Sodeinde *et. al.* Babcock Univ. Med. J.2024 7(1):1-10
https://doi.org/10.38029/babcockuniv.med.j..v7i1.328
eISSN: 2756-4657

RESEARCH ARTICLE OPEN ACCESS

Contraceptive Utilization and Perceived Spousal Involvement among Female Employees of Child-bearing Age in a Private University in Ogun State, Nigeria

Utilization and Perceived Spousal Involvement in Contraceptive

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Submitted: 25th November 2023
Accepted: 12th January 2024
Published: 30th June 2024
ID: Orcid ID

Abstract
Objective: This study assessed the utilization and perceived spousal involvement in contraceptive use among female employees of child-bearing age in a private university in Nigeria.
Methods: This was a descriptive cross-sectional study of 270 women who were selected using a purposive sampling method. A structured interviewer-administered questionnaire was used to elicit data. Contraceptive utilization was assessed as ever or never utilized. Perception of male involvement was graded as good or poor using items on the questionnaire. Data analysis was done using IBM SPSS version 22 and presented as tables. *P*< 0.05 was taken as statistically significant.
Results: Participants' mean age was 35.3± 5.9 years. Most 236 (87.4%) of them had tertiary education. Four-fifths-219 (81.1%) had ever been counselled on family planning or utilized contraceptives 216 (80.0%). The majority 232 (85.9%) of the women had good perceived spousal involvement scores, while 38 (14.1%) of the women had poor perceived spousal involvement scores. There were statistically significant associations between receiving family planning counselling, spouse involvement in contraceptive choices, fear of side effects, and spousal refusal with the utilization of contraceptives and perception of spousal involvement (p<0.001 in all instances)
Conclusion: Receiving family planning counselling and spousal support positively influenced the utilization of contraceptives and the perception of male involvement, while the fear of contraceptive side effects had negative effects on both outcomes. There is a need to improve male engagement and female counselling in contraceptive use. Health education should also focus on debunking exaggerations of contraceptive side effects.

Keywords: Contraceptive utilization, Female employees, Perceived spousal involvement, Private University

Plain English Summary

Contraceptive use is important to help women space their children and it reduces death among them. However, contraceptive use is less common in Nigeria and other developing countries as compared to developed countries. Men play a vital role in helping their wives to make decisions and choose and utilize contraceptives. Unfortunately, men in developing countries contribute poorly to contraceptive practices. This study also found that women who had the support of their husbands in various ways and who received

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family planning counselling were more likely to use contraceptives. Such women also had a good perception of male involvement in contraceptive use. Furthermore, this study found that the fear of side effects of contraceptives could cause restricted involvement in contraceptive practices in both men and women. It is therefore important to improve on delivering messages to couples in the context of adequate information on the benefits of engaging in contraceptive practices and demystifying negative amplification of contraceptive side effects.

Introduction

Developing countries account for about 70% of the global population (1) which has been projected at about 10 billion by the year 2050 with these developing climes taking a much larger proportion of the population increase (2). Fertility levels in Sub-Saharan Africa (SSA) have defied birth control interventions (3) and these fertility levels increase at a yearly rate of 2.53% (4).

Contraception involves the utilization of drugs, surgical procedures, or devices to avert conception permanently or temporarily (5). The total fertility rate (TFR) is quite high in Nigeria at 5.3 children per woman (6, 7). This may be partially ascribed to low contraception use (6, 8) with the contraceptive prevalence rate (CPR) and family planning unmet need of 17% and 19% respectively among currently married women, many having extra children that they do not plan for and short birth intervals (6, 7). This accounts for the large population in the country estimated at 206 million individuals by 2020 with a population growth of 2.58 which is higher than the rest of SSA (9). It also partly contributes to poor maternal and child health outcomes (10, 11) with a Maternal Mortality Ratio (MMR) of 512 maternal deaths per 100,000 and an infant mortality rate of 67 per 1000 live births in the country (6). This MMR is similar to the statistics in other parts of SSA being reported at 553 maternal deaths per 100,000 live births, a figure 50 times more than the MMR for developed climes reported at 11 deaths per 100,000 live births (12).

Men are culturally regarded as the head of the family in many African communities and are adjudged to immensely influence the health of their spouses and children (13). The Nigerian Government established the maiden edition of the Nigerian National Population Policy in 1988 and it recognized the man as the family head who makes decisions on family size, health matters, and other related issues (14).

