Gender issues in contraceptive use among educated women in Edo state, Nigeria

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ABSTRACT

Background: While traditional contraception is widely used, in southern Nigerian modern contraception is a relatively recent phenomenon. Modern contraception is more wide spread among the educated and sexually active youth in Nigeria**.** Few studies have been done on contraception among educated women in Nigeria

Objectives: This study was carried out in December 2000 to determine factors that influence the choice of contraceptives among female undergraduates at the University of Benin and Edo State University Ekpoma.

Methods: Data was collected from a sample of 800 female undergraduates matched ethnic group, socio economic status, religion and rural urban residence. Subjects were selected by proportional representation and the instrument used was closed ended questionnaire.

Results: The responses obtained were analysed using Spearman Rank Correlation co-efficient and regression analysis. Findings revealed the highest correlation for availability (r = .96) vis a vis the use of various types of artificial contraceptive and cost (r =.96), next was safety (r = .95) and effectiveness (r = .95). Others were peer group influence (r = .80) and convenience (r = .77).

Conclusion: An important step in improving women's reproductive health is the involvement of men. Health programmes should conduct campaigns to educate men about reproductive health and the role they can assume in family planning.

African Health Sciences 2004; 4(1) 40- 49

INTRODUCTION

There has been a proliferation of the use of various types of contraceptives particularly among category of young women.[1,2,3] The effectiveness safety, side effects, contraindications and availability of these methods, vis the pill, barrier methods, Intra-Uterine Contraceptive Device vary. Hence there is an opportunity to make a choice by individuals or couples. A perfect contraceptive would be 100% effective, totally safe, available to everyone, completely without side effects, instantly reversible and easy to use. It would not interfere with intercourse in any way and would require no advice or care from the clinician. There is no such method today and according to research experts, there are no likely prospects for any in the future. It is the responsibility of health professionals to ascertain that each person who obtains a family planning method has sufficient information on the proposed method and that this person is competent to make a choice.

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Educated and working women are presumed to have closer conjugal ties with their husbands compared to non-educated and unemployed women.[5,32] The educated woman is therefore, expected to have similar reproductive attitudes as their husbands. On the other hand education and employment tend to give greater freedom and power within the household.[4] It may then be argued that educated and non working wives are more likely to have reproductive preferences that are independent of their husbands. For instance[5] found spousal agreement about contraceptive use to be positively related to education, while agreement about desired number of children was negatively associated with education.[6]

Empowerment literally means 'to invest with power'. When used in context of women's lives, it often refers to women's increased control over decision-making, economic self-reliance, and legal rights to equal treatment, inheritance and protection against all forms of discrimination[7,8]. In the context of family planning, the concept of women's empowerment is generally associated with a variety of elements that range from delayed marriage, smaller families, access to accurate information, the ability of married females to discuss freely about their family planning needs with spouses and other members of the household and the community, and being able to make independent decisions on fertility regulation including going out of living boundaries to seek contraceptive supplies.

It is quite difficult to measure a variable like empowerment numerically and empowerment is a multidimensional concept. Many studies measured women's power and autonomy indirectly, through proxies such as educational attainment, employment status, age at marriage, or husband-wife age difference. There have been fewer attempts to measure empowerment directly via information on women's freedom of movement, participation in reproductive and other important household decision making, e.g in community decision making, freedom from domestic violence, and husband wife communication[9]. However,[9-13] and Steele et al (1998) have attempted to measure women's empowerment directly.

Makinwa and Jense[15] argue that although socialization of women into positions and roles that are different from those of men is a universal practice, it has resulted in greater inequality and female subordination in Sub-Saharan African societies than in most other societies in the world. Gender stratification results in gender inequality, inequality in prestige, inequality in decision making powers and inequality in access to resources. Although there may be difference in matters of women subordination and economic dependence across African societies, these are matters of degree rather than kind.

Cultural barriers as well as taboos associated with modern contraception particularly Intra Uterine contraceptive device, as well as spouses opposition to contraceptive use have been highlighted by[16, 17].

