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Knowledge of Modern Contraceptives Methods and Its Uptake Among Female Students of a Tertiary Educational Institution in South- South Nigeria

O. J. Agbo, A. O. Eguvbe, P. W. Alabra, D. O. Alagoa

ABSTRACT

Background: The use of modern forms of contraception can significantly improve women reproductive health. The rate of sexually transmitted disease, unwanted pregnancies and maternal morbidity and mortality can be significantly reduced following the use of modern forms of contraception. However, there is paucity of studies on the place of modern forms of contraception in improving women reproductive health in Yenagoa.

Objective: This study aimed to access the knowledge of modern forms of contraceptive methods and its uptake among female students of Federal University Otueke, Bayelsa State.

Methods: This was a descriptive cross-sectional study that was conducted among the female students of Federal University Otueke Bayelsa State. To elicit information about their knowledge of modern forms of contraceptives methods and its uptake. A structured interviewer administered questionnaire was used to obtain required information for the study from a total of 424 students.

Results: A total of 424 female undergraduates students of the Federal University Otueke were enrolled for the study. The mean age group of the participants was 20.9±3.2 years. The study showed that most of responds have good knowledge of contraceptives (97.4 %). The awareness of family planning was 96.7%. The study showed that age was found to influence the awareness of contraceptives. (x2=11.8;df=3;p<0.05). Most of the respondents had used oral contraceptive pills 146 (34.4%); followed by those that had used Condom 138 (32.5%).

Conclusion: Our study showed that the respondents demonstrated a high level of knowledge and awareness of family planning. However, it is worrisome to note that the uptake of modern forms of contraceptives was low. The importance of improving the uptake of these forms of contraceptives cannot be over-emphasized, especially in our societies where the protection of the reproductive health of young women is paramount.

Keywords: contraceptives, condoms, family planning.

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I. Introduction

The place of modern forms of contraception in the reduction of sexually transmitted disease, unwanted pregnancies and maternal morbidity and mortality world-wide has been consistently and persistently documented [1]. According to the world health organization (WHO) about 214 million women of reproductive age in developing countries who want to avoid pregnancy are not using a modern form of contraception2. It is estimated that providing contraception to these women will prevent 36 million abortions, 70 million maternal deaths and 52 million unwanted pregnancies [2].

In Nigeria about 610,000 abortions take place every year and it account for about 20-40% of maternal mortality [3]. Although unwanted pregnancy in Nigeria occurs in every age group, it tends to be very common in the adolescent age group [4].

A study conducted in South Africa showed that the prevalence of unwanted pregnancies was 71% [5] in a similar study in Ghana the prevalence was 40% [6] The prevalence of unwanted in Britain was 16.2% and in the United State of America the prevalence was 22%. [7], [8]. The disparity in prevalence may be due to the high uptake of contraceptives in the developed societies. The recent World contraceptive use conducted by the United Nations showed that the uptake of modern forms of contraception is higher in the developed world. The prevalence for modern forms of contraception in Nigeria was 23% [9], in Senegal it was 26.2% and 11.7% in Sudan [10] The study showed that the uptake of modern forms of contraception was 71.8 % in China, 72.7% in France and 67.7% in the United State of

America it is 75.9% [10].

There are barriers to the uptake of modern forms of contraception in developing world. These include lack of knowledge and awareness of modern forms of contraception, deep rooted socio-cultural and religious barriers. Others include fear of side effects, partner disapproval and misconceptions [1], [2], [3], [5].

The elimination of these barriers to the uptake of modern forms of contraception will significantly reduce the rate of sexually transmitted diseases, unwanted pregnancies and its sequelae in developing societies. Improving access to family planning services so that women of reproductive health can have access to these products can go a long way in the elimination of barrier to the uptake. The use of community heads and religious leaders in our societies can reduced the misconceptions and deep rooted socio-cultural barriers to the use of contraceptions [1]-[5]. In a study in Ile-Ife, Nigeria it was found that there was a higher uptake of contraceptives among women who had exposure to family planning messages from religious leaders relative to those with no exposure [11]. In a study conducted in Senegal there was similar outcome [12]. The ability of a women to decide on the number, spacing and timing of pregnancies is dependent on whether she is empowered or not. This fact is supported by a study in India that showed that the use of modern forms of contraceptives is influenced by women decision making power and their autonomy within the household, perhaps is the most important factor affecting contraceptives use [13]. The elimination of barriers to the uptake of modern forms of contraception cannot be effectively achieved unless the Governments of various countries in the Sub-Saharan Africa are involved. These can be achieved by legislature that will ensure the availability, affordability and accessibility of the various forms of modern contraception.

