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Results : Majority of the respondents, 538(87.8%) were within the age group 20 years and above and married (86.3%). More than half 406(66.3%) were currently using a modern contraceptive method, 41(6.7%) and 4(0.7%) were using natural and traditional methods respectively, however, 161(26.3%) were not using any method, main reasons being affordability and availability 184(41.2%), and reliability (20.1%). The most significant socio-demographic determinants of ever use of contraceptives were religion and family setting, p-value 0.001 and 0.001 respectively.

Conclusion : The point prevalence rate of contraception among the rural women was 66.3%, with fear of side effect and husbands' disapproval among other reasons being the main reasons for non use.

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1. INTRODUCTION

Many authors raised the alarm that a stage would reach in the world when food supply would not match its population growth. (Braddocks, 1977; Huxley, 1951; Malthus, 1798; Moor, 1976) While most of the developed countries have managed to overcome this, the issue of population growth and consequent food shortage in developing countries is overwhelming. (Jones, 2004; Nwachukwu & Obasi, 2008) This expansive population growth rate has been attributed to some factors, the major of which is low contraceptive usage. (Bongaarts, 1978; Bongaarts, 1982; Osheba, 1992) In industrialized countries, virtually all married women resort to contraception at some time in their reproductive period. In contrast, the proportion reporting such use in developing countries is extremely low. (Henry & Piotrow, 1979; Khalil, Atta, Kamel & Youssef, 1996; Morris L et al, 1981).

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Nigeria which has a population of 140 million and an annual growth rate of 3.2 % (NPC, 2007) is the most populous country in Africa. Nigeria, according to Khurfeld (2006), is already facing a population explosion with the resultant effect that food production cannot match the growing population. In Nigeria today, the birth rates are higher than the world averages. (Nwachukwu & Obasi, 2008) Contraceptive Prevalence Rate (CPR) is still embarrassingly low in Nigeria, according to the report released by the International women's health coalition, the CPR among married women aged 15-49 years was 8% for modern methods and 12% for all methods. Also, other studies have reported a similarly low adoption rate of Modern Birth Control Methods (MBCM). (Haub & Yangishila, 1992; Makinwa-Adebusuyi, 2001; Population Reference Bureau, 2002; UNFPA, 2007).

Like many other developing nations, majority of Nigeria's population (about 70%) live in the rural communities. (Ekong, 2003) These rural communities have very high fertility rate and the CPR is also considerably lower in rural areas with CPR of 8% as compared with 18% in the urban areas in Nigeria. (Ekong, 2003;) Many rural women are reportedly reluctant to accept any artificial method of contraception. (Gaur, Goel M.K, Goel M, 2008) Several studies also revealed that rural women who were unwilling to accept family planning methods were concerned about child survival and viewed children as a source of support in old age. (Kartikayan & Chaturvedi, 1995).

Adopting MBCM is a very complex sociological issue in Africa, and African women draw on a complex social repertoire in making contraceptive choices. (Johnson-Hanks, 2002) Decision-making concerning fertility control is, for many people, a deeply personal and sensitive issue, often involving religious or philosophical convictions. (Burkman, 2002) Studies carried out in Nigeria have shown that lack of adequate information and ignorance are key factors militating against family planning practice in Nigeria. (Adinma & Nwosu, 1995; Moronkola, Ojedian & Amosun, 2006) The socio-economic characteristics of women, notably educational levels have been argued to explain differences in reproductive behaviour and contraceptive choices. (Anju, Vanneman & Kishor, 1995; Caldwell, 1982; Dyson & Moore, 1983; Kazi & Sathar, 2001) The perceptions and the behaviour related to reproduction have also been said to be strongly determined by

prevailing cultural and religious values. (Srikanthan & Reid, 2008).

The introduction and acceptance of MBCM are therefore crucial in controlling the population growth in have access to effective Family Planning Methods, would prevent 23 million unplanned births, 22 million abortions, 1.4 million infant deaths, 142,000 pregnancy related deaths and 505,000 children losing their mothers due to pregnancy related deaths. This research was therefore carried out to study the current status of contraceptive use and the determinants among women in rural communities in Osun State, Nigeria with a view to making necessary recommendations that would help improve utilization of family planning services.

II. RESOURCES AND TECHNIQUES

This descriptive cross sectional study was carried out in the rural communities of Osun state, Nigeria and the target population was the women of reproductive age group in these communities with an estimated population of 1,048,456.

