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The uptake of intrauterine contraceptive device (copper t 380 a) in Federal Medical Center keffi, north-central Nigeria

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ABSTRACT

Background: IUCD is one of the most widely accepted methods of contraception in the world today. It is safe and effectively averts many maternal deaths.

Methods: This is a retrospective study carried out at the Family Planning unit (FPU) of the Federal Medical Centre Keffi from 1st January 2020 to 31st December 2020, to determine the socio-demographic characteristics and complications experienced by clients who chose intrauterine contraceptive device as a form of contraception. Relevant data such as patients age, parity, educational status, complications, reasons for removal were imputed into a proforma, collated and analysed using IBM SPSS 25. Descriptive statistics were computed from data generated.

Results: 576 new clients were seen at the FPU during this period, of which 304 (53%) choose intrauterine contraceptive device (IUCD). 52.6% of the women were aged 30-39 years while (38.5%) were grand multiparous women. 197 clients (64.8%) had secondary school education. The most common reason for discontinuation of IUCD was desire for pregnancy (5.9%).

Conclusion: IUCD is a safe, well accepted and effective contraceptive method. Its effectiveness can further be enhanced by proper counselling, proper selection criteria and correct insertion technique.

Key words: IUCD, contraceptives, women, clients

INTRODUCTION

Since the introduction of modern contraception in the late 1950's and early 1960's, there has been various additional new methods among which is the intrauterine contraceptive device.^{1,2} The IUCD has also undergone a lot of changes to the current copper and hormone impregnated IUCD.^{1,2,3,4.}

IUCD is one of the most widely accepted methods of contraception in the world today.^{1,5} Worldwide, 13% of all women of reproductive age use the IUCD, making it the second most commonly used family planning method after voluntary female sterilization.^{6, 7} It is safe in preventing pregnancy and more effective than condoms, barrier methods or natural family planning methods.⁸ Modern IUCD prevents pregnancy so effectively thus averting many maternal deaths.⁷

It is estimated that more than 106 million women worldwide are using IUCD to prevent pregnancy with about

60 million in China and 11 million in developed countries.^{7, 9} Hospital data from Lagos, Nigeria shows that 68% of clients use IUCD, making it the most commonly chosen method of contraception.¹⁰

IUCD advantages are: safe to use, effective, long lasting, independent of coitus, rapid return to fertility after removal, cost effective and the modern ones helps to reduce menorrhagia, improve dysmenorrhoea, reduce rate of expulsion and make insertion and removal easier.^{2,3,10,11} These advances could lead to greater acceptance and use of IUCD.³ It is inserted in the outpatient clinic and requires periodic follow up to check for the IUCD string and to review possible complaints.

This study examines the socio demographic characteristics of IUCD users in our centre, the contraceptive effectiveness, acceptability, complications and reasons for discontinuation by clients.

MATERIALS AND METHOD

The study was a retrospective study carried out at the family planning unit (F P U) of Federal Medical Centre Keffi between January 1st 2020 and December 31st 2020. Women who were eligible and chose IUCD copper T 380A as a form of contraception had their records retrieved and documented in a proforma. The following information were retrieved from the folders: age, parity, educational level, source of referral, previous contraceptive use, time of insertion in relation to menstruation and last child birth, types of complications experienced, duration of use and reasons for removal. Those lost to follow up had their records obtained from the case records. All the women were followed up at 1,3,6, and 12 months and at any time they had complaints.

Lost to follow-up means there was no reason for stopping check-up before the close of study. Acceptability of contraceptive method is measured as

the rate of continued use for one year or more. Effectiveness is expressed as the percentage of women experiencing an unintended pregnancy during the first year of use and the percentage continuing use at the end of the first year of use.¹⁵

RESULTS.

A total of 576 new contraceptive clients were seen at the FPU during the period of study of which 304 (53%) of them choose IUCD.

Table 1 shows the socio-demographic characteristics of IUCD users. Women in the third decade of life (52.6%) and multiparous women (60.6%) constituted the highest number of clients. Slightly above one third of the women (38.5%) were grand multiparous and 197(64.8%) of the women had at least secondary school education.