Though women are targeted for contraception use (15), fertility decisions are mostly taken by the man, who is more likely to desire more children (6). Male involvement in reproductive health leads to better maternal health outcomes in developing countries (16) but unfortunately, male involvement in reproductive health is poor in these climes (17, 18) including decisions about contraceptive use (19). Men are generally considered as disobliging when it comes to the issue of contraceptive use among their female partners (20). Several reasons have been documented to account for men's restricted involvement in contraceptive use such as perceived side effects, cultural norms and beliefs, conception that contraceptive is only a woman's business and limited choice for male contraceptives and preference for large family size among men (20). This study assessed utilization and perceived spousal involvement concerning contraceptive use among female employees of child bearing age in a university in southwest Nigeria.

Materials and Methods

Study Area, Study Design, Study Population, and Sample Size Estimation

This study was conducted at Babcock University, Ilishan-Remo, Ogun State, Nigeria. It is a private university owned by the Seventh-Day Adventist Church. The university commenced activity on September 17, 1959, as Adventist College of West Africa (ACWA). The Federal Government of Nigeria approved the university as one of the first three private universities in the country on the 20th of April, 1999. The university currently has a student population of about 10,000 and a staff population of about 1,500 excluding those on daily rates, wages, and fixed sum. The university is presently made up of 10 schools. The study participants were child-bearing-age female employees of the university. Those who were currently married and staying with their spouses and who have had at least one live birth within 5 years of study were included. However, those female employees who were medical or paramedical personnel were excluded. The minimum sample size was determined using Cochran's formula z^2pq/d^2. A standard normal deviation of 1.96, a prevalence of 15.8% being the proportion of women that depended on their spouses for the choice of contraceptive in a Nigerian study (21), and a margin of error of 5% was used for the calculation and this gave a minimum sample size of 204.4 which became 227.1 after correcting for a 10% of non-response. However, a total of 270 female employees participated in the study

Sampling Method, Data Collection Tools, and Techniques, Study Measures

The schools under the Benjamin S. Carson Senior College of Health and Medical Sciences were excluded since the college includes essentially medical and paramedical personnel. Seven (7) schools were, therefore, eligible for the university. These were the School of Computing and Engineering Sciences, School of Education and Humanities, School of Law and Security Studies, School of Management Sciences, School of Science and Technology, Veronica Adeleke School of Social Sciences, and College of Postgraduate Studies. The purposive sampling method was then used to select eligible participants across the schools. Women who met the inclusion criteria from other administrative and supportive departments such as Bursary, Registry, Food services etc were also interviewed until the required sample size was achieved.

A structured interviewer-administered questionnaire was used to collect data with the help of trained research assistants. The instrument was constructed from a review of previous similar studies (18, 22, 23). The questionnaire sought information about the participants' socio-demographic characteristics, their utilization of contraceptives, and their perceived spousal involvement in contraceptive utilization.

Data Management and Analysis

The questionnaires were crosschecked for errors and cleaned. Data were entered into Statistical Package for Social Sciences (SPSS) software version 22 (IBM SPSS Inc., Chicago, IL) for analysis. Utilization of contraceptives was assessed as a yes or no question. Composite variables (aggregate scores) for perceived spousal involvement in contraceptives were computed from items (activities) on the questionnaire. A total of 8 items were assessed. Anyone who perceived that the spouse participated in at least 4 out of the 8 activities was considered to have a good perception of spousal involvement in contraceptives while those who perceived that their spouses participated in less than 4 activities were considered to have a poor perception of spousal involvement in contraceptives. Data summary was done using mean, standard deviation, and proportions. Chi-squares were used to test for associations between utilization/perceived spousal involvement in contraceptives and other categorical variables. The level of significance was set at 5%. The analyzed data were presented as frequency tables.

Results

Table 1 shows the socio-demographic characteristics of the participants. The highest proportion 120 (44.4%) of participants was in the age group 25-34 years. The mean age was 35.3± 5.9 years. Most 236 (87.4%) of the participants had tertiary education. About three-quarters 196 (72.6%) of the participants had three children or fewer.

