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Utilization and discontinuation of contraceptive methods: the University of Calabar Teaching Hospital (UCTH) experience

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ABSTRACT

Background **Contraception has an important role to play in reducing the high rate of maternal morbidity and mortality in developing countries.**

Objective **The objective is to determine the prevalence rate, methods and reasons for discontinuation of contraceptive methods at UCTH, Calabar.**

Method **This was a retrospective study of all clients that utilised different forms of contraceptives at UCTH, Calabar from 1st January, 2009 to 31st December, 2013.**

Results **A total of 5,381 clients used various methods of contraception while 13,492 live births were recorded giving the prevalence rate of 39.9% of total live birth. Common methods were intrauterine contraceptive device (IUCD) 1,745(32.8%) and injectable contraceptives 1,268(23.8%). Most clients 1,876(35.2%) were graduates while 81(1.5%) had no formal education. A total of 535(10.1%) clients discontinued different family planning method commonly due to desire for pregnancy and side effects. IUCD had the highest discontinuation rate.**

Conclusion **The study revealed low prevalence rate of contraceptive use which was more among teenagers and illiterate women. The main reasons for discontinuation of different methods were desire for pregnancy, side effects and menopause. Creating more contraceptive awareness, improvement in contraceptive counselling and female education will help to improve contraceptive utilisation rate and reduce discontinuation rate.**

Keywords: *Contraceptive, pregnancy, discontinuation, family planning, Calabar*

INTRODUCTION

Birth control also known as contraception or fertility control are methods used to prevent pregnancy.[1,2] Birth control methods have been used since ancient times, but effective and safe methods only became available in the 20th century.[3] In the African context, culture and traditional practices were very strong in most societies which discouraged modern contraceptive methods and limitation of family size.[4] However, in the past two decades, most African countries have changed in favour of family planning programme.[4] Many couples use contraception to space their children or to limit the size of their family. Others desire to avoid childbearing because of the effects of pre-existing illness on the pregnancy such as severe diabetes or heart disease.[1-4] As a matter of public policy, some countries especially those that are less developed, promote contraception in an effort to curb undesired population growth.[5,6]

In Nigeria, the attitude of government has changed from a lukewarm attitude to a rather positive posture hence the inclusion of family planning as an integral component of the primary health care delivery system.[4,5,6] This development had let to

increase awareness and utilization of various methods of contraception by our women.

There are various methods of contraception ranging from progesterone only implants, injectable progesterone only method, injectable combined oestrogen and progesterone method, intrauterine contraceptive device, barrier methods, trans-dermal patch, spermicides, surgical sterilization, oral progesterone only pill to combine contraceptive pill.[4,7,8]

The current prevalence rate for Contraceptive use in Nigeria is approximately 15%[5] compared to over 50% worldwide and 60% in USA. In Africa contraceptive practice remains low and fertility, population growth, and unmet need for family planning are high. Unplanned pregnancy poses a major public health challenge in women of reproductive age, especially in developing countries. It has been estimated that of the 210 million pregnancies that occur annually worldwide, about 80 million (38%) are unplanned, and 46 million (22%) end in abortion. [5]

Those who do not use any contraceptive methods may lack access or face barriers such as lack of awareness, lack of access, cultural factors, and religion.[9] Some Christian denominations would not use any hormonal or related method.[10] Other barriers include opposition to use by partners or family members, fear of health risk and side effects of contraceptives.[11] Continued strong cultural preference for large families, large rural populations relying on subsistence farming and low levels of economic development are contributory. In addition, continued high rates of infant and child mortality have contributed to high fertility levels, because couples perceive the need for "extra insurance" births to make up for those who die young.[12]

Abortions is illegal in Nigeria (unless medically recommended to save a mother's life) and many abortions are carried out in an unsafe environment.[13,14] The consequences of these clandestine abortions are grave and can be life threatening, often leading to maternal death.[14-16] Unsafe abortions kill some 70,000 women worldwide annually[8] and accounts for 20%-40% of maternal deaths in Nigeria.[14-16] A low level of contraceptive use has been reported as a very common cause of unplanned pregnancy in Nigeria.[5,17,18] Furthermore contraceptive prevalence rate have correlated with maternal mortality as countries with low contraceptive prevalence rates are seen to have very high maternal mortality ratios. Nigeria ranks second highest in the number of maternal deaths in the world.[19,20] Research in Nigeria indicates that more than 60% of women with an unplanned pregnancy are not using any form of contraception. [21]

The use of contraception, as a means of regulating family size, is an essential ingredient of socio-economic development and a key element in the population strategies of most developing countries because it addressed important health problems.[4] Moreover the use of modern contraceptive methods translates into the prevention of unwanted pregnancy and subsequent abortions.