Young women are at the greatest risk of complications like sexually transmitted diseases, unwanted pregnancies and maternal mortality. These complications are commonly seen in our societies with low contraceptive uptake. Hence, the importance of these study which aimed to access the knowledge and uptake of modern forms of contraceptives amongst females in a Tertiary Institution.

II. Methodology

A. Study Area

This study was conducted at the Federal University Otueke, a semi-urban multi –culture society in Ogbia Local Government area of Bayelsa state. The University has 5 faculties and 29 departments with undergraduate students' population of over 3500. The female students' population is estimated to be about 2100. A total of 424 female students took part in the study. The approval for the study was obtained from the ethical committee of the institution.

B. Study Design

This was a descriptive cross-sectional study. Questionnaires were administered to the eligible respondents in the study to obtain their socio-demographic characteristics and to assess the level of their knowledge, awareness, and uptake of modern forms of contraceptives.

C. Sample Size Determination

One proportion sampling size with population greater than 10 000:

$$n = Z^2 pq/d^2$$

where

n = the minimum sample size.

z = standard normal deviate, set at 1.96 corresponding to 95% significance level.

P = 50% proportion of characteristics (attributes) in the population because there are no reports of previous studies on this in this area.

q = 1 – p.

q = 1 – 0.5 = 0.5.

d = precision or degree of accuracy i.e. acceptable margin of sample error set at 5% or 0.05.

Substituting the above figures in the formula, the desired sample size, n, for the study will be:

$$n = (1.96)^2 \times 0.5 \times 0.5/ 0.05^2 = 385$$

This therefore means that a minimum sample size of 385 is required for the study to be valid.

Adjusting by 10% for non-response n = 424 is now the sample size for the study.

D. Statistical Analysis

Consent was obtained from each participant in the study following a detailed explanation of what the study entails, as well as assuring them of confidentiality of the information to be given. The questionnaires were then self-administered to a total of 424 undergraduate students. The respondents were only guided in their responses when they voluntarily called for assistance.

The data obtained were analyzed using SPSS version 23. Test of association were done using Chi square statistics at 95% confidence levels.

The socio-demographic characteristics of respondents are shown on Table 1. The mean age of respondents was 20.9 ± 3.2 years. The predominant age group was 15 - 20 years 162 (49.1%); followed closely by age group 21 – 25 years 156 (47.3%). Majority 168 (40.7%) of the respondents were of the Ijaw ethnicity; followed by the Igbo ethnicity 115 (27.8%). The respondents were predominantly Christians 407 (97.1%), with denominations more of Pentecostal 231 (55.1%), followed by Catholics 102 (24.3%). All the respondents (100%) were students but 17 (4.0%) were employed.

TABLE 1: Socio-demographic characteristics of respondents

Variable	Frequency	Percentage
Age in years (n = 330)		
15 – 20	162	49.1
21 – 25	156	47.3
26 – 30	6	1.8
31 – 35	6	1.8
Ethnicity (n = 413)		

Ijaw	168	40.7
Igbo	115	27.8
Hausa	12	2.9
Yoruba	35	8.5
Urhobo	47	11.4
Edo	12	2.9
Others	24	5.8
Marital Status (n = 424)		
Single	407	96.0
Married	11	2.6
Separated	6	1.4
Religion (n = 419)		
Christianity	407	97.1
Islam	12	2.9
Christian denominations (n = 407)		
Catholic	102	24.3
Pentecostal	231	55.1
Anglican	57	13.6
Others	17	4.1
If currently employed (n = 424)		
Yes	17	4.0
Student	407	96.0

Table 2 shows that most of the respondents were awareness of family planning 413 (97.4%). It also reports that most of the respondents knew what family planning means 413 (97.4%).

