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Contraceptive Choices amongst Antenatal Care Patients in a Tertiary Health Centre in Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

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ABSTRACT

Background to Study: Maternal mortality and morbidity are very high in sub-Saharan Africa as in most developing countries, Nigeria inclusive. There have been concerted efforts by Governments of these countries, Non-Governmental Organisations, International and World bodies on how to solve this problem. One of the worth able strategies employed to solve the issue of maternal mortality is to prevent unintended pregnancies, unsafe abortions, space births, plan family sizes through the use of modern contraceptive methods for women in their reproductive age. However, maternal mortality remains high in Nigeria because of the low prevalence of contraceptive patronage. We, the authors of this study decided to test the prevalence of contraceptive patronage amongst our antenatal patients and compare our results nationally and globally.
Objective: To determine the pattern of contraceptive choices among antenatal patients attending the Niger Delta University Teaching Hospital, Okolobiri, Bayelsa State, South-South Nigeria.
Methodology: This was a descriptive cross sectional study conducted at the Niger Delta University Teaching Hospital, Okolobiri, Bayelsa state, South-South Nigeria, between October 2014 to January 2015. It consisted of a set of structured, pretested questionnaires that were administered to consecutive antenatal attendees.

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Results: Fifty-one (57.3%) of subjects in the study have used contraceptives in the past. The most commonly used modern contraceptive method among the study population was the male condom – 25 (28.1%). Injectables were used by 12 (13.5%) of those who have used contraceptives before the advent of present pregnancy. Information on contraception- Seventy three (82%) of respondents learnt of family planning services in the hospital through Doctors and Nurses.
Conclusion: Previous contraceptive usage before the pregnancy by the study group was encouraging. However more advocacies by contraceptive providers are needed in the areas of emergency contraception and long term contraceptive methods for increase uptake.

Keywords: Contraceptive usage; long term and short term contraception; contraceptive use discontinuation; antenatal care.

1. INTRODUCTION

Contraception is the use of drugs, devices or surgical means to prevent, delay or terminate the reproductive process. Mankind has used contraceptives for centuries [1] and they have gone through a lot of evolutionary changes over the years to produce the current modern contraceptive methods with little or no side effects [1,2].

The benefits of contraceptive usage are overwhelming. It improves the health status of the woman through the prevention of unwanted pregnancy and unsafe abortions [3]. Modern contraceptive methods confers on the user, non-contraceptive benefits like prevention and treatment of dysmenorrhoea, menorrhagia, perimenopausal and premenopausal symptoms. It also reduces hysterectomy rates from uncontrollable bleeding resulting from menstrual disorders [2]. Use of contraceptives means couples can control their family size, have fewer mouths to feed and improve the family economic status and provide for children education.

Nigeria has a high fertility rate of 5.5 children/ woman in her reproductive years (15-49 years), [4]. Nigeria has one of the lowest contraceptive prevalence in the world. Only about 15% of women in their child bearing years embrace family planning in Nigeria [4]. Nigeria contributes 10% [5,6] of world annual 20 million abortion cases [3,5,6]. More than one-fifth (20.2%) of all Nigerian women aged 15–49 years have an unmet need for effective contraception—that is, they are able to become pregnant, they are sexually active, neither do they want a child so soon or ever, yet they are not using any modern contraceptive method. This is an indicator that women may not be able to plan their desired family size [7,8]. A minority of them [5%] are using traditional methods, which have high failure rates [5].

Nigeria is the most populous nation in Africa with a total population of 173.6 million in 2013 [8a], an annual population growth rate of 2.52% in 2011 [8b] and a crude birth rate of 30.9 per 1,000 people in 2010 [8c]. With these statistics, Nigeria has a huge need for contraceptive patronage. It is only improvement in contraceptive prevalence that can reduce Nigerian current maternal mortality of 545 deaths per 100,000 births and meet the Millennium Development Goals of 75 % reduction in maternal mortality by 2015 [9,10,11]. Nigeria should adopt and practice the recommendations of 'The Programme of Action of the 1994 International Conference on Population and Development' which urged governments and other relevant organizations "to deal with the health impact of unsafe abortion as a major public health concern and to reduce the abortion rate through expanded and improved family-planning services [12].

With this poor contraceptive patronage in Nigeria, we at the Niger Delta University Teaching Hospital, Okolobiri decided to use our antenatal patients to see the degree of contraceptive patronage in the past. To determine the pattern of contraceptive choice before the current pregnancy. We also decided to use our antenatal mothers for this study because the antenatal period offers a great opportunity where women of the reproductive age who at one point in time would likely require a modern contraceptive method are gathered. Information, messages and programmes on family planning can easily be passed on to this group of women during antenatal education programmes.