Table 1: Socio-demographic Characteristics of Participants

Variable	Frequency	Percentage (%)
Age (Years)		
≤24	20	7.4
25-34	120	44.4
35-44	102	37.8
≥45	28	10.4
Educational Status		
Primary	3	1.1
Secondary	31	11.5
Tertiary	236	87.4
Religion		
Christianity	226	83.7
Islam	33	12.2
Traditional Religion	11	4.1
Ethnicity		
Yoruba	197	73.0
Igbo	56	20.7
Hausa	10	3.7
Others	7	2.6
Number of Living Children		
≤3	196	72.6
≥4	74	27.4

Table 2 shows the utilization of contraceptives among the participants. Four-fifths- 219 (81.1%) had ever been counselled on family planning or utilized contraceptives 216 (80.0%). However, all of them had at one time or another declined to use contraceptives or were unable to utilize the desired form of contraceptive. The reasons that were given for ever declining contraceptives or not being able to get the desired type of contraceptive were fear of side effects 31 (11.5%), not knowing how to use the contraceptives (e.g. female condom) 23 (8.5%), spousal refusal 15 (5.6%) and difficulty accessing the contraceptives 2 (0.7%).

Table 2: Utilization of Contraceptives among participants

Variable	Frequency	Percentage
Ever utilized contraceptives		
Yes	216	80.0
No	54	20.0
Ever Counseled on Family Planning		
Yes	219	81.1
No	51	18.9
Utilized Contraceptives		
Female condom	66	24.4
Spouse uses a male condom	71	26.3
IUCD	27	10.0
Oral Contraceptive Pills	118	43.7
Injectables	60	22.2
Ever declined or unable to utilize any form of Contraceptive		
Yes	270	100.0
No	0	0.0
Reason for Not Utilizing Contraceptives		
Fear of side effects		
Yes	31	11.5
No	239	88.5
Spousal refusal		
Yes	15	5.6
No	255	94.4
Difficulty accessing contraceptives		
Yes	2	0.7
No	268	99.3
Don't know how to use contraceptive of choice		
Yes	23	8.5
No	247	91.5

Table 3 shows the perceived involvement of spousal involvement in contraceptive use. Most 241 (89.3%) of the women reported that their spouses were involved in the choice of the contraceptives they used. Two-thirds 182 (67.4%) of the participants reported that their spouses also utilized contraceptives. Four-fifths 219 (81.1%) of the participants reported that their spouses knew the type of contraceptives they were currently using while 189 (70.0%) of the women reported that their spouses had previously accompanied them to a family planning clinic at one time or the other. The majority 232 (85.9%) of the women had good perceived involvement scores while 38 (14.1%) of the women had poor perceived involvement scores.

Table 3: Perceived Spousal Involvement

Variable	Frequency	Percentage
Spouse is involved in the choice of Contraceptive		
Yes	241	89.3
No	29	10.7
Spouses also utilize contraceptive		
Yes	182	67.4
No	88	32.6

Spouses do not see contraceptive use as essentially a woman's business		
Yes	225	83.3
No	45	16.7
Spouse in favour of contraceptive use		
Yes	225	83.3
No	45	16.7
Spouse asks about contraceptive use regularly		
Yes	158	58.5
No	112	41.5
Spouse knows the modern contraceptive you currently use		
Yes	219	81.1
No	51	18.9
Ever been accompanied by the spouse to a family planning clinic		
Yes	189	70.0
No	81	30.0
Spouse knows your history of contraceptive use		
Yes	187	69.3
No	83	30.7
Perceived Involvement Score		
Good Perception	232	85.9
Poor Perception	38	14.1

Table 4 shows that those who had ever had counselling on family planning and whose husbands were involved in contraceptive choices were more likely to utilize contraceptives (p<0.001). However, those who did not know how to utilize some contraceptives, who were afraid of the side effects of contraceptives, and whose husbands refused the use of contraceptives were less likely to utilize contraceptives (p<0.001).

