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Original Article

Knowledge and Utilization Practices of Oral Contraceptive Pills among Females of Reproductive Age: A Community Based Study

Chinelo Nneka Aguiyi-Ikeanyi[1], Moses Owoichoche Agene[2], Ezinwanne Jane Ugochukwu[1], Obinna Jude Aroh[1]

[1]Department of Clinical Pharmacy and Pharmacy Management, Faculty of Pharmaceutical Sciences, University of Nigeria, Nsukka, Enugu State, NIGERIA.
[2]Department of Pharmaceutical Services, St Mary's Hospital Okpoga, Benue State, NIGERIA.

ABSTRACT

Introduction: There is still unmet need of contraceptives use among Nigerian females especially the younger females despite the existence of adolescent reproductive health policy in Nigeria. This study assessed the knowledge and the utilization practices of oral contraceptives among female of reproductive age resident in Karu community of Nasarawa State. **Materials and Methods:** This study is a cross sectional study using a convenient sampling method with the aid of a structured questionnaire which had three (3) sections. Section A is to obtain the respondents socio-demographic characteristics. Section B assesses the respondents' knowledge of contraceptives. Section C assessed respondents' Utilization practice of Contraceptives. Data obtained was analyzed using SPSS Version 21 statistical software. Descriptive statistics and inferential analysis were conducted to obtain the mean, and standard deviations. Chi square was used to obtain association between categorical variables and respondents' socio-demographic characteristics. A *p*-value<0.05 was statistically significant at 95% CI. **Results:** Out of the 400 respondents, 197 (49%) were single while 19 (5%) were co-habiting. Most 129(32%) were within the age group of 25-30 years while only 128 (32%) of the respondents attained tertiary level of education. About 102 (25%) were civil servants while 159 (40%) practiced Islamic religion. Most (97%) of the respondents had good knowledge of oral contraceptives, however about 50.3% of the respondents had poor oral emergency contraceptives pill utilization practices. **Conclusion:** The female resident in Karu community of Nasarawa State had good knowledge of oral contraceptives, however their utilization practice of oral contraceptive pills was poor.

Keywords: Oral contraceptive, Emergency contraceptive pill, Knowledge, Utilization practice.

Correspondence:
Mrs. Chinelo Nneka Aguiyi-Ikeanyi
Department of Clinical Pharmacy and Pharmacy Management, Faculty of Pharmaceutical Sciences, University of Nigeria, Nsukka, Enugu State, NIGERIA.
Email: chinelo.aguiyi@unn.edu.ng

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INTRODUCTION

Unintended pregnancy is still on the increase in developing countries.[1] Unintended pregnancies bring about an increase in risk of unsafe abortions, maternal morbidity, and mortality.[2] In developing countries, 1 in 3 women give birth before the age of 20 and pregnancy-related death during childbirth is two times higher compared to women older than 20 years.[3] Annually, in sub-Saharan Africa, an estimate of about 14 million unintended pregnancies occurs with almost 59% occurring among women aged 15-24 years.[4] It is evident that use of effective contraceptive methods would cause a global reduction of 90% abortions, 20% pregnancy-related morbidity and 32% of maternal deaths.[5] Complications arising from pregnancy and childbirth is a major cause of death among women of childbearing age. Maternal mortality of women in sub-Saharan Africa is 1 in 39 live births, which is the highest when compared to other world regions.[6] The World Health Organization (WHO) estimated in 2012 that 287,000 maternal deaths occurred in 2010; sub-Sahara Africa (56%) and Southern Asia (29%) accounted for the global burden of maternal deaths.[6]

Young and unmarried females do not easily have access to information on the use of contraceptive due to strong cultural and religious beliefs.[7] This exposes them to the increased risk of unwanted/unintended pregnancies. In many African traditional culture settings, pregnancy before marriage is often viewed as an abomination; therefore, many young and unmarried females who get unintended pregnancies seek abortions services for fear of societal judgment.[7]

In Nigeria, unplanned intercourse is the primary cause of unwanted pregnancies; many women with unwanted pregnancies usually opt for abortion. Since abortion is illegal in Nigeria

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(unless medically recommended to save a mother's life) many abortions are carried out in an unsafe environment resulting in consequences which are grave and can be life-threatening or maternal death. Abortions account for 20%-40% of maternal deaths in Nigeria.[8] Effective contraceptive utilization has proved to reduce the challenge of unwanted and unintended pregnancies with a resultant reduction in unsafe abortion and maternal mortality.[9]

Oral contraceptive which is also referred to as birth control pill is any class of synthetic steroid hormones that can prevent pregnancy by suppressing the release of follicle stimulating hormone and luteinizing hormone. There are many commercial preparations of oral contraceptives.