A multi-stage sampling technique was used to select the respondents from a total of 12 rural communities from 12 local government areas in the state. Stage 1, from a sample frame of 30 local government and 1 area office, 12 local government areas were selected using simple random sampling method. In stage 2, a list of rural areas in each local government was made and one rural community selected randomly from each list. In stage 3, numbers were given to all the houses in the community, and only the houses with odd numbers were selected while in stage 4, all women of reproductive age group within the age 15-49 years, who consented, were interviewed or self administered the questionnaires. A sample size of 384 was arrived at using the Leslie Fischer's formula for population greater than 10,000, but to increase representativeness and to make up for non-response, a total of 612 pre-tested semi-structured questionnaires were administered.

There was scoring of outcome variables for the knowledge of respondents about contraception with correct answers scored 1 point and wrong answers scored 0. After adding the scores and finding the mean, respondents who scored below the mean were regarded to be having poor knowledge and those with scores up to or above the mean to be good knowledge. Similarly for attitude, using the 5 point Likert scale, with strongly agreed and agreed scoring 1 point and disagreed, strongly disagreed and I don't know scoring 0 for correctly answered questions, and vice versa for incorrectly answered questions. Scores that are up to or more than the mean were regarded as positive attitude and those below the mean as negative attitude.

The questionnaires were manually sorted out and analyzed using statistical package for social

Nigeria. (Nwachukwu & Obasi, 2008) The UNFPA(2006) has pointed out that meeting the contraceptive needs of about 201 million women around the world who do not sciences (SPSS) version 15 on the computer. Appropriate cross tabulations and test statistics were applied and the p-value set at $p = < 0.05$

III. RESULTS

More of the respondents were in the age range of 35 years and above, 179(29.2%) followed by 20 to 29 years 155(25.3%), with a mean age of 29.59 ± 8.57 years. Most of them were married 528(86.3%), Muslims 359(58.7%), and had secondary school education 310(50.7%), while trading is the major vocation, 259(42.3%) among the respondents (Table 1).

Table 1 : Socio-Demographic Characteristics of Respondents (n=612)

VARIABLE	FREQUENCY (PERCENTAGE)
Age Group (in years)	
19 and Less	74(12.1)
20 – 24	90(14.7)
25 – 29	155(25.3)
30 – 34	114(18.6)
35 and above	179(29.2)
Marital Status	
Single	77(12.6)
Married	528(86.3)
Divorced	4(0.7)
Widow	1(0.2)
Separated	2(0.3)
Religion	
Christianity	251(41.0)
Islam	359(58.7)
Traditional	2(0.3)
Occupation	
Unemployed	1(0.2)
Teaching	10(1.6)
Tailoring	76(12.4)
Farming	113(18.5)
Student	83(13.6)
Hairdressing	70(11.4)
Trading	259(42.3)
Highest level of Education	
No formal education	70(11.4)
Primary school	149(24.3)
Secondary	310(50.7)
Tertiary	83(13.6)

In table 2, some of the respondents understood contraception to mean prevention of unwanted pregnancy 297(48.5%) and limiting the family size 199(32.5%), their source of information was mainly the health personnel, 322(52.6%). Majority of the women, 548(89.5%) did not know any side-effect of

contraceptives and 20(3.3%) of them reported condom burst/spillage as a side-effect of condom use. Two hundred and twenty nine (37.4%) respondents felt the husband should solely decide on family planning, while 131(21.4%) felt it was the wife/partner, but 252 (41.2%) felt it is a joint responsibility of husband and wife/partner.

Table 2 : Knowledge of Respondents about Contraception (n=612)

VARIABLE	FREQUENCY (PERCENTAGE)
Definition of contraception	
Prevention of unwanted pregnancy	297(48.5)
Child spacing	99(16.2)
Limit family size	199(32.5)
Prevent sexually transmitted diseases	17(2.8)
Sources of Information	
Friends / Relatives	124(20.3)
Health personnel	322(52.6)
Printed medial (postal, hand bill)	26(4.2)
Electric media (Radio, TV)	140(22.9)
Knowledge of Side-effects	
None	548(89.5)
Weight gain	8(1.3)
Weight loss	5(0.8)
Condom burst / spillage	20(3.3)
Extra marital affairs	7(1.1)
Amenorrhea	6(1.0)
Secondary infertility	6(1.0)
Heavy menses	3(0.5)
Dislodgement	5(0.8)
Irregular menses	4(0.7)
Decider of Family Planning Method	
Husband	229(37.4)
Wife	131(21.4)
Both	252(41.2)

