

## **PATTERN OF CONTRACEPTIVE USE AT 68 NIGERIAN ARMY REFERENCE**

### **HOSPITAL, YABA, LAGOS NIGERIA: A REVIEW**

#### **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.

##### **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 1<sup>st</sup> January 2017 to December 31<sup>st</sup> 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, method of contraception, were included in the data analysis.

**RESULT:** A total of 4476 women attended the Family Planning Clinic of 68 NARHY during the study period. The mean age of the participants was  $32 \pm 2$ , while more than half completed tertiary education 52.73%. Most women preferred 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.

Key words: Family planning,Pregnancy,Gender Equality,Women Empowerment

## INTRODUCTION

Nowadays, Family planning, stands out when considering gender equality and women empowerment.<sup>1</sup> 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.<sup>1, 2</sup>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.<sup>2, 3</sup> This is because couples think of decision regarding fertility control as a highly sensitive and personal issue often involving cultural, religious and philosophical convictions.<sup>3, 4</sup> 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.<sup>5</sup> 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.<sup>1, 2</sup>

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.<sup>6</sup> 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)<sup>7</sup> has been a recurring issue in many scientific discussions.<sup>8</sup>

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.<sup>9, 10, 11</sup>

Evidence abound to suggest that Worldwide 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.<sup>12, 13, 14</sup>

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

## **MATERIALS AND METHODS:**

The records of the clients that attended the family planning clinic of 68 Nigerian army Reference Hospital Yaba, from 1<sup>st</sup> January 2017 to December 31<sup>st</sup> 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.

## **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.

## **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  $32\pm 2$ . 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 preferred 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 3<sup>rd</sup> 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
<b>MARITAL STATUS</b>	
Single	207 (4.63)
Married	4135 (92.38)
Divorced/widowed	134 (2.99)
<b>Level of education</b>	
None/primary	77 (1.72)
Completed Primary	163 (3.64)
Completed Secondary	1876 (41.91)
Completed Tertiary	2360 (52.73)
<b>Parity</b>	
<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
<b>TOTAL</b>	27	18	546	2395	1324	179	5	4476
<b>%</b>	<b>0.60</b>	0.02	12.19	<b>53.51</b>	29.58	4.00	<b>0.10%</b>	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	TOTAL	4679

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

## **DISCUSSION**

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.<sup>15</sup> 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%).<sup>16</sup> 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.<sup>17</sup>

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.<sup>18</sup> 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.<sup>19</sup>

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

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.<sup>21</sup>

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 strength 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.

#### ETHICAL APPROVAL

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

#### **Disclaimer (Artificial intelligence)**

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Details of the AI usage are given below:

- 1.
- 2.
- 3.

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