2. METHODOLOGY

This was a prospective descriptive cross sectional study of women attending antenatal clinic of the Department of Obstetrics and Gynaecology of the Niger Delta University

Teaching Hospital Okolobirii, Southern Nigeria. This study was conducted between October 2014 and January 2015. It consisted of a set of structured questionnaires that were administered to consecutive antenatal attendees. The questionnaires were pretested on 15 antenatal mothers and corrections were made before they were formally administered to the target population of pregnant women. Mother's consent was sought and obtained before the questionnaires were administered to them.

This study was conducted at Okolobiri in Bayelsa state, Southern Nigeria. Bayelsa State is sandwiched between Rivers and Delta states in the heart of the Niger Delta. The Niger Delta Teaching Hospital is a tertiary Institution which besides teaching and research caters for the health needs of people from Bayelsa, Rivers, Delta and Imo states.

The sample size was derived as follows from the target population;

Contraceptive prevalence rate of 12.5% in Federal Medical Centre, Yenagoa, Bayelsa state, Nigeria was used. Precision (i.e. margin of sampling error) tolerated was set at 5%, at 95% confidence interval, using the formula for cross sectional study.

$$n = pq / (e/1.96)^2$$

Where

n = sample size
P = prevalence rate = 12.5%
q = 100 – p = 100 – 12.5 = 87.5%
e = margin of sampling error tolerated at 95% confidence interval = 5%

Hence,

$$n = 12.5 \text{ X } 87.5 / (5/1.96)^2$$
$$n = 168$$

Adjusting for an attrition or non-compliance rate of 10%

Hence, 10% attrition = 10/100 X 196 = 16.8

Thus, the adjusted sample size = 168 + 16.8 = 184.9

Working sample size ≈ 185 subjects

A total of 185 self-administered structured questionnaires were distributed to subjects. One hundred and twelve (112) were returned and additional 23 questionnaires were removed from the analysis because of incomplete filling. Hence, the respondent rate of this study was 48.1% (89 subjects).

All pregnant women attending antenatal care at the Niger Delta University Teaching Hospital, Okolobiri were eligible except hospital personnel.

Antenatal patients who met the criteria were selected for the study.

The data collected were coded and entered into SPSS Version 20 and analysed.

A total of 89 antenatal mothers were enrolled for this study.

3. RESULTS

The age range of the women in the study was between 20-45 years with a mean age of 29.11 years ±4.96 and a median of 29 years. Forty-three (48.3%) have secondary education while 36 (40.4%) had tertiary education. Fifty-six subjects (62.9%) were of the Pentecostal faith and 13 (14.6) were Catholics. Nine subjects (10.1%) were single and 80 (89.9%) were married. Seventy-seven (86.5%) of subjects were in a monogamous marriage while 12 (13.5%) were in a polygamous marriage. The mean Parity was 1.66 children / woman in the study, with a range of 1-8 children/ woman. See Table 1 for demographic characteristics of respondents.

Information on contraception- Seventy three (82%) of respondents learnt of family planning services in the hospital through Doctors and Nurses, 13 (14.6%) heard through television and those who heard through family were 2 (2.3%). See Table 2 for source of information on contraception.

Fifty-one (57.3%) of subjects in the study have used contraceptives in the past. The most commonly used modern contraceptive method among the study population was the male condom – 25 (28.1%). Injectables were used by 12 (13.5%) of those who have used contraceptives before the advent of present pregnancy.

See Table 2 for pattern of contraceptive usage before the advent of present pregnancy.

Twenty two subjects (24.4%) said the contraceptive method used by them before the pregnancy was care provider dependent. The

most commonly used modern contraceptive method was the male condom-25 (28.1%) used this method, emergency contraception 2 (2.3%).

The most common reason for discontinuation was to resume child bearing- 20 respondents (22.5%). There was no response from 64 (71.9%) patients on this issue. Nine (10.1%) were lost to follow up while 11 (12.4%) clients kept their appointments until they discontinued because they want to become pregnant. There was no response from 64 (71.9%) clients. Nineteen respondents (21.3%) subjects were certified with the family planning serves at the Niger Delta University Teaching Hospital.

See Table 2 for reasons to discontinuation of contraceptive use.