METHODS

Sampling and Population

The main data set was on factors that affect the choice of contraceptives among university women in Edo State, Nigeria.

The following variables were examined : availability, cost, safety, effectiveness, convenience and peer group influence.

The target population comprised all female undergraduates of the University of Benin[18-20] and Edo State University Ekpoma[2,19-21]. A sample of 800 students were selected, 400 from each university using cluster sampling with the aid of undergraduates of the university of Benin.

Subjects were matched on the basis of sex, ethnic group, socio-economic status and education of parents, religion and rural urban residence. The mean age was 19.5 years.

Subjects were selected by proportional representation from the university registry on the basis of ethnic group and religion. 32% were of Edo origin, 36% of Ibo and Yoruba origin and 22% of other minority ethnic groups like Ijaw, Itsekiri, Igala and Idoma, 66% of the respondents were christians and 31% were Moslems. The remaining 3% were of other religions such as Hindi, Bahai and Traditional African Religion.

The instrument consisted of a closed ended questionnaire in which responses were scaled using continuously discrete categories of the variables mentioned viz; safety / very safe, quite safe, moderate, little unsafe and very unsafe for all the variables mentioned. The data obtained from the scaled responses were subjected to statistical analysis using Spearman Rank Correlation Coefficient and Regression analysis. Previously a Pilot Study using twenty questionnaires was administered to ensure that response yielded desired information and a reliability test using Kuder Richardson Formula was carried out (r = .82).

Preliminary information on basic demographic data elicited at the beginning of the questionnaire.

All the variables were examined in the questionnaire for each contraceptive as indicated below:

Socio Demographic Characteristics

Caldwell and Caldwell[18] reported that in Ibadan City, Nigeria, initial use was to allow pregnancy-free premarital sex in 35 per cent of cases, to space births in 31 per cent, to replace terminal abstinence (when grandmothers) in 7 percent, and for stopping childbearing in 4 per cent. By the early 1990s, the situation with regard to all contraceptive demand in Ado-Ekiti, Nigeria, was not very different: 44 per cent for premarital sex, 27 per cent for spacing, and 6 per cent for stopping[22]. Later in the decade, in the four traditional settings of northern Ghana villages, it was 46 per cent for spacing and 23 per cent for limiting[23]. In Nodola, Zambia, the demand for spacing is three times that for stopping[24]. This is a pattern found nowhere else in the world and dictates the necessity for providing a range of temporary methods.

In Nigeria, pills have been mostly provided, but in urban clinics the IUD is now competing and female sterilization is acceptable[25]. As early as 1990,[26] had pointed to the acceptability of female sterilization which then made up 41per cent of contraceptive use in Kenya, 19 per cent in Ghana and 14 per cent in Liberia, although only one per cent in Ondo State, Nigeria.

Nigeria is one of the countries with the highest fertility and population growth rates in Africa[27]. The Nigerian Fertility Survey[8] reported completed fertility of

5.84 children ever born for all women and 5.85 children for currently married women. An overwhelming majority of 87.3 per cent of the currently married women wanted to have more children. The report further showed that contraceptive knowledge and use levels were very low. As many as 66.3 per cent of respondents had never heard of any contraceptive methods. Use levels were correspondingly low, 84.9 per cent had never used any method, and 12.5 per cent had used at least one inefficient method, while only 2.4 per cent had used an efficient method.

The Nigerian Demographic Health Survey[8] showed that the mean number of children born to women aged 40 - 49 years was 6.9 children, an increase from the figure of 5.41 children in the 1981/82 Nigerian Fertility Survey. Contraceptive knowledge and use levels had increased slightly, 45.7 per cent of women did not know any method, 6.0 percent were currently using a method while only 3.5 per cent were using a modern method. Follow up studies by the Federal Office of Statistics (FOS) showed that knowledge of family planning had increased considerably, from 33.6 per cent in 1981/82 to 83.1 per cent by 1992. Current use of a modern method was only 10.5 per cent by 1992. Thus Nigeria presents a setting of high fertility and low demand for contraception.

