

Gynecology & Reproductive Health

A 4 Year Experience with Copper T Intrauterine Contraceptive Device at Federal Medical Centre (Fmc), Katsina

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ABSTRACT

Background: The prevalence of contraceptive use is still very low in Nigeria. Use of modern contraceptive methods has been shown to reduce unwanted pregnancy, high parity and maternal mortality.

Objectives: The aim of this study is to determine the acceptance rate of intrauterine contraceptive method, the socio-demographic characteristics of its users, side-effects, discontinuation and the reason thereof, at Federal Medical Centre, Katsina.

Method: A retrospective study that reviewed records of all clients who used intrauterine contraceptive method at the family planning clinic over a 4-year period (1st January 2011 to 31st December 2014).

Results: Out of the 1892 family planning clients, 111 used IUCD, with IUCD acceptance rate of 5.87%. The modal age group was 20-24 years (30.0%). Most of them (n=54) were grandmultiparous (48.6%), and of Islamic faith (98%). Almost all the clients were married (97.8%), and majority had secondary education (71%). Thirty-five (31.5%) of the users discontinued the method, with the commonest indication being desire for pregnancy (45.7%). No contraceptive failure was recorded during the study period.

Conclusion: IUCD is the fourth commonly used method. Its use is influenced by maternal age, parity and literacy level. In spite of its long duration of action, most of the reversal was due to the desire for pregnancy. Acceptability of IUCD can be improved by health education, adequate counseling and careful client selection.

Keywords

Copper T IUCD, Contraceptive experience, FMC Katsina.

Introduction

The contraceptive prevalence rate for Nigeria is 16 percent for any method and 11 percent for modern methods [1].

Several reports have associated unwanted pregnancy, high fertility rates and high parity with high Maternal Mortality Rates (MMR) in Nigeria [3]. Contraception, when accepted and used by majority

of women in any given community, has been shown to reduce unwanted pregnancy, high parity and consequently maternal mortality [3].

Intrauterine contraceptive device (IUCD) is used by more than 150 million women worldwide, making it the most widely used long-acting reversible contraceptive method [5]. Its mechanism of action though not well understood, is via copper-mediated inhibition of sperm motility, Foreign body induced, cell-mediated activity in the endometrium (via the release of

leukocytes and prostaglandins) that is both spermicidal and prevent implantation [4-6].

Some properties of copper T-380A make it near ideal contraceptive method, as it is long-lasting, highly effective, it does not interfere with spontaneity of sex, does not affect lactation, does not interact with most medications, is immediately reversible, and is not subject to forgetfulness. Moreover, it does not have any hormonelated side effects and there is no evidence that it is associated with weight gain, altered libido, or mood changes [7]. Copper T-380A has been shown to consistently maintain its efficacy for 12 years [4,8]. Though effective, these devices are not without side effects. Menses are likely to be longer and heavier, which could persist for the duration of its use, with associated dysmenorrhea [4].

Objective

This study is aimed at evaluating the acceptance rate of intrauterine contraceptive device (IUCD), the socio-demographic variables of its users, reported side effects, its discontinuation rate and the reasons thereof, and suggest measures that would improve its acceptance among our women.

Materials and Methods

The data of all clients at the family planning clinic unit of our facility from January 1, 2011 to December 31, 2014 were collated. The records were analyzed for socio-demographic characteristics, side-effects, discontinuation rate and reasons for discontinuation.

Discontinuation rate is defined as the number of women who initially were using the IUCD but had to stop or change to another method for various reasons within the period.

EPI Info Version 3.3.2 was used for the statistical analysis

Results

There were 1892 family planning clients over the study period. Almost all the clients (1854) were Moslem (98%). Most (1869) of the clients were married (98.8%), and majority (1343) had at least secondary level of education (71%). The most accepted method (748) is Injectable method (39.53%), followed by Combined Oral contraceptive pills (595) 31.45%. The least accepted method (9) was Condoms (0.47%).

One hundred and eleven (111) clients accepted IUCD, with acceptance rate of 5.87%. Their ages ranged from 15-52 years, with the modal age group being 20-24 years (30.0%). Acceptance of IUCD was highest (53) among grandmultiparous clients (47.7%), and least (4) among nulliparous ones (3.6%). About 31.5% of the users discontinued the method, with the commonest indication being desire for pregnancy (45.7%). The contraceptive prevalence in relation to the number of deliveries within the study period was 25%. There was no documented case of IUCD contraceptive failure.

Table 1: Distribution of various contraceptive methods.

| Method | 2011 | 2012 | 2013 | 2014 | Total | Percent (%) |
|---------------|------|------|------|------|-------|-------------|
| IUCD | 40 | 23 | 20 | 28 | 111 | 5.87 |
| Injectables | 191 | 165 | 196 | 196 | 748 | 39.5 |
| Implants | 80 | 130 | 107 | 93 | 410 | 21.70 |
| Pills (Orals) | 153 | 161 | 120 | 161 | 595 | 31.4 |
| BTL | 6 | 5 | 4 | 4 | 19 | 1.00 |
| Condoms | 2 | 2 | 4 | 1 | 9 | 0.47 |
| Total | 472 | 486 | 451 | 4683 | 1892 | 100 |

IUCD is the fourth most commonly used method. Its acceptance was highest in 2011, and lowest in 2013.

Table 2: Socio-demographic Characteristics of the Clients:

| | |
|-------------------------------|--------------------|
| 2a. Religion | |
| Moslem | 1854 (98%) |
| Christians | 38 (2%) |
| Total | 1892 (100%) |
| 2b. Level of Education | |
| None | 273 (14.4%) |
| Primary | 157 (8.3%) |
| Secondary | 1343 (71%) |
| Tertiary | 119 (6.3%) |
| Total | 1892 (100%) |
| 2c. Marital Status | |
| Married | 1869 (98.8%) |
| Single | 23 (1.2%) |

Almost all the Clients accessing various contraceptive methods were married.