The importance of family planning lays in the fact that rapid growth in a population if not checked can only exacerbate the issue of poverty especially in countries like Nigeria where unemployment is already high or where food security is a major concern. Furthermore in stagnant economies, population growth inevitably boosts the number of poor people – as has happened in sub-Saharan Africa where the estimated number of individuals living on less than a dollar a day rose from 164 million in 1981 to 316 million in 2001.[22,23] Fertility decline is associated with high life expectancy.[24] Contraception results in wider intervals between birth, preventing the risk of fetal death, low birth weight, prematurity, and small for gestational age.[25,26]

The aim of this study is to determine the utilisation rate of contraceptive, the methods utilised and factors responsible for discontinuation. This will help to suggest ways to improve in contraceptive utilisation and reduce discontinuation rate.

MATERIALS AND METHODS

The records of the clients who used various methods of contraceptives from 1st January, 2009 to 31st December, 2013 at the family planning unit of the hospital were reviewed. The records of clients were retrieved for study. The total numbers of deliveries (live births) in the department were

obtained from labour ward records. The demographic data of these women were analyzed. The parameters used for the analysis were the age, the educational status, parity and marital status of users. Other parameters were the reasons for using family planning method and reasons for discontinuation of a particular family planning method. Out of the 5,381 clients who used various methods of contraception over the study period, 5,323 case files were available for analysis.

Data analysis was done using Epi info version 3.3.2 software. Data representation was done using frequencies and percentages.

RESULTS

This study revealed that a total of 5,381 client used various methods of contraception at the family planning unit of the Maternity Annex of the University of Calabar Teaching hospital, Calabar over the five year period giving a mean acceptor rate of 1,076.2/annum. These methods included intrauterine contraceptive device (IUCD), injectables (noristerat and depo-provera), contraceptive implants, intrauterine contraceptive device, oral contraceptives, tubal sterilization and condom. A total of 13,492 live births were recorded over the study period. The prevalence rate of contraceptive use was 39.9% of total live birth. The mean age was 33.8 ± 7.8years.

The commonest contraceptive method utilised was intrauterine contraceptive device 1,745(32.8%), followed by injectable contraceptive 1,268(23.8%) while the least method used was bilateral tubal ligation 71(1.3%) as in **Table 1**.

Table 1 Yearly distribution of various contraceptive method utilised over the study period.

Contraceptive methods	Yearly distribution					Total	Percentage
	2009	2010	2011	2012	2013		
IUCD	218	10	578	406	383	1745	32.8
Injectables	64	50	396	380	378	1268	23.8
Pills	12	7	279	342	457	1097	21.5
Implants	96	111	347	217	262	1033	20.5
BT L	6	8	20	20	17	71	1.3
Condom	21	18	16	25	29	109	2
TOTAL	**417**	**354**	**1636**	**1390**	**1526**	**5323**	**100**

IUCD- Intrauterine contraceptive device
BTL- Bilateral tubal ligation

The majority of the clients 1,550 (29.1%) were between 30-34 years of age while the least 100 (1.9%) were teenagers as shown in **Table 2**. The parity distribution of the clients revealed that 12 (0.2%) were nullipara while 972 (18.3%) were grand multipara. Most of the client 1,876 (35.2%) were graduates while 81 (1.5%) had no formal education. Only 336 (6.3%) of the acceptors were single women.

Table 3 shows that the commonest reason for using contraceptives was for child spacing 73.8% and followed by completed family size 24.3%.

Table 2 Socio-Demographic characteristics of clients that used various contraceptive methods (n=5,325)

Variables	Frequency	Percentage
Age group (years)		
< 19	100	1.9
20-24	220	4.2
25-29	1200	22.5
30-34	1550	29.1
35-39	1250	23.5
>40	1003	18.8
Parity		
0	12	0.2
1	30	0.6
2	1102	20.7
3	1209	22.7
4	1998	37.5
>5	972	18.3
Level of education		
No formal Education	81	1.5
Primary Education	1646	30.9
Secondary Education	1720	32.3
Tertiary Education	1876	35.2
Marital status		
Married	4987	93.7
Single	336	6.3

Table 3 The reasons for utilising various family planning methods. (n=5,323)

Reasons	Number	Percentage (%)
Spacing/defer pregnancy	3930	73.8
Completed family size	1292	24.3
Physicians advice	53	1.0
Economic reasons	17	0.3
Health reasons	29	0.56
Not certain	2	0.04

Table 4 shows that 535(10.1%) of the clients discontinued different forms of family planning method for various reasons and intrauterine contraceptive device (IUCD) had the highest discontinuation rate 43.9%.