High fertility translates into high population, and the growth rate was estimated to be between 2.5 and 3.0 per cent per annum. Nigeria's population currently estimated to be 115 million persons is expected to reach 190 million persons by the year 2005, and 338 million persons by the year 2050[8]. Such rapid population growth raises various problems for economic growth and development in Nigeria. Furthermore it is estimated that half of all births in many less developed countries, including Nigeria pose high risks to the health of both mother and child, as births occur to women who are too old or too young, or who have many previous births, or whose current births are too soon after the previous birth. Family planning can reduce high rates of sickness and death among women and children. Infant mortality rate is estimated to be 73.34 per 1,000 live births[8].

Female education had a positive and significant association with approval of the family planning, number of methods heard of, number of sources of supply known (urban women only), ever use and current use of family planning as well as use of efficient methods. It had a negative and significant association with children ever born. The association was strong for urban women[28].

Responses on parents socio-economic status were also elicited in the questionnaire to determine the exact role of cost on choice of contraceptives.

Table 1: Multiple classification analysis of Contraceptive use by selected background Variables with safety, cost, availability, convenience, effectiveness and peer group influence as co-variates.

Variable + Category	No	Unadjusted Dev'n(Beta)	Adjusted For Independents Dev'n (Beta)	Adjusted for Independents + Dev'n (Beta)
Ethnic Group				
Edo	256	1.48	.77	.76
Ibo	144	3.66	1.90	1.89
Yoruba	144	3.66	-1.21	-1.20
Ijaw	87	-2.64	-1.69	-1.67
Itsekiri	81	-2.97	-1.06	-1.05
Igala	57	-3.27	-1.21	.31
Idoma	51	-.51	-.63	1.58
		(.54)	(.28)	(.28)
Religion				
Christians	528	2.76	1.32	1.32
Moslems	248	-1.82	-7.3	-.73
Hindi	3	-1.82	.32	-1.05
Bahai	2	1.81	1.59	.31
Traditional	19	3.26	.04	1.58
African Religion		(.50)	(.16)	(.16)
Parents Education				
None	363	-1.06	-1.05	-.65
Passed Standard VI	145	.32	.32	.56
Modern School	94	1.59	.55	1.57
University degree and above	128	.04	1.55	.04
		(.44)	(.16)	(.16)
Multiple R Squared	.370			.370
Multiple R	.608			.608

Table 2: Multiple Correlation of Independent Variables

Rand R^2 Co-efficients of all Independent Variables	Entire Sample Data (N = 800)
Safety R	.95
R^2	.91
Effectiveness	.95
R^2	.90
Convenience R	.77
R^2	.59
Cost R	.96
R^2	93
Availability R	.96
R^2	.92
Peer Group Influence R	.80
R^2	.64

Table 3: OLS Regression co-efficients for type of artificial contraceptive used for safety, Cost, Availability, Convenience, Effectiveness, and Peer Group Influence

Variable	Unstandardized Co-efficient	Standardized Co-efficient	R Value	Significance of F
Respondent's Age	0.002	0.003	.061	.701
Ethnic Group				
Edo	1.812	.158	.53.741	.000
Ibo	3.242	.263	132.242	.000
Yoruba	0.510	.033	6.294	.017
Ijaw	0.510	.165	124.522	.000
Itsekiri	0.690	.081	82.716	.000
Igala	1.320	.050	22.762	.000
Idoma	RC	-.023	82.710	.000
Religion				
Christians	.105	.105	20.418	.000
Moslems	.179	.179	76.920	.000
Hindi	.082	.082	15.699	.000
Bahai	0.50	.050	9.528	.000
Traditional African Religion RC	-.023	-.023	.3.070	.063
Other Instruments of Influence				
Films	0.333	.051	5.112	.005
Sexual Partner /spouse	0.164	.026	2.439	.286
Peer Group	RC			
Constant Adjusted R^2	.2411			

RESULTS

Results of Multivariate Analysis

Table 3 displays results based on multiple regression analysis of the three demographic variables of interest. The type of artificial contraceptive used is categorized as being influenced by safety, cost, availability, convenience, effectiveness and peer group influence as co-variates. Table 3 present OLS regression co-efficients for type of contraceptive use. With a few exceptions, the same set of independent variables are examined in both regression models. Discussions based on the three outcome variables, in the two tables will be undertaken simultaneously.