TABLE 2: KNOWLEDGE OF FAMILY PLANNING

Variable	Frequency (%)	
	Yes	No
Do you know about family planning (n=424)	413 (97.4)	0 (0)
If yes, what is family planning (n = 424)		
It is a means of termination of pregnancy	0 (0)	
It is a means of controlling the spacing and timing of birth	413 (97.4)	
It is a way of making a woman infertile	0(0)	
Is a means of safe delivery	0 (0)	
Others	11 (2.6)	
How did you know about family planning (n = 407)		
Doctors	24 (5.9)	
Nurses	24 (5.9)	
Other health workers	48 (11.8)	
Family members	64 (15.7)	
Friends	53 (13.0)	
Media	93 (22.9)	
Other	101 (24.8)	
Methods of family planning you know (n = 424)		
Condom	324 (76.4)	
Pill	292 (68.9)	
Injectable	194 (45.8)	
IUCD	123 (29.0)	
Quinine	18 (4.2)	
Withdrawal method	204 (48.1)	
Breast feeding	6 (1.4)	
Stout	0 (0)	
Periodic abstinence	164 (38.7)	
Abortion	75 (17.7)	

Majority of the respondents knew about family planning from other sources 100 (24.8%). It was followed by those that knew from media sources 93 (22.9%). The majority of respondents knew condom 324 (76.4%) as a method of family planning; it was followed closely by the pill 292 (68.9%).

The Table 3 shows that age was found to influence awareness of family planning ($x^2 = 11.8$; df = 3; $p < 0.05$). Majority of the respondents who were Christians were aware of family planning 396 (95.2%) and only 12 (2.9%) of the respondents of the Islamic religion was aware of family planning. This difference was not found to be statistically significant ($x^2 = 1.13$; df = 1; $P > 0.05$).

Awareness of family planning was 168 (40.7%) amongst respondents of the Ijaw ethnic group; it was followed by the Igbo ethnic group with 104 (25.2%). The other ethnic groups had a lower level of awareness of family planning. Ethnic affiliation was found to significantly affect awareness of family planning ($x^2 = 29.3$; df = 6; $p < 0.05$).

TABLE 3: AWARENESS OF FAMILY PLANNING

Variable	Yes (%)	No (%)	test statistics	p value
Age of respondents in years (n = 330)				
15 – 20	151 (45.8)	11 (3.3)	$x^2 = 11.8$ df = 3	0.008
21 – 25	156 (47.3)	0 (0)		
26 – 30	6 (1.8)	0 (0)		
31 – 35	6 (1.8)	0 (0)		
Total	**319 (96.7)**	**11 (3.3)**		
Religion (n = 416)				
Christianity	396 (95.2)	11 (2.6)	$x^2 = 1.13$ df = 1	0.287
Islam	12 (2.9)	0 (0)		
Ethnic group (n = 413)				
Ijaw	168 (40.7)	0 (0)	$x^2 = 29.3$ df = 6	0.001
Igbo	104 (25.2)	11 (2.7)		
Hausa	12 (2.9)	0 (0)		
Yoruba	35 (8.5)	0 (0)		
Urhobo	47 (11.4)	0 (0)		
Edo	12 (2.9)	0 (0)		
Others	24 (5.8)	0 (0)		

Table 4 shows that majority of the respondents had used the pill 146 (34.4%); followed by those that have used condoms 138 (32.5%). Amongst those that have used a form of contraceptive method, 16 (3.8%) are still using it; While,70.6% of those who are no longer using it is due to the side effects of the contraceptives they are using and 29.4% are due to dislike of the method they were using.

TABLE 4: UPTAKE OF MODERN CONTRACEPTIVES AMONGST RESPONDENTS

Variable	Frequency (%)	
	Yes	No
Which family planning method have you used (n = 387)		
Condom	138 (32.5)	
Pill	146 (34.4)	
Injectable	6 (1.4)	
IUCD	0 (0)	
Quinine	6 (1.4)	
Withdrawal method	52 (12.3)	
Breast feeding	0 (0)	
Stout	0 (0)	
Periodic abstinence	23 (5/4)	
Abortion	16 (3.8)	
Are you still using it (n = 205)	165 (80.5)	40 (19.5)
If no, why did you stop (n =17)		
To resume child bearing	0 (0)	
Side effects	12 (70.6)	
Spousal disapproval	0 (0)	
Did not like the method I was using	5 (29.4)	
The health centre is too far	0 (0)	
It was too expensive	0 (0)	
Other	0 (0)	