Emergency contraceptive pill is a safe and effective way to prevent pregnancy after unprotected sex, contraceptive failure, or a sexual assault. It is commonly referred to as "Morning After Pill".

There is still unmet need of contraceptives use among Nigerian females especially the younger females,[10,11] despite the existence of the policy on adolescent reproductive health policy in Nigeria with the primary aim of ensuring availability and access to contraceptives especially for the young females.[12,13] Lack of access to contraception services and information on the use of oral contraceptives and fear of stigmatization is a major barrier to effective utilization of contraceptives. There is lots of misconception about contraceptives due to inadequate knowledge of contraception and contraceptives which has resulted to formation of negative attitude towards contraception. Knowledge and use of contraception are the indications most frequently used to assess the success of contraception. It is required that females have good knowledge of contraception and utilization of contraceptives in other to achieve effective contraception. This study assessed the knowledge of oral contraceptives and the utilization practices of oral contraceptives among female of reproductive age resident in Karu community of Nasarawa State.

MATERIALS AND METHODS

Methods

Study design

This study is a cross sectional survey of a sample of female of reproductive age living in Karu, Nasarawa State in Nigeria using a convenient sampling method.

Study setting

The study was conducted in Kabayi community which is in Karu local government of Nasarawa State. Nasarawa is a state in Northern Nigeria that comprises of 13 local government areas with its headquarters at Lafia. It has a land area of 27,117 km^2 and a population of about 1,869,377. Kabayi is a community in Karu LGA and has residents of over 25,000 people. The residents of this community are majorly civil servants while the rest are into business activities ranging from small scale to large scale businesses and commercial transport services leaving a little fraction of the resident as either jobless housewives or unemployed husbands.

Study Instrument

The study instrument was a self-administered structured questionnaire which had three (3) sections. Section A is to obtain the respondents socio-demographic characteristics. Section B assessed the respondents' knowledge of contraceptives. The respondents are to give a "True" or "False" response. Each right and wrong response was given a score of 1and 0, respectively. The scores were expressed as percentages and the mean obtained. Knowledge scores equal to and above the mean were categorized as having "Good knowledge", while knowledge scores below the mean were categorized as "Poor knowledge". Section C assessed respondents' Utilization practice of Contraceptives. Respondents were asked to give a response of "Yes" or "No". Each "Yes" response was scored "1", while a "No" response was scored "0". The scores were expressed as percentages and the mean obtained. The mean preventive score was obtained, and those students that had scores equal and above the mean were categorized as having "Acceptable utilization practice", while those with scores lower than the mean were categorized as "Unacceptable utilization practice".

The face and content validity of the study instrument was done by authentication from experts in the field of study and Cronbach Alpha, respectively.

The questionnaire was pre-tested on 30 respondents who did not form part of the pilot study to ascertain if the questionnaire is easily understood and if a suitable data was obtained with the instrument. After which modifications were made where necessary according to the experts' recommendations and opinion.

Participants

The respondents for this study are female Nigerians aged 12 years and above, living in Kabayi community of Nasarawa State. The sample size was calculated with the aid of Raosoft (www.raosoft.com/samplesize) to be 382 at 95% confidence interval with a margin of error of 5%. To account for non-responses 450 questionnaires were distributed for data collection.

Data Collection

The questionnaires were given to the respondent to fill when they come into the pharmacy outlets to purchase any oral contraceptive. The respondents were given some time to respond to the questionnaire after which it will be collected from them. Every filled questionnaire was kept in an envelope to ensure confidentiality of the information obtained.

Data Analysis

Data was analyzed using SPSS Version 21 statistical software (SPSS Inc., Chicago, IL, USA). Descriptive statistics and inferential analysis were conducted to obtain the mean, and standard deviations. Chi square was used to obtain association between categorical variables and respondents' socio-demographic characteristics. A p-value<0.05 was statistically significant at 95% CI.

Ethical Considerations

Ethical approval for this study was obtained from the Health Research Ethics Committee (HREC) of National Hospital Abuja with reference number NHA/EC/096/2023. Informed consent was obtained from the respondents before they were included in the study. Confidentiality of the patients and information was maintained all through the study.