The striking differences observed in the succeeding descriptive analysis between type of Contraceptive use and the variables mentioned persists in the multivariate models. Table 3 shows that more Christians than Moslems use artificial contraception, and the low incidence of usage among Muslim women could be highly attributable to the religion.

Similar findings were observed by[29] in Bangladesh and Iran. Other explanatory variables that affected the probability of using contraception were wife's age, spousal age difference, the wife's education religion, and having a girl aged 8 - 16[25,8]. Other variables that influenced the choice were fertility preferences, wealth level and geographical location.

Myryar and Tabibian[30] attributed the fertility decline in Iran to important changes in the socio-economic composition of the population. These changes include a rise in the urbanization and literacy ratio, rise in age at first marriage and improvement in the levels of education, health and welfare of the population. Mirzaie[31] also noted other factors including the reduction in the infant mortality rate, rise in the relative cost of children, increase in literacy.

For Nigeria, the same is through for urbanization, public awareness about population problems, and Government Family Planning Programme[32]. The OLS regression analysis in Table 4 also confirms the above finding with respect to the use of Intra Uterine Contraceptive Device. It should be noted that Christian women tended to visit family planning clinics more than Muslim women, significant at P<.02. This impression of a significant difference between Christians and Moslems may be spurious one since the insertion of Intra Uterine Contraceptive device takes place in Family Planning Clinics by providers of such services. The low acceptability of other methods of contraceptive device could be attributable to religious barriers. Hence, we found the same pattern of association when ethnicity was entered into the equation. Edo, Yoruba and Ibo having a higher incidence of Artificial Contraceptive usage than the other minority tribes of the middle belt.

EMPOWERMENT AND CONTRACEPTION: BIVARIATE ANALYSIS

Knowledge of Contraceptive Methods

Knowledge of contraceptive methods was assessed by asking women to name the contraceptive methos that they knew about. A girl was considered to have some knowledge about a method if she could name a method without prompting. It was found in the study that knowledge about pill was almost universal in the study area irrespective of empowerment status; however, women's knowledge about other contraceptive methods rises with increase in both freedom of movement score and decision-making score. Only 19 per cent of women in the lowest empowerment category (for both indices mentioned condom, whereas 42 per cent of girls in the highest freedom of movement category, and 35 per cent in the highest decision making category mentioned condom without being prompted (Table 4). The difference in knowledge was found to be widest for IUD between the highest and the lowest categories of both the indices. Only 44 per cent of the girls in the freedom of movement category knew about IUD, while about 69 per cent women with freedom of movement score 3-4, and 71 percent of girls with freedom of movement score 5-6 had knowledge about the IUD. Similar result was observed between different categories of decision -making index. Knowledge of tubectomy and vasectomy was also highest among more empowered women even though knowledge about vasectomy as a method of contraceptive was generally found to be the lowest. Table 4 also shows that women with more empowerment reported higher number of methods of contraception.