In table 3 below, Rings 359(58.7%), abstinence 527(86.1%), male condom 571(93.3%) and injectables 491(80.2%) were the most well-known traditional, natural, barrier and hormonal methods respectively. After the scoring of outcome variables, table 4, majority of the respondents 464(75.8%) had good knowledge while the others 148 (24.2%) had poor knowledge. (table 4)

Table 3 : Knowledge about Contraceptive Methods (Multiple Response; n = 612)

VARIABLES	FREQUENCY (PERCENTAGE)
Traditional	
Armlet	178 (29.1)
Ring	359(58.7)
Pad lock	224(36.6)
Waist band	218(35.6)
Natural	
Periodic Abstinence	527(86.1)
Rhythm	344(56.2)
Lactational amenorrhoea	287(46.9)
Coitus interruptus	336(54.9)
Barrier	
Male condom	571(93.3)
Female condom	3(0.5)
Diaphragm	180(29.4)
Hormonal	
Injectable	491(80.2)
IUCD	365(59.6)
Implants	184(30.1)
Pills	485(79.2)
Surgical	
Vasectomy	2(0.3)
Bilateral tubal ligation	0(0)

Table 4 : Knowledge and Attitude of Respondents about Contraceptives (n=612)

VARIABLE	FREQUENCY	PERCENTAGE
Knowledge		
Poor	148	24.2%
Good	464	75.8%
Attitude		
Poor	86	14.0%
Good	526	86.0%

On the attitude of the respondents towards contraception, most of them strongly agreed to the national policy of 4 children per family 487(79.6%) and the involvement of husbands in family planning decisions 476(77.7%). Most of the respondents strongly disagreed with the fact that contraception was against culture and religion 382(62.4%), and that only females should use contraceptives 411(67.1%). Furthermore, they strongly disagree that contraceptives are ineffective 376(61.4%) and that it is only for the literates 489(79.9%). Appreciable number however felt contraceptives would encourage promiscuity 186(30.4%) and would diminish sexual pleasure 162(26.4%). Though 329(53.7%) and 368(60.2%) respectively felt otherwise. (Table 5)

Table 5 : Attitude of Respondents towards Contraception (n=612)

Variable	Frequency (Percentage)				
	Strongly Agree	Agree	I don't know	Disagree	Strongly Disagree
It is against culture and religion	11(1.8)	33(5.4)	161(26.3)	25(4.1)	382(62.4)
Only females should use contraceptives	34(5.6)	33(5.4)	80(13.1)	54(8.8)	411(67.1)
Contraceptives are ineffective	13(2.1)	28(4.6)	80(13.1)	175(18.8)	376(61.4)
It encourages promiscuity	96(15.7)	90(14.7)	97(15.8)	189(3.1)	140(22.8)
Diminishes sexual pleasure	51(8.3)	111(18.1)	82(13.4)	167(27.4)	201(32.8)
It is only for the literate	21(3.40)	16(2.60)	67(10.9)	19(3.2)	489(79.9)
Husbands should be involved in family planning decision	476(77.7)	49(8.0)	33(5.4)	36(6.0)	18(2.9)
Support national policy of 4 children per family	487(79.6)	110(17.9)	6(1.0)	5(0.8)	4(0.7)

In table 6, majority of the respondents 406 (66.3%) were currently using a modern contraceptive method, 41(6.7%) were using natural methods, 4(0.7%) were using traditional methods and 161(26.3%) were not using any method. The main reason given for choice of contraceptive methods was affordability and availability, 184 (41.2%), followed by reliability by 20.1% of the

respondents. Most of the non-users 142(86.4%) did not have any reason for not using any method. Most of the users had used the method of choice between 1- 5 Years (44%), followed by 6-10 years by 26.6% of the respondents.