RESULTS

Four hundred out of 450 questionnaires were retrieved and found useable, giving a response rate of approximately 89%. Out of the 400 respondents, 197 (49%, n=400) were single while 19(5%, n=400) were co-habiting with a male partner. The respondents within the age group of 25-30 years were the highest population 129 (32%, n=400). Most of the respondents were civil servants and students 102 (26%, n=400) each respectively. Much of the respondents 151 (38%, n=400) have spouses that had attained tertiary level of education while only 128 (32%, n=400) of the respondents attained tertiary level of education. Most respondents were Christians 201 (50%) while 159 (40%, n=400) practiced

Table 1: Demographic Characteristics of Respondents (n=400).

Variables	Frequency (n)	Percentage (%)	Variables	Frequency (n)	Percentage (%)
Age			**Income (#)**		
12-17	32	8.0	<10,000	36	9.0
18-24	112	28.0	10,001-20,000	67	16.8
25-30	129	32.3	20,001-30,000	74	18.5
31-35	72	18.0	30,001-40,000	118	29.5
>35	55	13.8	>40,000	105	26.3
Religion			**Marital status**		
Christianity	201	50.3	Married	184	46.0
Islamic	159	39.8	Single	197	49.3
Traditional	8	2.0	Co-habiting	19	4.8
Others	32	8.0	**No. of children**		
Educational level			0	169	42.3
Primary	60	15.0	≤3	125	31.3
Secondary	156	39.0	4	79	19.8
Tertiary	128	32.0	5	17	4.3
Informal	56	14.0	≥6	10	2.5
Spouses educational level			**Heard of contraceptives**		
Primary	62	15.5	Yes	385	96.3
Secondary	134	33.5	No	15	3.8
Tertiary	151	37.8	Do you use contraceptives		
Informal	53	13.3	Yes	159	39.8
OCCUPATION			No	241	60.3
Civil Servant	102	25.5			
Trader	56	14.0			
Self-employed	80	20.0			
Unemployed	60	15.0			
Student	102	25.5			

Islamic religion. About 105(26%, *n*=400) of the respondent have an income of above #40,000 while 118(30%, *n*=400) had an income between #30,001 and #40,000. The socio-demographic characteristics of the respondents are as shown in the Table 1.

About 387(97%, *n*=400) of the respondent have the knowledge that contraceptives are used to prevent pregnancy while 3(8%, *n*=400) do not know that there are different types of contraceptives. All 400(100%, *n*=400) of the respondents know that some oral contraceptives are taken daily and some only after intercourse however, only 7(2%, *n*=400) know that they can get pregnant if they dop not take contraceptives properly (Table 2).

The respondent's percentage mean knowledge of oral contraceptive is 92.5893± 3.17. Most (97%, *n*=400) of the respondents had good knowledge of oral contraceptives (Table 2).

Table 3 shows result of the respondent's utilization of oral contraceptives. About 134(34%, *n*=400) of the respondents strongly disagrees to using emergency oral contraceptives whenever they have intercourse to avoid getting pregnant while 288(72%, *n*=400) strongly disagrees to using emergency oral contraceptives daily to avoid pregnancy. Most 204(51%, *n*=400) strongly disagrees to using oral contraceptives because their partner does not like to use condoms while 11(2%, *n*=400) strongly agrees that their partner does not use condoms because of his religious beliefs.

Table 2: Respondents Knowledge of Contraceptives (*n*=400).

Questions	False (%)	True (%)
Contraceptives are used to prevent pregnancy.	13(3.3)	387(96.8)
There are different types of contraceptives.	3(8)	397(99.3)
Some are taken daily while some are taken only when sexual intercourse occurs during the fertile days.	0(0)	400(100)
Emergency contraceptives are taken only when sexual intercourse occurs during the fertile days.	10(2.5)	390(97.5)
Combined oral contraceptives are taken daily following a particular pattern.	7(1.8)	393(98.3)
Contraceptives cannot prevent infections.	375(93.8)	25(6.3)
I can get pregnant if i do not take my oral contraceptives properly.	7(1.8)	393(98.3)
Good knowledge=96.5%		
Poor knowledge=3.5%		

Table 3: Respondents' practices of Contraceptive use (*n*=400).

