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Research Article

Socio-demographics of intrauterine contraceptive device acceptors in FETHA – A 4 year retrospective study

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Abstract...

Background: Use of modern contraceptive methods has been shown to reduce unwanted pregnancy, high parity and maternal mortality. Intrauterine contraceptive devices which are among the safest and most effective reversible contraceptives available, are particularly suitable for women in developing countries as they are affordable, convenient to use, do not require re-supply visits and are very cost-effective.

Aim: To determine the prevalence and socio-demographic characteristics of intrauterine contraceptive device acceptors at the Federal Teaching Hospital, Abakaliki.

Materials and methods: This was a retrospective study of sociodemographics of intrauterine contraceptive device acceptors in FETHA- A 4 year retrospective study from January 1st, 2020 to December 31st, 2023 conducted at the obstetrics & gynaecology department of FETHA. The record cards of all clients who had intrauterine contraceptive device inserted at the family planning clinic of FETHA over a four-year period were reviewed.

Results: During the study period, there were 1645 new contraceptive acceptors out of which 202 accepted the intrauterine contraceptive device giving a prevalence of 12.3%. The modal age group of the clients was 25-29 years (48.5%). Acceptance of intrauterine contraceptive device was most common among multiparous clients (59.4%). Majority of the acceptors were married (95.0%), Christians (94%) and 70.3% had at least secondary school education. Lower abdominal pain (13.4%) and abnormal vaginal discharge (10.9%) were the most common symptoms. Missing intrauterine contraceptive Device accounted for 3% of the complications/symptoms noted among clients. Majority of the acceptors had the insertion done by doctors (59.4%).

Conclusion: The prevalence of intrauterine contraceptive acceptors in our centre is 12.3%. The acceptors of intrauterine contraceptive devices in our center were young, multiparous and had at least secondary education. The prevalence of intrauterine contraceptive device acceptors of 12.3% is low when compared with other types of contraceptives hence more awareness needs to be created among the populace. However, the low incidence of missing intrauterine contraceptive device (3%) noted in the study highlights the need for involvement of more trained doctors in insertion of IUCD.

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Introduction

The modern Intrauterine Device (IUD) was first described in 1909 by Dr. Richard Richter, a physician who saw the need for reliable, long term, reversible contraception [1]. Currently, there are an estimated 160 million IUD users worldwide making it the most popular form of reversible contraception [2,3]. The use of this device is a popular form of contraception among clients in developing countries [4]. In Nigeria, the level of acceptance ranges from 39.7% to 64% [4,5]. It is inexpensive, effective, can be used for a long period of time and most importantly is reversible [6]. A failure rate of 1-2% each year has been reported [7].

Missing intrauterine contraceptive device is one of the setbacks associated with the use of the device [8]. Perforation of the uterus with subsequent migration into the peritoneal cavity or retroperitoneum is an uncommon but serious complication [9].

Other complications of IUCD include menorrhagia, hypermenorrhea, dysmenorrhea, pelvic inflammatory disease, spontaneous abortion and unwanted pregnancy [9,10]. Missing intrauterine contraceptive device strings are usually asymptomatic and occurs in 5-25% of all insertions and require a safe diagnostic technique [8].

A missing intrauterine contraceptive device string does not necessarily indicate perforation since it may occur when the device has been expelled unnoticed, rotation of the device within the uterine cavity, enlargement of the uterus by pregnancy, separation of the tail from the device, insertion into one horn of the uterine didelphys or retraction of the string into the cervical canal [11]. It has also been suggested that complete extrusion of intrauterine contraceptive device through the myometrium may be assisted by spontaneous uterine contraction and hydrostatic negative pressure differences between the low intraperitoneal pressure and relatively higher intrauterine pressure [12].

The risk factors for missing intrauterine contraceptive device are the time of insertion, type, size and configuration of the intrauterine contraceptive device used as well as the skill and the experience of the inserter [13]. Typically, the misplaced IUD is signaled by shortening or disappearance of retrieval threads at the cervical os. In most cases, there are no associated symptoms and diagnosis of displaced intrauterine contraceptive device is made when the device cannot be identified [14].