Table 1. Demographic characteristics of subjects in the study

Variables	Frequency	Percent
Educational status		
No former education	1	1.1
Primary education	9	10.1
Secondary education	43	48.3
Tertiary education	36	40.5
Total	89	100.0
Religion		
Catholic	13	14.6
Anglican (Protestants)	5	5.7
Pentecostal	56	62.9
Jehovah's' witness	6	6.7
Islam	2	2.3
Atheist	1	1.1
Orthodox Christians	6	6.7
Total	89	100.0
Marital status		
Single	9	10.1
Married	80	89.9
Total	89	100.0
Occupation		
Trading	20	22.5
Civil servant	18	20.3
House wife	6	6.7
Business	17	19.1
Hair dresser	1	1.1
Others	21	23.6
Total	89	100.0
Monogamous or polygamous marriage?		
Monogamous	77	86.5
Polygamous	12	13.5
Total	89	100.0
Parity		
Primigravidae	29	32.6
Para 1	24	27.0
Para 2	10	11.2
Para 3	11	12.3
Para 4	8	9.0
≥ Para 5	7	7.9
Total	89	100.0

Table 2. Sources of information, pattern of usage, reasons for discontinuation of contraceptives

Source of information for family planning?	Frequency	Percent
Television/Radio	13	14.6
Newspaper/Magazine	1	1.1
Family	2	2.3
Doctors/Nurses	73	82.0
Total	89	100.0
Pattern of contraceptive usage		
Injectables	12	13.5
Male condom	25	28.1
Daily pill	6	6.7
IUCD	1	1.1
Natural methods	1	1.1
Skin implant	4	4.5
Emergency contraception	2	2.3
None of the above	38	42.7
Total	89	100.0
Reasons for discontinuing contraceptive usage		
No response	64	71.9
To resume child bearing	20	22.5
Husband disapproval	1	1.1
Lack of compliance	3	3..4
Pills failure	1	1.1
Total	89	100.0

4. DISCUSSION

The mean age of the study group was 29.36 years ±4.96 and a median of 29 years. This means 50% of subjects in the study have about 20 years or more of reproductive life (15-49 years) and may at one point in time require a modern contraceptive method to control their family size. However, the unmet need for contraception is very high in sub-Saharan Africa and in some developing countries, Nigeria inclusive [3,13]. As teenage girls transits to adulthood and reproductive life in these regions, they had little or no sex education. The little sex education they have from parents tends to reinforce negative perceptions about modern contraceptive use [14,15].

An estimated 222 million women have unmet need for contraception in developing countries. In surveys conducted between 2000-2005, sub-Saharan Africa has the highest unmet need for contraception of 24%, followed by Latin America 12%, South and South East Asia 11%, North Africa and West Asia 10% [16,17]. Various reasons have been adduced for non-use of contraceptions and these vary globally from one region to the other and within nations. Some of the reasons given for the opposition to the use of contraception include infrequent sex, concerns relating to health issues and safety, No ready access to services on information and counselling, factors which determine contraceptive choices [16]. In Nigeria, the unmet need for contraception is high at 20% [18]. This is an indicator that most families in Nigeria would not be able to control the size of family they desire. In the 2009 Nigerian National Demographic and Health Survey, opposition to use and wanting more children were the main determinants of contraceptive use. Women also expressed opposition to contraceptive use by themselves, husbands, friends, costs and the influence of their religion [18].

In this study, the main reason for stoppage of contraception was to resume child bearing.

The literacy level of respondents was high as 48.3% had secondary and 36% had tertiary education respectively. High level of education may come with women empowerment, better paid jobs and greater degree of uptake of contraceptive programmes, advertisements and ready access to contraception and usage. The educational status of subjects in the study may have influenced their degree of contraceptive uptake of 57.3% as against the national average of 15% [4]. A study carried out on Bankers in South West Nigeria with high degree of

educational attainment also showed corresponding degrees of contraceptive awareness and uptake of 74% [19].

However, regarding the high literacy level among the study group; much higher contraceptive usage would have been expected. This pattern of low contraceptive patronage among highly educated women may reflect the assertions of Verma [20] who said 'The conventional school and college education might prepare young women for certain careers but not for parenthood'. These may be proved to be true because, no matter the education of the woman, they stick strongly to mothers' advice, culture and even religion, some of the determinants and barriers to modern contraceptive patronage [21,22].

Ten percent (10%) or 1:10 of study subjects were single mothers. A highly educated group of women as in the study would be more likely to delay marriage because of their education but are also likely to be more exposed to premarital sex, single motherhood and unintended pregnancies [3,5,6]. With single parenthood comes more responsibilities -another mouth to feed, clothing, child education and housing, These responsibilities are difficult to bear especially in a country like Nigeria where being educated does not equate with empowerment with the high rate of unemployment prevalent in the country. Women would therefore require contraception either to delay or space their families. However, it must be stressed that the benefits of education for the girl child outweighs these little disadvantages of single parenthood.

