.99)
Level of education	
None/primary	77 (1.72)
Completed Primary	163 (3.64)
Completed Secondary	1876 (41.91)
Completed Tertiary	2360 (52.73)
Parity	
<1-2	1273 (28.44)
3-4	3170 (70.82)
> 5	33 (0.74)

Table 2. Pattern of contraceptive usage per year studied

Year/ Method	Barrier	BTL	POI	SDI	IUCD	OCP	IUS	Total
2017	0	0	0	97	22	0	0	119
2018	0	0	110	103	115	15	0	221
2019	0	1	106	158	121	12	0	398
2020	0	14	80	260	335	15	0	704
2021	0	1	120	660	166	72	2	1121
2022	19	2	80	427	265	29	1	823
2023	8	0	50	690	300	36	2	1086
Total	27	18	546	2395	1324	179	5	4476
%	0.60	0.02	12.19	53.51	29.58	4.00	0.10%	100

IUS- Intrauterine system. BTL- Bilateral tubal ligation, POI-Progesterone only injections, SDI- sub dermal implants, IUCD- Intrauterine contraceptive devices, OCP- Oral contraceptive pills

Table 3. Indications for contraceptive usage

S/N	Indications	N (%)
1	Contraception	4484 (95.84)
2	Irregular menses	6 (0.13)
3	Fibroids	29 (0.62)
4	Endometriosis	6 (0.13)
5	Dysmenorrhea	83 (1.77)
6	Heavy menstrual Bleeding	67 (1.43)
7	hypothalamic amenorrhea	3 (0.06)
8	Endometrial hyperplasia	1 (0.02)
Total	4679	

*Some women had more than one reason to use a method of contraception

4. DISCUSSION AND CONCLUSION

A total of 4476 clients were identified. Most of our client preferred subdermal implants. This is different from that of Egede et al in southeastern Nigeria where the most common method identified was method specifically male condom accounting for 8.2% of their participants [15]. It is also different from study of Olamijulo and colleague in Lagos Nigeria where male condom also accounted for over half of the participants studied 64.4%) [16]. However, our finding was similar to that of Okunade et al where 46.3% of the women preferred subdermal implant accounting for the majority of their participants [17].

In our review, IUCD was the second most preferred during the period and accounted for 29.58%. Although a significant proportion but different from the study of Enyindah et al where IUCD was the most sort after contraceptive method and was used by 814 (43%) of women in their study [18]. The difference in this pattern of usage may be due to regional differences or cost. This is because in most other facilities women pay for contraceptive method with implants being more expensive. However in military facilities, all contraceptives are provided for free. Other factor that could be responsible for the choice of the sub dermal implants among the clients in our study were presumably due to convenience of the method, educational standard, compliance and the long acting nature of the implants.

However in Kano state of Nigeria, the most common method of contraception was injectable contraceptives 1451 (41.6%), followed closely by IUCD 1124 (32.3%) from the studies of Yakassai et al. [19].

Oral contraceptive pill accounted for 4% of the patients in our study, but according to Mutihir et al in North central Nigeria, oral contraceptives was the second commonest contraceptive of choice amongn the women studied (23.5%) [20].

The striking thing in the study is the yearly trend which revealed steady increase in the utilisation of contraceptives. This is most likely attributed to the fact that modern methods of contraceptive are now increasingly being accepted in our community as a measure for child spacing. There was also a sharp rise in 2020 during the COVID-19 pandemic which may be attributed to lockdown and increased amount of time couples

spent together at home hence increased requirement for contraception.

It is important to state that the link between contraceptive prevalence rates and maternal mortality is evident in the fact that countries with low contraceptive prevalence rates also have very high mortality ratios. Nigeria has one of the highest maternal mortality ratio in Sub-Saharan Africa, and also a major contributor to the number of maternal deaths in the world. According to a recent report by FIGO, approximately 4 out of 10 in every 210 million pregnancies are unplanned or unintended. It was also estimated that about 21 million unsafe abortions occur annually, 9 in 10 of which occur in developing countries. Paradoxically, these are the countries with contraceptive prevalent rate [21].

In conclusion, subdermal implants is the contraceptive of choice in our study followed by intrauterine contraceptive devices. It also shows that overall, that the demand for different methods of contraception is increasing.

Our strenghth is in the relatively large sample size, however we are limited in the study been done in a single centre, which may not be a reflection of the happenings in other parts of the country.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

CONSENT

It is not applicable.

ETHICAL APPROVAL

Ethical approval was obtained from the Health Research and Ethics Committees (HREC) of 68 NARHY Hospital. Patients data was fully anonymyzed.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Bagade T, Chojenta C, Harris ML, Nepal S, Loxton D. Does gender equality and availability of contraception influence maternal and child mortality? A systematic review. BMJ Sex Reprod Health. 2020 Oct;46(4):244-253.
DOI: 10.1136/bmjsrh-2018-200184.
Epub 2019 Nov 21.
PMID: 31754064

2. Bahamondes L, Fernandes A, Monteiro I, Bahamondes MV. Long-acting reversible contraceptive (LARCs) methods. Best Pract Res Clin Obstet Gynaecol. 2020 Jul;66:28-40.
DOI: 10.1016/j.bpobgyn.2019.12.002.
Epub 2019 Dec 20.
PMID: 32014434.