Table 6 : Prevalence of Contraceptive usage

VARIABLE	FREQUENCY(PERCENTAGE)
Currently used contraceptive methods (n = 612)	
None	161(26.3)
Natural	41(6.7)
Traditional	4(0.7)
Modern methods	406(66.3)
Main Reasons for choice of Contraceptive Methods (n = 447)	
No reason	98(21.9)
Affordable and available	184(41.2)
Little or no side effect	75(16.8)
Suitable effective / reliable	90(20.1)
Main Reason for not using any method (n = 165)	
No reason	142(86.4)
Side effect	13(2.6)
Husband's disapproval	6(6.2)
Desire for more children	4(4.7)
Duration of Contraceptive use(in years)(n=467)	
1 – 5	205(44.0)
6 – 10	124(26.6)
11 – 15	107(22.9)
16 – 20	28(5.9)
21 – 25	3(0.7)

Table 7 shows that the significant socio-demographic determinants of ever use of contraceptives was religion and family setting, p-value 0.001 and 0.001 respectively, but no significant associations between age, marital status, tribe and educational status with ever used family planning methods.

Table 7 : Association between Socio-Demographic Characteristics of Respondents and Ever Used Family Planning Methods.

Socio-Demographic Characteristics	Ever Used Family Planning Methods		Total (%)	Chi square	df	p-value
	No (%)	Yes (%)				
Age Group (Years)						
19 and less	18(24.3)	56(75.7)	74(100.0)	0.717	4	0.949
20 – 24	24(26.7)	66(73.3)	90(100.0)			
25 – 29	37(23.9)	118(76.1)	155(100.0)			
30 – 34	25(21.9)	89(78.1)	114(100.0)			
35 and above	41(22.9)	138(77.1)	197(100.0)			
Total	145(23.7)	467(76.3)	612(100.0)			
Marital Status						
Single	17(22.1)	60(77.9)	77(100.0)	11.264	6	60.753
Married	128(23.9)	407(76.1)	535(100.0)			
Total	161(26.3)	451(73.7)	612(100.0)			
Religion						
Christianity	45(17.9)	206(82.1)	251(100.0)	13.636	2	0.001
Islam	98(27.3)	261(72.7)	359(100.0)			
Traditional	2(100.0)	0(0.0)	2(100.0)			
Total	145(23.7)	467(76.3)	612(100.0)			
Family Setting						
Monogamy	71(19.7)	290(80.3)	361(100.0)	11.52	2	0.001
Polygamy	57(32.8)	117(67.2)	174(100.0)			
Total	128(23.9)	407(76.1)	535(100.0)			
Educational Status						
No formal education	20(28.6)	50(71.4)	70(100.0)	1.361	3	0.715
Primary School	32(21.5)	117(78.5)	149(100.0)			
Secondary School	74(23.9)	236(76.1)	310(100.0)			
Tertiary	19(22.9)	64(77.1)	83(100.0)			
Total	145(23.7)	467(76.3)	612(100.0)			

IV. DISCUSSION

The awareness about contraceptive methods was generally high among the respondents with about 9 in 10 respondents knowing male condoms and 8 in 10 knowing injectables as methods of contraception and almost all of them being aware of one method or the other. This high level of awareness has been similarly reported by previous studies within and outside Nigeria. (Barrett & Buckley, 2007; Ndiaye, Delaunay & Adjamagbo, 2003; Nwachukwu & Obasi, 2008; Touati, Abdelaziz, Mtraoui & Marzouki, 2001) The knowledge of respondents about contraception/family planning was also high with about three-quarters having good knowledge of contraception. This was also corroborated by Moronkola et al (2006) in their study carried out in south western Nigeria. This pattern should be expected in light of much enlightenment that is on-going on the issue of family planning in the country. It is however still worthy of note that some contraceptive methods were very unpopular among the respondents. Only about a

quarter knew about the diaphragm and implants and not up to 1% of the respondents knew about female condoms as methods of contraception. This is most likely due to the fact these methods are not readily available and are relatively more expensive than the other commoner methods like the male condoms.

The most popular contraceptive method from this study is the male condom with more than 9 in 10 respondents knowing about it. This is similarly reported by other studies. (Kalambayi, 2006; Nwachukwu & Obasi, 2008) and is probably due to the fact that it is cheap and readily available and it is much more advertised probably also because of its dual function as a means of preventing sexually transmitted infections and also as a family planning method. Unlike in other studies where the media was the predominant source of information, (Bassey, Abassattai, Asuquo, Udoma & Oyo-ita, 2005; Onwasigwe, 2001) more than half of the respondents knew about contraception through health personnel, which is similar to the finding of a study done in Pakistan by Shah, Nisar and Qadri (2008) on the

awareness and pattern of utilizing family planning services among women attending Urban Health Care Centre. This is a pointer to the importance of enhanced primary health care services in the rural communities, though the media would still need to do much more work on public enlightenment about contraception. Also, an appreciable number (20%) heard about contraceptives from friends and relatives, and this underscores the need for peer educators in ensuring correct and adequate information about contraceptives/family planning.