Investigations done to confirm missing intrauterine contraceptive device include plain abdominal X-ray with a marker in the uterus, pelvic examination with ultrasound, hysterosalpingogram, and abdomino-pelvic ultrasound [10]. Other investigations that could be done include diagnostic hysteroscopy, diagnostic laparascopy, cystoscopy, computed tomography and magnetic resonance imaging [15]. Methods of management include the use of retrieval hook, dilatation and retrieval and laparatomy. partial extrusion is picked out with artery forceps [14].

Few studies have been done on this topic in the Southeast Nigeria and none has been done at Federal Teaching Hospital, Abakaliki. This study was designed to study the Socio-demographics of acceptors IUCD at Federal Teaching Hospital, Abakaliki Southeast of Nigeria. The findings of this study would further highlight this problem and thus create greater awareness among the populace. This would assist in planning interventions in other to ehance the need for the use of this method of contraception thus preventing the morbidity and mortality associated with unintended pregnancy.

Aim

To determine the prevalence and socio-demographic characteristics of intrauterine contraceptive device acceptors at the Federal Teaching Hospital, Abakaliki.

Specific objectives

1. To assess common presenting symptoms and complications
2. To determine care provider

Materials and methods

Study design

This was a retrospective study of sociodemographics of intrauterine contraceptive device acceptors in FETHA- A 4-year retrospective study from January 1st, 2020 to December 31st, 2023 conducted at the obstetrics & gynaecology department of FETHA.

Study population

From the family planning register, the registration numbers of all clients who had IUCD inserted between January 1st, 2020 to December 31st, 2023 were obtained. With the numbers, the clients' record cards were retrieved for in-depth study.

Data collection

Data were retrieved from their personal case files, operating theatre records and delivery register. Data extracted into a study proforma focusing on socio-demographics, obstetrics characteristics, contraceptive choice, common presenting symptoms/ complications and care providers.

Data analysis

Data collection was done using a pre-designed proforma. The results were expressed as frequency tables and percentages and the results obtained formed the basis of the discussion.

Results

During the study period, there were 1645 new contraceptive acceptors out of which 202 accepted IUCD resulting in a prevalence of 12.3% (Table 1).

The socio-demographic characteristics of the IUCD acceptors are shown in (Table 2). Their ages ranged from 15-47 with the modal age group being 25-29 years (48.5%). Acceptance of IUCD was most common among multiparous clients 120(59.4%), when compared to nulliparous 2(1.0%) and grand multiparous 80(39.6%) clients. Majority of the clients were Christians 190(94.0%), married 192(95.0%) and had at least secondary school education 142(70.3%). Traders 56(27.7%), Civil servants 40(19.8%) and professionals 32(15.8%) constituted majority of the IUCD acceptors.

Table 1: Contraceptive choice of 1645 clients.

Type of contraceptive	No.	%
Intrauterine contraceptive device	202	12.3
Injectibles	847	51.5
Oral contraceptives	156	9.5
Natural family planning	20	1.2
Bilateral tubal ligation	36	2.2
Barrier method (condon)	384	23.3

Table 2: Socio-demographic characteristic of 202 contracontraceptive device acceptors.

Variable		No.	%
Age (years)	15-19	10	49.5
	20-24	28	13.9
	25-29	98	48.5
	30-34	50	24.8
	35-39	12	5.9
	≥40	4	1.9
Parity		2	1.0
	1-4	120	59.4
	≥ 5	80	39.6
Marital status			
Married		192	95.0
Single		4	2.0
Widowed		6	3.0
Religion			
Tradition		5	2.5
Christian		190	94.0
Muslim		7	3.5
Occupation			
Civil servant		40	19.8
Trader		56	27.7
Professional		32	15.8
Student		20	9.9
Artisan		28	13.7
Housewife		14	7.0
Farmer		9	4.5
Unemployed		3	1.5
Educational level			
No formal education		1	5.4
Primary education		49	24.3
Secondary education		102	50.5
Tertiary education		40	19.8

The various complications following IUCD insertion are shown in (Table 3). Lower abdominal pain 27(13.4%), abnormal vaginal discharge 22(10.9%) and heavy menstrual bleeding 18(8.9%) were the most common symptoms/complications, while expulsion of the device 4(2.0%) missing of the device 6(3.0%) were among the least common. There were no accidental pregnancies recorded in this study. All the IUCDs inserted were the Copper T 380A (Cu T 380A) variety.

Table 3: Common presenting symptoms and complication in 202 clients following IUCD insertion.