Questions	SDA (%)	DA (%)	NE (%)	AG (%)	SA (%)
I take emergency oral contraceptive only when I have sexual intercourse to avoid pregnancy.	134(33.5)	83(20.8)	40(10.5)	62(15.5)	81(20.3)
I take emergency oral contraceptive daily to avoid pregnancy.	288(72.0)	95(23.8)	9(2.3)	3(8)	5(1.3)
I take emergency oral contraceptive daily because my cycle is not regular.	318(79.5)	68 (17.0)	5(1.3)	5(1.3)	4(1.0)
I do not use combined oral contraceptive because they are not effective as the emergency contraceptive in preventing pregnancy.	219(54.8)	76(19.0)	83(20.8)	9(2.3)	`13(3.3)
I go to the pharmacy to buy oral contraceptive anytime.I have sexual intercourse.	175(43.8)	55(13.8)	105(26.3)	30(7.5)	35(8.8)
I can take emergency contraceptives daily because it does not have any side effects.	298(74.5)	85(21.3)	9(2.3)	4(1.0)	4(1.0)
I use oral contraceptives because my partner does not agree to use condoms.	204(51.0)	39(9.8)	52(13.0)	36(9.0)	69(17.3)
I use emergency oral contraceptives daily because my partner does not use condoms due to his religious belief.	239(59.8)	112(28.0)	26(6.5)	12(3.0)	11(2.0)
Acceptable practice=49.80%					
Unacceptable practice=50.20%					

Table 4: Association between knowledge and demographic variables (*n*=400).

Variable	Good Knowledge	Poor Knowledge	χ (d_f)	*p*-value	Variable	Good Knowledge	Poor Knowledge	χ (d_f)	*p*-value
Age					**Occupation**				
12-17	30	2			Civil servant	97	5		
18-24	103	4			Trader	54	2	1.132(4)	0.889
25-30	123	6	65.58(4)	0.000	Self-employed	76	4		
31-35	71	1			Un-employed	60	0		
>35	54	1			Student	99	3		
Religion					**Income (#)**				
Christianity	193	8	1.36(3)	0.715	<10,000	36	0	1.904(4)	0.754
Islamic	153	6			10,001-20,000	66	1		
Traditional	8	0			20,001-30,000	70	4		
Others	32	0			30,001-40,000	113	5		
Educational level					>40,000	101	4		
Primary	60	0			**Marital status**				
Secondary	1301	4	3.376(3)	0.337	Married	179	5	10.765(2)	0.005
Tertiary	42	9			Single	189	8		
Informal	53	0			Cohabiting	18	11		
Spouses level of education					**No. of children**				
Primary	61	1	1.781(3)	0.619	0	161	8	12.076(4)	0.017
Secondary	130	4			≤3	122	3		
Tertiary	42	9			4	76	3		
Informal	53	0			5	17	0		
					≥6	10	0		

The respondent's percentage mean of utilization practices of oral contraceptive is 36.5125 ± 12.16. About 50.3% (*n*=400) of the respondents had poor oral contraceptives pill utilization practices while the rest 49.8%(*n*=400) had good oral contraceptive pill utilization practices (Table 3).

Table 4 shows that respondents who are aged between 25-30 years of age had good knowledge of oral contraceptives at a highly significant value (*p*=0.000). Respondents who are married and those who do not have any children had good knowledge of oral contraceptives at a significant level (*p*=0.005 and 0.017 respectively).

Result obtained shows that respondents who practice Islamic religion and the singles utilize oral contraceptives very poorly at an incredibly significant value (*p*=0.000 and 0.001 respectively). However, there was a good utilization practice of oral contraceptives among respondents who had tertiary education which was significantly different from those who had informal education that had poor utilization practice (*p*=0.021) (Table 5).

DISCUSSION

Oral contraceptives are mostly bought as over the counter medication in most pharmacy. Most females use oral contraceptives because of it is easy to administer and there is no need for expertise or specialized skill to use an oral contraceptive. However, there seems to be increase in the failure rate of oral contraceptives as most females still get pregnant despite the use of an oral contraceptive. Ineffective utilization practices or improper use of oral contraceptives could be one of the major causes of failure of oral contraceptives. Inadequate information on the use or utilization of an oral contraceptive could be responsible. This study assessed the knowledge of oral contraceptives and utilization practices of oral contraceptives.

Table 5: Association between utilization practices and demographic variables (*n*=400).

Variable	Acceptable practice	Unacceptable practice	χ (d_f)	*p*-value	Variable	Acceptable practice	Unacceptable practice	χ (d_f)	*p*-value
Age					**Occupation**				
12-17	17	15	4.267(4)	0.328	Civil servant	45	57	4.926(4)	0.295
18-24	56	56			Trader	30	26		
25-30	70	59	65.58(4)	0.000	Self-employed	35	45		
31-35	28	44			Un-employed	31	29		
>35	28	27			Student	58	44		
Religion					**Income (#)**				
Christianity	162	39	249.491(3)	0.000	<10,000	21	15	3.670(4)	0.452
Islamic	2	157			10,001-20,000	33	34		
Traditional	6	2			20,001-30,000	42	32		
Others	29	3			30,001-40,000	54	64		
Educational level					>40,000	49	56		
Primary	30	30	2.032(3)	0.566	**Marital status**				
Secondary	71	85	3.376(3)	0.337	Married	93	91	13.687(2)	0.001
Tertiary	68	60			Single	89	108		
Informal	30	26			Cohabiting	17	2		
Spouses level of education					**No. of children**				
Primary	23	39	9.779(3)	0.021	0	75	94	9.187(4)	0.057
Secondary	60	74			≤3	75	50		
Tertiary	84	67			4	34	45		
Informal	32	21			5	10	7		
					≥6	5	5		