Table 4: Participants' characteristics and bivariate relationship with uptake of contraceptives among participants

Variable	Uptake of contraceptives		p-value
	Yes	No	
Age			
≤34	108 (77.1)	32 (22.9)	
≥35	108 (83.1)	22 (16.9)	0.223
Education			
Tertiary	189 (80.1)	47 (19.9)	
Non-tertiary	27 (79.4)	7 (20.6)	0.927
Religion			
Christian	183 (81.0)	43 (19.0)	
Non-Christian	33 (75.0)	11 (25.0)	0.365
Ethnicity			
Yoruba	157 (79.7	40 (20.3)	
Non-Yoruba	59 (80.8)	14 (19.2)	0.837
Number of Living Children			
≤3	159 (81.1)	37 (18.9)	
≥4	57 (77.0)	17 (23.0)	0.453
Ever counselled on family planning			
Yes	188 (85.8)	31 (14.2)	
No	28 (54.9)	23 (45.1)	< 0.001
Don't know how to use the desired contraceptive			
Yes	1 (4.3)	22 (95.7)	
No	215 (87.0)	32 (13.0)	< 0.001
Afraid of side effects of contraceptives			

Yes	0 (0.0)	31 (100.0)	
No	216 (90.4)	23 (9.6)	<0.001
Spousal refusal			
Yes	0 (0.0)	15 (100.0)	
No	216 (80.0)	54 (20.0)	<0.001
Difficult accessibility of contraceptives			
Yes	2 (100.0)	0 (0.0)	
No	214 (79.9)	54 (20.1)	0.478
Spouse involved in the choice of contraceptives			
Yes	216 (87.4)	31 (12.6)	
No	0 (0.0)	23 (100.0)	<0.001

Table 5 shows that those who had ever received counselling on family planning were more likely to report a good perception of male involvement in contraceptive use (p<0001 in all situations) Also, those who did not know how to use desired contraceptives, who were afraid of side effects and whose spouses refuse the use of contraceptives at some times were less likely to report good male involvement in contraceptive use (p<0.001 in all situations).

Table 5: Participants' characteristics and bivariate relationship with perception of male involvement in contraceptive use

Variable	Perception of male involvement		p-value
	Good n (%)	Poor n (%)	
Age			
≤34	116 (82.9)	24 (17.1)	
≥35	116 (89.2)	14 (10.8)	0.132
Educational status			
Tertiary	204 (86.4)	32 (13.6)	
Non-tertiary	28 (82.4)	6 (17.6)	0.522
Religion			
Christian	194 (85.8)	32 (14.2)	
Non-Christian	38 (86.4)	6 (13.6)	0.927
Ethnicity			
Yoruba	169 (85.8)	28 (14.2)	
Non-Yoruba	63 (86.3)	10 (13.7)	0.914
Number of Living Children			
≤3	169 (86.2)	27 (13.8)	
≥4	63 (85.1)	11 (14.9)	0.818
Ever counselled on Family Planning			
Yes	204 (93.2)	15 (6.8)	
No	28 (54.9)	23 (45.1)	<0.001
Don't know how to use the desired contraceptive			
Yes	1 (4.3)	22 (95.7)	
No	231 (93.5)	16 (6.5)	<0.001
Afraid of Side effects			
Yes	16 (51.6)	15 (48.4)	
No	216 (90.4)	23 (9.6)	<0.001
Spousal refusal			
Yes	0 (100.0)	15 (100.0)	
No	232 (91.0)	23 (9.0)	<0.001

Discussion

This study shows that the majority of the participants had utilized contraceptives at some point in time. Most of the women reported good involvement of their spouses in contraceptive use particularly in making choices about the type of contraceptive to be used. Women who had ever had counselling on family planning were more likely to have a good perception of spousal involvement in contraceptive use. However, those who did not know how to utilize some contraceptives, who were afraid of the side effects of contraceptives, and

whose husbands refused the use of contraceptives were less likely to have a good perception of male involvement in contraceptive use.

The utilization of modern contraceptives in this current study was observed to be high since four out of five of the women were reported to have utilized modern contraceptives. This was at variance with what was reported in the National Demographic Health Survey for the country which documented that only 24% of currently married women had ever used contraceptives (24). The high uptake of modern contraceptives in this current study also differs from what was reported in a study in Port-Harcourt South-south Nigeria where only 5.6% of the women were reported to utilize modern contraceptives (21). Findings in this current study also differ from what is obtained in other parts of SSA. For instance, research by Isaac Boadu assessed the utilization of modern contraceptives among women of childbearing age in 37 SSA countries using data from each country's Demographic and Health Survey. The study reported a poor uptake of modern contraceptives among SSA countries ranging from 3.5% in the Central Africa Republic to 49.7% in Namibia with Nigeria having a modern contraceptive prevalence rate of 10.5% in the study (25). However, findings in this current study are similar to statistics from different parts of Europe with Finland, the United Kingdom, and Switzerland having contraceptive prevalence rates of 78%, 71.7%, and 71.5% respectively (26), while the United States of America was reported with a contraceptive prevalence rate of 65.3% (27). The high prevalence of contraceptive use in this study may be because the study was conducted among university employees, with many of them having tertiary education who were also probably well exposed to information on contraceptive use. Research has shown that women with higher educational status are more likely to utilize contraceptives (28). Other factors that may be responsible for the high prevalence of contraceptive use included the presence of a teaching hospital in the university which has an established and accessible contraceptive clinic and employees receiving discounts when seeking health care at the teaching hospital.