Symptoms/complications	No.	%
Lower abdominal pain	27	13.4%
Abnormal vaginal discharge	22	10.9%
Vulval/vaginal itching	15	7.4
Menorhagia (Heavy menstrual Bleeding)	18	8.9
Intermenstrual bleeding	2	1.0
Missing IUCD	6	3.0
Expulsion of the IUCD	4	2.0
Dysmenorrhoea	2	1.0
Dysuria	1	0.5

Table 4: Intrauterine contraceptive device care provider in 202 clients.

Care provider	No.	%
Doctor	120	59.4
Nurse	80	39.6
Chew	2	0.1

The care providers of IUCD are shown in (Table 4). Doctors 120(59.4%) were the major providers while Nurses 80(39.6%) inserted the remaining with Community Health Extension Workers 2(0.1%) provided the least.

Discussion

The results of this study reveal that the IUCD is the third most commonly accepted method of contraception in our center. This is at variant to the findings of Abasiattai et al. and Udigwe et al. [5] but higher than the findings in the UK and USA where less than 5% of clients accepted it probably due to overestimated health risks [16]. This could also be explained by lack of trained Medical staff in the rural areas as shown in this study where Community Health Extension Workers provided only 0.1% of the care.

In the study, acceptance of IUCD was highest among clients aged between 25-34 years (73.3%). This represents the peak period of their reproductive life. However, its acceptance was very low among teenagers. This may be due to the fact that the family planning clinics in our government hospitals are primarily directed toward mature females in stable relationships [4]. It may also be due to the existing cultural and religious restrictions on premarital sex and the general misconception that associates adolescent contraception with sexual promiscuity. Hence, generally, IUCDs may not be first choice contraceptives in this group of clients. This study also revealed that only 39.6% of grandmultiparous clients accepted IUCD This is at variant with studies done in this country that showed that majority of the IUCD acceptors were grandmultiparous [4,14]. This disagreement may be probably due to early marriage and increased awareness among multiparous women in this centre; on the need for family planning in the face of economic challenges. In an environment like ours where acceptance of sterilization due to cultural reasons is very low [5,17] the CuT380A whose pregnancy rates have been shown to be consistently below 1% and whose effectiveness rivals that of surgical sterilization [7], would be an excellent contraceptive option for these group of women.

The finding of a greater proportion of the acceptors being educated is in agreement with the observation and prediction by experts that well educated African couples are more likely to accept modern methods of contraception than the less educated ones [4]. Though majority of the clients (51.9%) did not have any complications, abdominal pain, and abnormal vaginal discharge were the most common complications recorded. This is similar to what obtains in other centers but in disagreement with the study done by Ezegwui et al. [14] where only 30% were asymptomatic. Majority of the intrauterine contraceptive device (59.4%) was inserted by doctors compared with the study by Ezegwui et al. where Nurses inserted 80% of the missing IUCD, while doctors inserted 15% [14]. The complication rate following IUCD insertions is dependent on the skill and experience of the health care provider who performed the insertions and the type of IUCD used. This was demonstrated in this study where majority of the clients had the intrauterine contraceptive Device inserted by doctors. The lack of accidental pregnancies in the study attests to the effectiveness of CuT380A as a method of contraception.

Conclusion

The prevalence of acceptors of IUCD in our setting is low and Acceptors were young, multiparous and educated women. Increasing awareness would improve utilization and training of more health personnel would help in reduce the attendant symptoms and complications and encouragement of grand multiparous women to accept IUCDs would increase acceptance and use.

Recommendations

IUCD is a safe and effective method of contraceptives. There is need for more awareness to improve uptake among women. Also training and retraining of health care providers on insertion of IUCDs will help to improve efficiency of IUCDs and reduce attendant complications.

Declarations

Authors contribution: Principal Author is C Nwaogwugwu, Study design and formation of methodology and Data was analyzed by AA Olaleye and J Egede, Manuscript writing by CI Ebere and B Olinya, and sample collection by C Nwaogwugwu, AA Olaleye, and B Olinya. Result and discussion were written by AA Olaleye, and J Egede.

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Ethical statement: Ethical approval to carry out this study was obtained from the Research and Ethic Committee of Alex Ekwueme Federal University Teaching Hospital, Abalkaliki, Ebonyi State on the 28th October, 2020.

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