The main source of information (Table 2) was from medical personnels (84.5%). Table 3 shows 60% of acceptors of IUCD had used a modern

contraceptive method before and 28% had used IUCD previously.

Table 4 shows 182 (60%) of new acceptors had their insertion more than 12months after last child birth, 245 (80.6%) had their insertion during menstruation while 3(0.9%) of the women had post abortion insertion.

234(76.9%) of the women continued IUCD use for up to the 12th month and beyond (Table 5), while 30(9.9%) discontinued use within the period of study. 40(13.2%) were lost to follow up.

Majority of clients 229 (75.3%) had no complications (Table 6) Medical problems such as vaginal bleeding was the commonest complaint. Others included abdominal pain 5.3%, profuse vaginal discharge 5.3%, loss of libido 0.3, dizziness 0.3% and dysuria 0.9%.

Complications such as missing strings, expulsion, unintended pregnancy and pelvic inflammatory diseases were seen in 4.9%, 1.3%, 1.3% and 0.7% of

patients respectively. Only 1 (0.3%) client had uterine perforation.

The continuation rate for all clients was about 77%, while the commonest reason for discontinuation was desire for pregnancy (5.9%), medical reasons accounted for 3.3% of discontinuation rate and unintended pregnancy accounted for 0.9%. 40(13.2%) of the clients were lost to follow up.

Table 1: Sociodemographic characteristics of new IUCD acceptors

Age	Number	%
<19	3	0.9
20-29	85	28.0
30-39	162	53.3
≥40	54	17.8
Total	304	100.0

Parity	Number	%
0	3	0.9
1	31	10.2
2	40	13.2
3	58	19.1
4	55	18.1
≥5	117	38.5
Total	304	100.0

Educational level	Number	%
None	36	11.9
Primary	71	23.3
≥ Secondary	197	64.8
Total	304	100.0

Table 2: Source of information.

Source of information	Number	%
Mass media	22	7.2
Medical personnel	257	84.5
Friends & Relatives	19	6.3
Outreach Programmes	6	2.0
Total	304	100.0

Table 3: Previous modern contraceptive used.

Contraceptive	Number	%
None	122	40.1
Oral pills	34	11.2
IUCD	85	28.0
Injectables	43	14.1
Emergency	7	2.3
Barrier methods	9	3.0
Vaginal tablets	4	1.3
Total	304	100.0

Some used more than one method previously.

Table 4: Timing of insertion

Relative to last child birth

Time	Number	%
< 6 weeks	18	5.9
6 weeks – 6 months	27	8.9
>6 months-12 months	56	18.4
>12 months	182	59.9
Unstated	21	6.9
Total	304	100.0

Relative to menstruation.

Events	Number	%
During menstruation	245	80.6
Before resumption of menses	40	13.2
Post abortion	3	0.9
Not stated	16	5.3
Total	304	100.0

Table 5: Duration of use within the year of study

Duration of use	Number	%
< 3 months	18	5.9
3 months-6 months	22	7.3
> 6 months-12months	30	9.9
1 year and greater	234	76.9
Total	304	100.0

Table 6 Complications experienced

Complications	Numbers	%
Bleeding	18	5.9
Abdominal pains	16	5.3
Vaginal discharge	16	5.3
Expulsion	4	1.3
Missing tag	15	4.9
Dysuria	3	0.9
Loss of Libido	1	0.3
Dizziness	1	0.3
Perforation	1	0.3
Unintended pregnancy	3	0.9
Others	12	3.9

Some client had more than one complication.

Table 7: Reasons for Discontinuation

Reasons	Number	%
Unintended pregnancy	3	0.9
Desire for pregnancy	18	5.9
Medical reasons	10	3.3
Expulsion	2	0.7
Missing tag	4	1.3
Perforation	1	0.3
Spousal refusal	1	0.3
Pelvic inflammatory disease	2	0.4
Lost to follow up.	40	13.2

Some clients had more than one reason for discontinuation and desire for pregnancy was the most potent.