Table 4: Knowledge about contraceptive methods by different level of empowerment

	Freedom of movement score			decision-making score		
Method	0-2 (n= 899)	3-4 (n=2542)	5-6 (n= 1526)	0 (n=563)	1-2 (n=563)	3-4 (n=137)
Any method						
Pill	96.2	98.6	99.1	97.9	98.7	98.1
condom	19.4	25.6	41.9	18.5	26.8	35.3
Injection	48.6	57.9	66.6	53.5	57.5	61.7
IUD	44.0	59.0	71.4	50.3	58.0	65.0
Vasectomy	2.9	2.4	7.7	1.6	3.0	6.0
Tubectomy	68.0	77.1	81.8	74.2	75.1	79.6
Traditional	5.5	7.1	13.4	4.6	7.3	11.4
	2.8	3.3	3.8	3.0	3.3	3..6

Current Contraceptive Use

Table 5 shows current use of contraception by different levels of empowerment (freedom of movement, the higher is the use of contraceptives, especially for modern methods ($p < 0.001$). Contraceptive use as whole was much higher among women in the highest empowerment group. About 44 per cent of women who scored the highest (5-6) in freedom of movement index were using any method compared to only 16.5 per cent of the women with lowest scores (0.2). A similar result was found in the case of the decision-making index.

Table 5: Contraceptive use by difference levels of empowerment

	Freedom of movement score			decision-making score		
Method	0-2 (n= 899)	3-4 (n=2542)	5-6 (n= 563)	0 (n=563)	1-2 (n=2267)	3-4 (n=2137)
Not using	83.5	71.6	56.4	83.7	72.6	61.6
Any method	16.5	28.4	43.6	16.3	27.4	38.4
Pill	7.7	10.3	16.7	5.3	11.3	13.1
condom	1.0	1.8	2.5	0.5	2.1	2.0
Injection	1.4	2.7	3.8	1.4	2.5	3.6
IUD	.9	2.8	2.9	1.2	2.2	3.1
Vasectomy	-	.1	.1	.4	0	0
Tubectomy	3.1	6.8	12.5	4.1	6.0	10.9
Traditional	2.3	3.9	6.1	3.4	3.4	5.4

DISCUSSION

Safety

The Spearman Rank Correlation co-efficient of the final measures of the Independent variables respectively for the entire sample (N = 800) are presented in Table 2. The results show a significant relationship (.95) between the Pill and effectiveness and safety. Further information from the social background of the respondents showed that more students from affluent homes and whose parents are educated tended to use the pill than those from less priviledged homes. The Moslem respondents tended to prefer other methods of contraception such as Intra Uterine Device to the Pill. Similar findings were found in Iran[33]. There was no significant relationship between ethnic group and pill usage.

Effectiveness

There was a high correlation (r =.95) between use of the pill and effectiveness and between use of the Intra-Uterine Device and effectiveness. Other responses obtained revealed that more students who used Intra Uterine Device had previous unwanted pregnancies than did those who used other methods of Contraception. Respondents who preferred the use of condom and other barrier methods did so for other reasons other than convenience such as safety, availability and peer group influence.

Convenience

There is a high correlation between Intra Uterine Device Usage (r =.77) and convenience. Most of these respondents (7%) who used barrier methods did so for convenience. The low incidence of usage of these barrier methods could be attributable to the fact that they tended to reduce libido.

Cost

There was a high correlation (r =.96) between the cost of a contraceptive and its use. More of the students who used the expensive contraceptives such as Jellies, Foams, Diaphragms were from affluent homes (see Table 3). Most of the respondents who preferred the Intra Uterine device did so because the services were quite cheap. Most of the students who claimed to use the pill did so because they had registered with a family planning clinic. A cross-price effect was found for the IUD, since clients were more likely to use the IUD than the pill if the cash price of the pill increased.

Availability

The high correlation (r = .96) between availability and the use of the pill was attributable to the fact that the pill is easier to purchase than the condom because of the stigma associated with the latter. Purchasing a condom in an over the counter store might give the impression to the seller that the consumer is wayward since the general Nigerian society frowns at its usage among youths. Most of the students (78%) who used the condom used it because it was easily available.

Peer Group Influence

There is a high correlation between peer group influence

(r = .80) and use of the pill and barrier methods such as the condom. Peer Group, films and sexual partners tended to have a strong influence on the user. This also depended on the degree of exposure of the user, her religious conviction as well as partner's socio-economic status. There is an inverse relationship between Peer group influence and religious conviction particularly among the Moslem students.