Table 4 Various reasons for discontinuing different contraceptive methods (n=535)

Contraceptive methods	Yearly distribution					Total	Percentage
	Desire for pregnancy	Side effects	Menopause	Pregnancy	Not Stated		
IUCD	129	103	3	0	0	235	43.9
Pills	82	39	0	4	2	127	2.8
In	57	37	0	2	1	97	18.1
Implants	41	7	11	0	0	59	11.0
Condom	0	0	0	17	0	17	3.2

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DISCUSSION

The importance of family planning cannot be overemphasized in order to space children, limit the size of the family, curb undesired population growth and avoid childbearing among women with pre-existing illness to reduce maternal morbidity and mortality.[5,6] The prevalence rate of contraceptive use of 39.9% of total live birth in this study is low compared to 75% and 84 in Northern America and Northern Europe respectively.[4] This relative low acceptance/prevalence rate is due to the fact that family planning is still a controversial issue in Nigeria as a result of religious/cultural belief. The use of family planning to control birth/population is hardly accepted by some religious groups.[6] Intrauterine contraceptive device and injectables were the commonest methods in this study and the least method of contraception was bilateral tubal ligation.

This finding was similar to the observation of some authors in Nigeria.[10,20,21] Female sterilization by bilateral tubal ligation is not a common or acceptable contraceptive choice in Nigeria. However, this method is commonly used worldwide, especially in developed countries and in some developing countries in Asia and South America.[27] Many factors can influence decision-making about sterilization in Nigeria, including religion, ignorance, and superstition based on ancient beliefs, even among more literate members of the community.[5] The reverse is the case in UK where oral pills, bilateral tubal ligation were the most common. The contribution of specific methods to overall contraceptive use also varies in different countries. In Bangladesh, 43% of contraceptive users rely on the pill; In India the corresponding figure is only 4% and sterilization accounts for 75% of all use. In Egypt, 61% of users of contraception have an intrauterine device fitted.[28]

The majority 1,550(29.1%) of clients were between 30-34 years of age while the least 100(1.9%) were the teenagers. This signifies that only a section of the population utilizes contraceptives considering the fact that contraceptive use is very low among teenagers. This has not addressed the target to reduce the number of pregnancies in women less than 18 years of age. The age range of 25-39 years accounted for 4000(75.0%). This is perhaps a reflection of the most fertility period and the facts that most Nigerian women get married at this age and hence they come out openly seeking for family planning.

A total of 6.3% of clients were single women, this may be due to the fact that most cultures consider extra-marital sex as a taboo and thus do not encourage the use of contraceptives by single women.[19] Most of the clients (98.5%) had at least primary education, this was in keeping with the findings of some authors in sub-Saharan Africa.[10,20] Though the contraceptive utilisation was high in reproductive age women in this study, especially among the literate in Calabar, it has not translated to an improvement in maternal mortality rate and incidence of unplanned pregnancy and unsafe abortion which continues to be high due to poverty and restrictive abortion law.[29]

The main reason for seeking family planning in this study was for child spacing (73.8%). Most of the contraceptive users in this study did so for child spacing rather than limitation of family size which signifies intent to possible abandonment of family planning later. This is unfortunate and reflects on the cultural belief of wanting more children irrespective of the level of income. This also is reflected in the very low percentage of clients (1.3%) willing to utilize a permanent method of contraception and high preference (32.8%) for intrauterine contraceptive device which could be easily reversed.

No vasectomy was done over the five year period. Although the procedure is simple, safe, and effective, it is not readily accepted as a method of fertility control in Nigeria. Male sterilization or vasectomy is a rarity among Nigerian men. A study in Ibadan, Nigeria reported 2 cases of vasectomy over a 30 year period.[30] This low incidence has been attributed to male attitudes, whereby men are perceived to be more in proving their virility than in family planning.

The major reasons for discontinuation of the chosen contraceptive method were desire for pregnancy and side effects. This was similar to the study in Sokoto North West Nigeria[17] and Lagos, Nigeria. [20] A study in Pakistan also showed that majority (63.48%) of the women discontinued contraceptive methods because they wanted to get

pregnant.[31] IUCD and contraceptive pills had the highest discontinuation rate in this study. This may be because IUCD was the commonest contraceptive utilized in our family planning clinic. This finding was in contrast to the finding in French Population were IUCD had the lowest discontinuation rate.[32] Also, a study in New Zealand showed that more women discontinued injectable depot medroxyprogesterone acetate (DMPA) than other contraceptive methods.[33] These findings showed great differences in the discontinuation rates by methods of contraception. Factors such as clients preference for contraceptive method, experience of the provider, knowledge and counselling on the side effects could have contributed to the differences observed in different regions.

In conclusion, the prevalence rate of contraceptive use to control family size and prevent unwanted pregnancies in this study increased over the study period but still remained lower than the rates in developed countries. There was low rate of contraceptive use among teenagers and illiterate women. The commonest methods were IUCD, injectable contraceptives, oral contraceptive pills and implants. The reasons for discontinuation of different methods were desire for pregnancy, side effects, menopause and pregnancy. There is need to create more contraceptive awareness and improve on contraceptive counselling skills so that the clients will be aware of the side effects of the selected method. There is need to involve religious and traditional leaders in creating awareness on this subject and introduce reproductive health education in schools, religious gatherings, electronic and print media. Education of the girl child should be pursued with vigour while cultural and traditional practices that undermine the development of women should be discouraged. These will help to improve contraceptive utilisation rate and reduce discontinuation rate.

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