Most of the respondents were favourably disposed towards contraception with more than four-fifths having a positive attitude towards contraception. However about 3 in 10 respondents felt contraception encourages promiscuity. This may be due to the conservative nature of typical African societies and could be one of the complex sociological factors (Johnson-Hanks, 2002) affecting contraceptive usage in African communities. Furthermore, nearly 90% of the respondents felt the husbands should be involved in family planning decisions and this is important because man approval and decision making has been said to be very important in utilizing family planning services, (Donati, Hamam & Medda, 2000; Shah et al, 2008; Shahin & Shahin, 2003) and this further stresses the need to carry men along in family planning campaigns.

The prevalence of modern contraceptive methods usage among the respondents was 66.3% with cost and availability being the predominant reason for choice of contraceptive methods. This prevalence is higher than the findings of other studies in rural areas in Nigeria (Nwachukwu & Obasi, 2008) and other developing countries. A study by Ndiaye, Delaunay and Adjmagbo (2003) in rural Senegal reported a prevalence rate as low as 1.5% for modern contraceptives, another study among females in predominantly rural Muslim area of North India (Gaur et al, 2008) reported prevalence of 34.9% and about half were using modern family planning techniques in the study carried out among married Sudanese women. (Ibnouf, van den Borne & Maarse, 2007) This may be due to the high literacy rate among the respondents with about two-thirds having post-primary school education, because education has been said to play an important role in women's life and assist in decision-making. (Gage, 1995; Marchant, Mushi, Nathan, Mukasa, Abdullah, Lengelen, et al, 2004) There was however no significant association between the use of contraception and educational status in this study.

The unmet need for contraception was high among the respondents with about a quarter not on any contraceptive method. This corroborates the work of Westoff (2006) that reported about one in five married women of childbearing age (22%) in Africa has an unmet need for contraception, with a higher percentage

among rural women. It is even more disturbing that more than 3 out of 10 of the respondents had an unmet need for modern contraception, because other methods (eg traditional method) have been associated with high failure rates. (Westoff, 2006) There is therefore a need for more work to be done to reduce the unmet need for contraception among women because reduced unmet need for contraception is an indicator of progress toward two of the United Nations Millennium Development Goals—reducing maternal mortality and reversing the spread of HIV/AIDS—and contributes directly or indirectly to achieving all eight goals. (Population Division, United Nations, 2009) Nearly 9 out of 10 respondents who did not use contraception had no reason for not using it. The reasons given by others are the fear of side effects, husbands' disapproval and the desire for more children, which is similar to what has been reported by other studies. (Donati, Hamam & Medda, 2000; Nwachukwu & Obasi, 2008; Shahin & Shahin, 2003).

The relationship between religion and family planning has been documented by previous studies and religion has been recognized as a very important determinant of contraceptive usage. (Gaur et al, 2008; Nwachukwu & Obasi, 2008; Shah, Pradhan, Reddy & Joseph, 2006) This may explain the significant association between religion and ever used family planning methods with the Christians having a higher uptake of family planning methods than the Muslims in this study. There was also a significant relationship between family setting and ever used family planning with more women in monogamous family settings using family planning methods as compared to those from polygamous family settings. This may be a reflection of the insecurity that exists among women in polygamous family settings with the women trying to outwit each other in the number of children in order to secure their positions in the family and in the will when the husband dies.

V. CONCLUSION AND RECOMMENDATIONS

The use of any modern contraceptive method was high among women of child bearing age in the rural communities of Osun State, with the prevalence rate of 66.3%, and the un-met need was 26.3%. The main reasons for non- use contraceptive were the fear of side effects, husbands' disapproval and the desire for more children, with religion and family setting having a significant association with the use of modern contraceptive methods. It is therefore necessary for religious leaders to be targeted and carried along in the campaign for modern contraceptive methods. The mass media should also be encouraged to do more in public enlightenment on the benefits of modern contraceptive methods.

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