Many publications have documented the effects of information, education and communication (IEC) interventions, including both mass media and interpersonal communication efforts, on programme outputs and outcomes. Research demonstrating the effectiveness and cost-effectiveness of mass media in recruiting family planning clients has been conducted by[21,34]. Operational research demonstrating the effectiveness of interpersonal communication includes numerous examples of studies of professional providers[35-36] peer promoters and satisfied users[37].

Side effects is the major reason for discontinuation of the pill (44 percent) IUD (68 percent) and injectables (54 percent). Methods failure is another important reason for discontinuation among users of condom (12 percent) periodic abstinence (24 percent) withdrawal (14 percent) and the pill (7 percent). These data indicate that improved counselling is needed about possible side affects and correct method use.

The study of contraceptive use among university women in Edo State with reference to female undergraduates of the University of Benin and Edo State University Ekpoma, showed that most of the students had previous knowledge of contraception through friends, health workers, mass media and sex education. Majority of the students considered one factor or the other before choosing a contraceptive. The variables range from safety with a high correlation (r = .95), effectiveness, peer group influence, cost availability and convenience.

Family planning is one of the several primary health measures that can be delivered safely, effectively and cheaply through community based services situated on campus. Similar studies by Aziken et al[38] support same findings. Community based family planning programmes began more than two decades ago. While at first they were considered a radical departure from traditional, clinic based services, now the concept is widely accepted. The introduction of the Youth Advisory or counselling centre at the University of Benin Teaching Hospital is a step in the right direction, the same should be done in other universities.

The attitudes of elites, public servants, university teachers and students, journalists has changed, at least in the Anglophone countries, faster than might have been anticipated. Part of the explanation is the globalization of society, but most of it springs from the lack of confidence induced by a decade and half of grim economic news and the experience at family level of meeting new schooling and medical treatment costs. Most educated white collar workers now regard unrestricted population growth as threatening national and individual prosperity[19].

The rapid spread of the AIDS epidemic in sub-saharan African raises other issues concerning women's ability to protect themselves against sexually transmitted disease (STDs) and the AIDS virus. Data form Ghana reveal that the incidence of infection is much higher among female than males, and although the female proportion of reported AIDS cases declined between 1986 and 1992, seventy sevel percent of all reported AIDS cases in 1992 were female[39]. Female surplus of HIV/AIDS cases have been associated with the migration of women to work in the commercial sex industry in nearby countries, a factor that has been related to economic hardship, buttressed by underlying gender inequalities in employment opportunities[1]. Social expectations of multiple partners for men and social acceptance of male extramarital sexual activity-partly related to wives postpartum sexual abstinence[18, 22] - are indicative of the vulnerability to STDs and HIV is also associated with polygyny, mandatory widow inheritance, and men's dislike of the condom - the only available preventive method against sexual exposure to the AIDS virus aside form abstinence). Furthermore, the association of condom or contraceptive use with infidelity or promiscuity may prevent many women from initiating discussions with their husbands about sex and condom use[26, 40].

The other threat is the AIDS epidemic for a range of reasons. An obvious solution would seem to be a focus on using condoms for both fertility and AIDS control. The condom is not the preferred method of fertility control anywhere in Sub Saharan Africa[18,41]. To protect from AIDS it would have to be used consistently and this would frustrate even planned fertility. Condoms are least likely to be used in sexual relations between spouses or long term partners, just the relationships in which planned fertility is most likely to be required.

Finally, contraceptive use can increase if family planning providers emphasis[1] contraception as a means to improve a woman's and child's health[2] contraception

as a way of spacing births[21] contraception as a way of empowering women and[19] contraception as a major component of human development and social justice[42].

ACKNOWLEDGEMENTS

My special thanks goes to Ford foundation for funding this Research. My profound gratitude goes to Ms Coudou Bop, Yassine Fall and Mrs Juliet Djungu of the Association of African women for Research and Development (AAWORD) Dakar, Senegal for providing emotional supports throughout the trying period of this Research.

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