III. DISCUSSION

This is the first study that was conducted in the Federal University Otueke that accessed the knowledge and uptake of modern forms of contraceptives amongst female students of the University. The mean age of the respondents in the study was 20.9±3.2 years. In a similar study conducted in 22 developing countries the mean age of the respondents was

20.8±2.8 years14. The study conducted in Kano, North-West Nigeria and in Nepal the mean age of the respondents was 29.1±6.22 years and 30.1±8.12 years respectively15,16. The disparity in the study was due to the socio-demographic characteristics of the participants in the various studies. The study showed that about 96.4% of the respondents were within the age group 15-24 years; this clearly shows that current University undergraduates are relatively young. This is the age group at the greatest risk of sexual exploitation; hence they require help in making informed choice regarding their reproductive health.

The study showed that most of the respondents demonstrated a high knowledge of contraception. The finding in our study is consistent with the outcome in previous studies [14], [17], [18]. However as showed by other studies this level of knowledge about contraceptives may not translate to use of the products [18], [19]. The media was the source of information about contraception in 23% of the respondents while 24.8 % of the respondents had about family planning through other means. Only about 5.9% had about family planning through Medical Doctors and the 5.9 % through Nurses. This shows clearly that Doctors and other health practitioners should realize the role they have to play in improving the knowledge of family planning not only among undergraduates but in the general public. Doctors and other health care providers should ensure that they emphasis the role of contraceptives in reducing maternal morbidity and mortality to the public. This is very important in our society because according to the latest findings by the 2018 Nigeria demographic health survey 19% of women age 15-19 in Nigeria had begun childbearing [9]. This is worrisome and can only be reduced through the use of effective family planning services. In similar study in Ibadan south-west Nigeria, there was a low knowledge of contraceptives among the study participants, this was attributed to the fact that most of the respondents had of family planning from friends [20]. It is generally believed that information from Doctors and other health workers may generally be more accurate. In a similar study in Ghana only 11% of the respondents said their source of information was from health workers and 27% through social media however 25% of the participants do not know that relying on withdrawal method only, can lead to pregnancy and 21% did not know what oral contraceptive pills do [18].

The study showed that 76.4% and 68% of the respondents know condom and pills as a form of family planning. The finding in this study is not surprising since it is a general knowledge that these forms of contraceptives are very popular amongst young people in our societies. Most studies had outcomes in keeping with our study [16]-[19].

The awareness of family planning was 96.7% amongst the respondents. This is encouraging since having overall good knowledge and awareness of family planning may likely lead to an increase in the uptake of contraceptives and the reduction in unwanted pregnancies and its complications that is commonly associated with non-use or improper use of contraceptives in young people. The finding in our study is consistent with other work [15], [20], [22]. It is generally believed that awareness of family planning as demonstrated by this study and other previous studies is high, the problem now is the low level of usage of family planning services. The various barriers to the use of family planning should be eliminated so that the uptake can increase. The study also showed that age influences the awareness of family planning. This is supported by similar studies carried out in 22 developing countries and Tanzania [14], [21].

Condom and pills were the commonest form of contraceptives used by the respondents, 32.5% of the respondents used condom and 34.4% used contraceptive pills as a form of contraception. The finding in our study is in keeping with previous work [17]. It is generally believed that these forms of contraceptives are readily accessible and affordable to students. The uptake of other forms of contraceptives is low this was also demonstrated by a similar study conducted in Delta state, south-south Nigeria [22]. This is worrisome and calls for concerted effort to improve the uptake of other forms of contraception among undergraduates since these are group of people who are more sexually active and can easily be involved in unhealthy sexual practices.

Although findings in our study are in keeping, with similar works done in other Universities settings. The study had some limitations. First, the study was conducted in one University a multi-University would have been preferable. Second, only female undergraduates were involved in the study. Accessing the knowledge and uptake of contraceptives among male students is also important. Third, the questionnaires were self-administered these can easily increase the chances of bias. However, the findings in our study can go a long way in improving the knowledge and uptake of modern forms of contraceptives in our Universities and other higher institutions.

In conclusion, the study showed a high awareness and knowledge of family planning services among the undergraduate students however the use of contraceptives was suboptimal. Undergraduates students are young, sexually active and at the risk of sexual exploitation. The protection of their reproductive health should be paramount. Hence the need to improve the knowledge and use of family planning services among these group of individuals in our societies.

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