Findings from this study revealed that the female resident in Karu community have heard of oral contraceptives and had good knowledge of oral contraceptives. They know that contraceptives are used to prevent pregnancy and cannot prevent infections. They also know that emergency oral contraceptive pill is used to prevent pregnancy when intercourse occurs during the fertile days if taken within 72 hr after sexual intercourse.

There was an association between age and knowledge of oral contraceptives as deduced from this study. The females aged between 25-30 years had good knowledge of oral contraceptives when compared to the older females. This could be because they are young (aged between 25-20 Years) and at a higher risk of getting pregnant. Previous studies revealed that sexual activity among adolescents and young females is often associated with a greater risk for unintended pregnancies.[2] Young adults are usually more informed because they have tertiary or secondary education, are inquisitive, use mobile phones often and are familiar with modern technology. Hence, could obtain information from the internet or from peer group and sometimes from school. A significant association existed between knowledge of oral contraceptives and number of children. Respondents who are married and those who do not have children had good knowledge of oral contraceptive. This could be since they live with their spouses and have more chances of getting pregnant and because they have spouses who are supportive and educated.[14] Similar study conducted in India agreed that married women had good knowledge of contraceptives.[15] In addition, married females could have obtained information on contraception from the hospital during the antenatal visits, postnatal visits or during the marriage counselling sessions. Most married women are aware of the challenges that accompany unplanned or uncontrolled childbearing and the impact of children on their ambitions and female productivity at work or in academics. There is also the issue of economic burden of having uncontrolled childbearing. Hence, they tend to seek and acquire information on contraception often to avert those challenges and complications.

Studies conducted on utilization of contraceptive pill revealed that females in Karu community had poor utilization practice of

oral contraceptive pill. In Nigeria like most African country, there is lots of stigmatization involved in a female who is not married to get pregnant. There was an association between marital status and oral contraceptive pill utilization. Females who are single utilizes oral contraceptive pills very poorly when compared to the married. Even though most single ladies are more likely to indulge in risky sexual behaviors and may not have a regular sexual partner. Similar study from the Uganda demographic health survey stated that premarital sex is common, with at least one in five young females aged 15-24 being sexually active.[16] However, this study revealed that single females had poor utilization practices of oral contraceptive, despite the high tendency of risky sexual behaviors. The reason may be because of the inability to purchase the oral contraceptives from the community pharmacy, due to its cost or shyness or fear of stigma.

There was an association between level of education and utilization of oral contraceptive pill as revealed in this study. The females who had tertiary level of education utilize oral contraceptive pill more than those with informal education. This is because the educated female had good understanding of their menstrual cycle; they can determine their fertile days and safe days from their cycle. Hence, they tend to avoid pregnancy with oral emergency contraceptive pill if they have sexual intercourse in their fertile days. Also, females who are young and in the tertiary institution are more likely to indulge in sexual activities due to the freedom they feel when they are away from home and parental supervision and restrictions. Previous studies agreed with these findings, it states that nearly 70% of the students were sexually active in the past 12 months.[17] Young females in the tertiary institution often become sexually active due to peer-pressures, alcohol use, or due to perceived sense of being in control of their social lives.[18,19] Previous studies agreed that literacy, age, the number of children were factors that influenced use of contraceptives.[20-22]

Findings from this study reveal that there is an association between religion and utilization of oral contraceptive pill the respondents who were Christians had good utilization practices compared to the Muslim females. This finding could be due to some religious and cultural belief that children are gifts from God, that God has blessed our womb with lots of gifts (children). Similar study stated that Muslims practice polygamy, a man is allowed to marry more than one wife.[23] The Muslim women/ wives believe that they get more attention from their husbands when they get pregnant. Hence, they will less likely utilize oral emergency contraceptive pill since they will desire to have as much children as they can have so that they can get more attention from their husband.[23,24]

CONCLUSION

The female resident in Karu community of Nasarawa State had good knowledge of oral contraceptives, but poor utilization practice of oral contraceptive pill. There is need for an awareness and education program that will be targeted at proper utilization of oral contraceptive pills for the females in Kabayi community.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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