The majority of participants in this study reported good involvement in contraceptive use by their spouses especially in choosing the type of contraceptives to be utilized. A good number of the women also reported that their spouses know the type of contraceptives they use and accompany their wives to contraceptive clinics. This pattern of male involvement was also reported in studies conducted in Uganda (20) and Ethiopia (29). Husbands getting involved in decision-making about contraceptive use as reported in this study promises a lot of benefits since decision-making is considered a shared responsibility of both spouses (20). This reported high male involvement may have contributed to the high uptake of contraceptives that was reported among the women since male involvement is shown to correlate with high contraceptive use among women. It helps both in accepting contraceptives and its effective and sustained use (30).

Many of the husbands were reported to ask questions about contraceptives in this study. This particularly must have contributed to participants' high utilization of contraceptives since a direct relationship exists between spousal communication and the uptake of contraceptive methods (31). Agreement on the utilization of contraceptives between spouses is strategic to decreasing the unmet need for family planning (32).

Counselling on family planning was observed to improve both the utilization of contraceptives among women in this current study and also their perception of male involvement. In agreement with this finding, studies in Ethiopia (33) and India (34) reported that family planning counselling improves the utilization of contraceptives. In the same vein, a direct association was reported between exposure to family planning messages on different mass media channels and the utilization of contraceptives in a study conducted in Sierra Leone (35). This positive relationship between family planning message and contraceptive use may be because the women were well equipped with knowledge that enabled them to appreciate the benefits of contraceptive use while debunking misconceptions about the subject. They were therefore, able to make informed decisions concerning contraceptive use.

Fear of possible side effects of contraceptives was associated with decreased use of contraceptives in this current study. Women who had reservations due to fear of side effects also reported poor male involvement in contraceptive use. This finding gave some credence to what was reported by Kabagenyi that fear of side effects of contraceptives was an important reason for the restricted involvement in contraceptive use (20). This therefore calls for intervention in the context of health education to demystify exaggerations about the side effects of contraceptives.

Limitations of this study include the difficulty in assessing true temporal relationships between the participants' characteristics and perceived spousal

involvement in contraceptive use due to the cross-sectional design of the study. Also, there might have been recall bias in the attempt of the women to remember how their spouses were involved in contraceptive use. Future studies may consider mixed quantitative and qualitative approaches in exploring women's views about male involvement in contraceptive use.

Conclusion

Receiving family planning counseling and spousal support had a positive influence on the utilization of contraceptives and the perception of male involvement while the fear of contraceptive side effects had negative effects on both outcomes. There is a need to improve male engagement and female counselling in contraceptive use. Health education should also focus on debunking exaggerations of contraceptive side effects.

List of Abbreviations

BUHREC:	Babcock University Health Research and Ethics Committee
CPR:	Contraceptive Prevalence Rate
IBM:	International Business Machine
MMR:	Maternal Mortality Ratio
SPSS:	Statistical Package for Social Sciences
SSA:	Sub-Saharan Africa
TFR:	Total Fertility Rate

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Babcock University Health Research and Ethics Committee (BUHREC 547/20). Verbal and written informed consents were obtained from each participant. Strict confidentiality was maintained throughout the study.

Consent for Publication

The authors hereby transfer all copyright ownership exclusively to the journal, if this work is accepted and published by the journal.

Availability of Data

Data for this work are available with the authors and may be presented on request

Conflicts of Interest

The authors have declared no conflict of interest.

Funding

No funding was received for this work.

Authors Contributions

KS conceived the research idea, analyzed the data, and wrote the first draft of the manuscript. AO, EA, BA, EIE, KO, AOg, EO, and EOy collected the data. All authors reviewed the manuscript and approved the final submission

Acknowledgement

The authors wish to acknowledge the participants for their contributions to the success of this work.

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