3. RamaRao S, Ishaku S, Liambila W, Mane B. Enhancing contraceptive choice for postpartum women in sub-Saharan Africa with the progesterone vaginal ring: A review of the evidence. Open Access J Contracept. 2015 Sep 18;6:117-123.
DOI: 10.2147/OAJC.S55033.
PMID: 29386929;
PMCID: PMC5683135.

4. Nduku PM, Simo-Kengne BD. Drivers of contraceptive use choice in Zambia. Afr J Reprod Health. 2022 May;26(5):13-27.
DOI: 10.29063/ajrh2022/v26i5.2.
PMID: 37585093.

5. Chigbu B, Onwere S, Aluka C, Kamanu C, Okoro O, Feyi-Waboso P. Contraceptive choices of women in rural Southeastern Nigeria. Niger J Clin Pract. 2010 Jun;13(2):195-9.
PMID: 20499755.

6. Bell SO, Omoluabi E, Ola Olorun F, Shankar M, Moreau C. Inequities in the incidence and safety of abortion in Nigeria. BMJ Glob Health. 2020 Jan 7;5(1): e001814.
DOI: 10.1136/bmjgh-2019-001814.
PMID: 32133166;
PMCID: PMC7042592.

7. SDG Indicator 3.7.1 on Contraceptive Use | Population Division [Internet]. www.un.org.
Available:https://www.un.org/development/desa/pd/data/sdg-indicator-371-contraceptive-use Accessed31 May 31, 2024

8. Solanke BL, Adetutu OM, Rahman SA, Soladoye DA, Owoeye MO.

Prevalence and determinants of unmet need for contraception among women in low and high-priority segments for family planning demand generation in Nigeria. Arch Public Health. 2022 Nov 21;80(1): 239.
DOI: 10.1186/s13690-022-00997-x.
PMID: 36404339;
PMCID: PMC9677901.

9. Michael TO, Agbana RD, Ojo TF, Kukoyi OB, Ekpenyong AS, Ukwandu D. COVID-19 pandemic and unmet need for family planning in Nigeria. Pan Afr Med J. 2021 Nov 26;40:186.
DOI: 10.11604/pamj.2021.40.186.27656.
PMID: 35059106;
PMCID: PMC8728804.

10. Fadeyibi O, Alade M, Adebayo S, Erinfolami T, Mustapha F, Yaradua S. Household structure and contraceptive use in Nigeria. Front Glob Womens Health. 2022 May 10;3:821178.
DOI: 10.3389/fgwh.2022.821178.
PMID: 35620301;
PMCID: PMC9128017.

11. Family planning/contraception methods [Internet]. www.who.int.
Available:https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception#:~:text=In%202022%2C%20global%20contraceptive%20prevalence.
Accessed May 31, 2024.

12. Olugbenga- Bello AI, Abodunrin OL, Adeomi AA. Contraceptive practices among women in rural communities in South-Western Nigeria. Global Journal of Medical Research. 2011; 11:1–9.

13. Cameron ST. Contraception and Abortion. In: Bickerstaff H, Kenny L.C (Eds.). Gynaecology by Ten Teachers. 20th Edition, London. Taylor and Francis Group CRC Press. 2017:117- 149.

14. Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. Lancet. 2012;380:149-59.

15. Egede JO, Onoh RC, Umeora OU, Iyoke CA, Dimejesi IB, Lawani LO. Contraceptive prevalence and preference in a cohort of south-east Nigerian women. Patient Prefer Adherence. 2015 May 25; 9:707-14.
DOI: 10.2147/PPA.S72952.
PMID: 26045662;
PMCID: PMC4448930.

16. Olamijulo JA, Olorunfemi G. Knowledge and practice of contraception among pregnant women attending the antenatal clinic in Lagos University Teaching Hospital. Niger J Med. 2012 Oct-Dec;21(4):387-93.
PMID: 23304945.

17. Okunade, KS, Daramola E, Ajepe A, Sekumade A. A 3-year review of the pattern of contraceptive use among women attending the family planning clinic of a University Teaching Hospital in Lagos, Nigeria. African Journal of Medical and Health Sciences. July-Dec 2016;15(2):69.

18. Enyidah N, Enyidah EI, Eshemogie NS, Pattern of contraceptive use at a family planning clinic in Southern Nigeria. International Journal of Research in Medical Sciences. 2020;8(6):2082–2087.

19. Yakasai, Ibrahim A, Yusuf, Abubakar M. Contraceptive choices amongst women in Kano, Nigeria: A five (5) year review. Journal of Medicine in the Tropics. Jul–Dec 2013;15(2):113-116.
DOI: 10.4103/2276-7096.123586

20. Mutihir JT, Pam VC. Overview of contraceptive use in Jos University Teaching Hospital, north central Nigeria. Nigerian Journal of Clinical Practice. April–June 2008;11(2):139-143,.

21. Contraception and its benefits | FIGO [Internet]. Figo.org; 2018.
Available:https://www.figo.org/contraception-and-its-benefits Accessed may 31 2024.

Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/118529