Table 3: Relationship between Age and various methods of contraception.

| Age Group | IUCD | Injectable | Implants | Oral Pills | BTL | Condom | Total % |
|--------------|------------|------------|------------|------------|-----------|----------|------------------|
| 15-19 | 2 | 27 | 16 | 29 | 0 | 0 | 74 (4.0) |
| 20-24 | 14 | 217 | 130 | 207 | 0 | 0 | 568 (30.0) |
| 25-29 | 35 | 226 | 116 | 180 | 0 | 2 | 559 (29.5) |
| 30-34 | 28 | 153 | 79 | 102 | 8 | 6 | 376 (19.9) |
| 35-39 | 18 | 87 | 51 | 58 | 6 | 0 | 220 (11.6) |
| 40-44 | 11 | 28 | 15 | 18 | 4 | 1 | 77 (4.1) |
| 45-49 | 3 | 8 | 3 | 1 | 1 | 0 | 16 (0.85) |
| 50 & above | 0 | 2 | 0 | 0 | 0 | 0 | 2 (0.11) |
| Total | 111 | 748 | 410 | 595 | 19 | 9 | 1892(100) |

IUCD is the 4th most accepted method, with majority (59.5%) in their third decade of life.

Table 4: Parity and type of contraception used by clients.

| Parity | IUCD | Injectables | Implant | Pills | BTL | Condom | Total |
|-------------------------------|------|-------------|---------|-------|-----|--------|-------|
| 0 | 4 | 8 | 6 | 3 | | | 21 |
| 1 | 14 | 123 | 75 | 95 | | | 307 |
| 2-4 (Multipara) | 40 | 392 | 210 | 273 | 8 | 2 | 925 |
| 5 and above. (Grandmultipara) | 53 | 225 | 119 | 224 | 11 | 7 | 639 |
| Total | 111 | 748 | 410 | 595 | 19 | 9 | 1892 |

IUCD was used mostly by clients with advanced parity.

Table 5: Indication for removal of IUCD.

| Indications | Number | Percentage (%) |
|---------------------|-----------|----------------|
| To get pregnant | 16 | 45.7 |
| Husband's complaint | 8 | 22.8 |
| Menorrhagia | 5 | 14.3 |
| Missing tags | 3 | 8.6 |
| No reason | 3 | 8.6 |
| Total | 36 | 100 |

Thirty-five of the 111 clients that accepted IUCD discontinued the method. The desire to get pregnant accounted for 45.7% indication for discontinuation.

Discussion

There were 1892 clients at our family planning unit, of which 111 used IUCD, as the fourth most accepted method of contraception, with an acceptance rate of 5.87%. This is in keeping with figures reported from Enugu, Nigeria [9] but lower than 64.1% [10] and 58.17% [11] reported from Anambra and Lagos respectively. The low acceptance rate could be due to misconception, as many believe the device could be displaced during coitus, and is disliked by male partners who often decide the nature of the contraceptive to be used by their wives.

The contraceptive prevalence in relation to the number of deliveries (7575) within the study period was 25%. This is higher than 12.4% and 16% reported from Anambra as well as the national average but much lower than global prevalence rate of 63.3% [10-12]. The relatively high prevalence rate may be due to sustained efforts by the Government at all levels and other donor agents in making contraceptive services available and accessible and free of charge for a long time [13]. The acceptability can be further increased by continued advocacy, proper client selection, adequate (balanced) counselling strategy, proper administration as well as continued provision of free services.

The most frequent users were between 20-24, closely followed by the 25-29 age group, with the two age groups accounting for 59.5% of IUCD users in this study and this is in keeping with similar study in Uyo and Maiduguri [3,14]. This corresponds with the age at which individuals build their career, hence the need for effective contraception to avoid unplanned pregnancies.

Parity plays key role in acceptance of IUCD, with 47.7% reported among grandmultiparous women. It is significantly lower in clients with low parity.

Most of the clients were of Islamic faith, which is the predominant religion in the state. The use of contraception to control birth/population is not readily accepted by the Muslim faithfuls [15]. Almost all our clients (98.8%) were married. This may be due to cultural and religious restrictions on pre-marital sex and the general misconception that associates adolescent and unmarried contraception with sexual permissiveness [3,16,17].

The finding of a greater proportion of the acceptors being educated

is in agreement with several reports that showed that well educated African couples are more likely to accept modern methods of contraception than the less educated ones [3,14].

The cumulative discontinuation rate over the four years is 31.5%. This is similar to the value (29.8%) reported from Ibadan [18]. The most common reason for discontinuation was the desire for pregnancy (45.7%). This is in agreement with other studies [10,18,19]. Others included husbands' dislike (28.6%), menorrhagia (17.1%), and missing strings (8.6%) while some offer no any reason. No IUCD contraceptive failure was recorded during the period of review.

In conclusions, intrauterine contraceptive devices (IUCD) are the fourth most accepted contraceptive methods in our setting. Its use is influenced by maternal age, parity and literacy level. In spite of its long duration of action, most of the reversal was due to desire for pregnancy.

Recommendations

- There should be improvement in female education and public enlightenment through the mass media on the benefits and importance of family planning services.
- The acceptability of IUCD can be increased by adequate counselling, careful client selection, careful insertion, and regular follow-up with quick access to medical care.
- Continued provision of free IUCD and services will enhance its utilization.
- Postpartum and post-abort IUCD insertions will increase its acceptance.
- Making available a Levonorgestrel intrauterine system, that reduce menstrual loss will improve acceptance of IUCDs in general.

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