DISCUSSION

The use of IUCD as a method of contraception has grown steadily worldwide over the past years compared to any other contraceptive method. It is the contraceptive of choice in many centres in Nigeria.^{1,10,12,13,14}. This was demonstrated in this study where IUCD was the contraceptive method of choice in 53%

of new clients. Though this is in contrast to findings in the NDHS 2013 report where oral pills and injectables were the leading methods⁸. The safety, effectiveness and acceptability of IUCD as a contraceptive method may have accounted for this and this was further re-established in this study which shows a 77% continuation rate with 75.3% of clients having no complications within the year of study. The complications of IUCD experienced by new clients were also

very few. Expulsion/missing IUCD string constituted 6.2% out of which 2.0% discontinued IUCD use and of the 17% with medical complications, only 3.3% discontinued IUCD use. The rate of expulsion/missing IUCD string of 6.2% is in keeping with reports of expulsion occurring in the range of less than 1-7 per 100 women in the first year of use ^{7,17}. Most expulsion is said to occur in the first year especially in the first 3 months following insertion. ^{7, 15, 17} Younger women and those women who had never been pregnant or had children are said to be more likely to expel their IUCD probably due to smaller uterine cavities ⁵, however this has not been confirmed in this study, where majority of clients were older and multiparous.

Most of the new IUCD clients in this study are in the second and third decade of life representing 28% and 52.6% respectively. Greater than 50% of the clients are multiparous, while teenagers and nulliparas form an

insignificant percentage of IUCD users. This finding compared with previous studies in Jos^{7,15,21} and in the U.K.^{7,15,21} The small number of teenagers is beneficial since these groups are known to be more sexually active and hence more prone to pelvic inflammatory diseases ^{7, 18, 19} which could predispose to complications.

About 35.2% of the new clients had primary or no education at all, while 65% had at least secondary school education. Educational level thus bears a positive relation to contraceptive use.¹⁶. Thus, education improves utilization of available family planning services and help women make responsible and informed contraceptive choices. It may be that the uneducated poor and less privileged are not even aware of this contraceptive method.

More than three quarters (84.5%) of the clients got information about IUCD from medical personnel. This is at variance with studies from Aba and Turkey where mass media was an

important source of information for most women,^{7, 14} It should be noted that family planning workers and clients who are satisfied with IUCD use refer their friends and relatives to the clinic.¹⁴

The commonest previous contraceptive method used by new clients was IUCD. These reflects the safety, effectiveness and acceptability of the method in the general population.

Most of the client's(59.9%) inserted their IUCD one year after the last childbirth and commonly during menstruation (80.6%). The effect of this is that a few women who desire contraception but waited for one year never got to do it as they may have been pregnant before having the chance to make contraceptive choices. This practice is largely due to ignorance, hence, proper counselling, especially during antenatal period and through the mass media of the right insertion timing will change this perspective.^{6,7,15} The benefits of

insertion during menses includes a fully patent cervical canal, a more distensible endometrial cavity and reduced uterine cramps.²²

76.9% of the new clients continued IUCD use till the 12th month with only 9.9% discontinuation rate which shows a high level of acceptability.

About 13.2% of new clients were lost to follow up during the period of study. However, the ones lost to follow up may also have continued usage and follow up in other centres since few complications are experienced with IUCD use with careful client selection.^{6,7}

The most frequent cause of failure is unnoticed expulsion of IUCD ^{7, 15}. This can be prevented by regular check for the IUCD string by the user and promptly reporting any suspicion of lengthening. For many women who rarely access health care services, the insertion of an IUD immediately postpartum presents a unique opportunity for them to initiate a long-

acting reversible method of family planning²².

In conclusion, the use of Cu-T 380A IUCD as a modern contraceptive method is highly acceptable, safe and effective. These attributes can further be enhanced by: education and empowerment of women so that they can take informed contraceptive decisions, male participation in family planning counselling, enhanced family planning campaigns in both the print and electronic media, and outreach programmes in rural areas enlightening the populace on the benefits and likely complications and on the need to report complications early. Other ways include proper counselling and good selection of clients, training and retraining of providers and closer supervision of trainers. Regular check-up and early presentation will further help identify and treat complication as may be necessary.

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