The sources of information on contraceptive methods were hospital based as 82% of respondents heard of contraceptive methods from Nurses and Doctors. This is no surprising as the study group were all pregnant women and may have benefited from antenatal clinic health education lectures.

From the results, the male condom a short term contraceptive method was the most commonly used by subjects in the study. Twenty-five (28-1%) who patronized family planning methods before the current pregnancy used the male condom. This was similar to works done in Oshogbo metropolis, Osun state, Nigeria where majority of the study group used the male condom [23]. Though the male condom has the advantage of protecting the individual from sexually transmitted diseases, it has the highest failure rate or unintended pregnancies per 100 women Years (Pearl Index) amongst modern contraceptive methods. With typical use, 18% of women experience an unintended pregnancy within the first year of use and 2% failure rate with perfect use. To use the male condom effectively, the couples need to be motivated and cautious because it is intercourse dependent. The problem with the condom is that perfect use is often difficult, and if accidents occur, recourse to emergency contraception has to be made and the use of emergency contraception amongst the group as shown by the results of this study was low [24].

In general, 30.4% of respondents used short term contraceptive methods including the male condom and emergency contraception and 26.9% used the long term contraceptives. The percentage of emergency contraceptive use of 2.6% was low among the 51% who had used contraception previously. This was similar to studies in Port-Harcourt where use of emergency contraception was also low [25]. Out of 25% subjects in the study group who responded to the question 'if they became pregnant while on the contraceptive methods, three respondents said yes giving a Pearl index of 3 which was a high contraceptive failure rate.

5. CONCLUSION

While contraceptive usage by the study group was encouraging, which is much higher than the average contraceptive prevalence in the country, a closer analysis of the results showed that the male condom was the most commonly used. The male condom is not only a short term contraception, it needs motivation for use. While the condom prevents against sexually transmitted diseases, providers of modern contraceptive methods in Nigeria still need a lot of advocacy on other long term contraceptive methods so that the benefits of contraceptive use can be realisable.

ETHICAL APPROVAL

This is to confirm that the consent of the subjects used for the study was sought before the questionnaires were administered to them. Those who refused to give consent were excluded. The Niger Delta University Teaching Hospital Ethical Committee Approval was also obtained.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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QUESTIONAIRE

Contraceptive choices amongst pregnant women attending antenatal care at the Niger Delta University Teaching Hospital, Okolobiri, Nigeria- questionaire.

1. Age (in years)……

BIODATA

2. Educational status

(a) No formal education (b) Primary (c) Secondary (d) Tertiary

3. Religion

(a) Catholic (b) Anglican (Protestants) (c) Pentecostal (d) Jehovah's Witness (e) Islam (f) Atheist (g) Orthodox Christians.

4. Marital status

(a) Single (b) Married (c) Separate/Divorced (d) Widow

5. Occupation

(a) Trading (b) Civil servant (c) House wife (d) Teaching (e) Business (f) Others

6. Monogamous or polygamous marriage

(a) Monogamous (b) Polygamous

7. Parity

(a) Primigravida (b) Para 1 (c) Para 2 (d) Para3 (e) Para 4 (f) Para ≥ 5

8. Contracepttive choice

(a) Male condom (b) Barrier method (c) Daily pill (d) Injectables 2-3 monthly (e) Skin implants (f) IUCD (Coil). (g) Emergency contraception- Postinor) (h) Traditional methods

9. Date of commencement……

10. Date of discontinuation…….

11. Contraceptive still in use?

(a) Yes (b) No

12. Why did you discontinue?

(a) To resume child bearing (b) Husband disapproval (c) Lack of compliance (d) Husband's disapproval (c) Lack of compliance (d) Pills failure (e) No response

13. Source of information on contraceptives

(a) Television/Radio (b) Newspapers/Magazines (c) Family (d) Doctors/Nurses

14. Your contraceptive choice requires Provider's assistance

15. Your contraceptive choice does not require Providers's assistance.

16. Use require a surgical procedure (a) Yes (b) No

17. Any complication arising from the use of contraceptive method?

(a) Yes (b) No

18. Patient lost to follow-up (a) Yes (b) No

19. Stoppage because of cost (a) Yes (b) No

20. Satisfaction with contraceptive method (a) Yes (b) No

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