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A comparative study of the correlates of male involvement in family planning among men in urban and rural communities of Sokoto State, Nigeria

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ABSTRACT

Background: Nigeria has one of the fastest-growing populations in the world due to its high fertility rate coupled with a low contraceptive prevalence rate (CPR) which is currently 17%. One of the factors responsible for this is a lack of male involvement (MI) in family planning (FP). **Aim**: This study was conducted to determine and compare the level of MI in FP and the correlates of MI in FP in urban and rural communities of Sokoto State, Nigeria. **Materials and Methods**: A comparative cross-sectional study was employed to investigate 846 married men selected via a multi-staged sampling technique. Data was collected using a structured interviewer-administered questionnaire and was analyzed using IBM® SPSS version 23. **Results:** The contraceptive prevalence rate was 49.4% in urban areas and 46.3% in rural areas (p= 0.371). More than half (58.4%) of the respondents in the urban areas and a little below half (48.2%) of those in the rural areas were highly involved in FP (p= 0.003). The correlates of MI in FP in both groups were the occupation of the respondents and their spouses, social class and ever use of a FP method. **Conclusion**: The CPR was good, but MI in FP was low in the two areas. Sokoto State Government and the Local Government Areas should continue to raise awareness and provide information on the benefits and the need for more males to be involved in FP. This could be done through the use of information, education and communication materials and public enlightenment programmes.

Keywords: Male involvement, family planning, contraceptive methods, Sokoto

INTRODUCTION

One of the many grave problems developing countries have to address is their rapid and uncontrolled population growth.[1] Nigeria, the most populous black nation, has one of the fastest-growing populations in the world, making it the seventh most populous country worldwide.[2] It is predicted that by 2050, Nigeria's population will surpass that of the United States of America, making it the third-most populous country in the world.[3,4] Its population is expected to reach 900 million by 2100.[3,4] This rapid increase in population is of grave concern because it prevents the attainment of sustainable development goals.[5] In Nigeria, men desire more children than women (7.2 versus 6.1 children respectively)[6] making it essential to involve them in family planning (FP) if a population reduction is to be achieved. Overall, 77% of married men aged 15-49 in Nigeria want another child, and 44% want the child within two years.[6] Nigerian women have 0.5 children more than their desired number of 4.8 children.[6] This implies that the total fertility rate (TFR) is 10% higher than it would be if unwanted births were avoided.[6] However, women cannot have their desired number of children because of gender dynamics within husband-wife relationships.[7] The country's contraceptive prevalence rate (CPR) is among the lowest in Africa (17%); Sokoto State has the lowest CPR in the country (2.1%).[6] The unmet need is 19% in Nigeria and 13% in Sokoto State.[6] Researchers have proffered several

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reasons to explain why, despite the high fertility rate, coupled with women wanting fewer children than they already have, acceptance and utilization of FP methods remain low[1,2]; prominent among the factors is the lack of Male Involvement (MI) in FP.[1,8]

Male involvement in FP regards men's knowledge of FP, attitudes about contraception, communication with partners about FP, choices about appropriate contraceptive methods, and giving emotional and behavioural support to their partners' contraceptive use.[9] The prevalence of discussing FP with the wives varied across the globe; it was as low as 19% in New Guinea[10] 43% in Pakistan,[10] 87.2% in Southwest Ethiopia,[11] 77.8% in Enugu,[12] and 69.2% in Plateau.[13] Research done in Bangladesh has shown that the age of the husband, age of the wife, number of living children, wife's education, wife's occupation, husband's education, husband's occupation, couple's income, knowledge of contraceptive methods, social networking and inter-spousal communication were significantly associated with MI in FP.[9] In a study done in Ogun State, MI was associated with education, occupation, average monthly income, access to the media, duration of the marriage, number of living children, approval of FP, current use of a male contraceptive method and having a wife who works outside the home.[14]

It was reported that men want to participate in FP and will access services if they are made available,[15] thus indicating the need for the current FP programs to be modified to be suitable for use by men with the hope that their involvement in FP programs will give them a better chance of success in the future.[15] Hence, it is prudent to ascertain the level of MI in FP and the factors that influence their involvement to suggest ways of making men more involved in FP. In Northern Nigeria, data on MI in FP are scarce; research needs to be done in Sokoto State, especially where there is low CPR and a strong patriarchal nature. Also, comparative studies on this topic in urban and rural men are generally scanty, and there is no known published comparative study done in the Northern part of the country. We hypothesized a significant difference in male involvement in FP in urban and rural communities of Sokoto State. This study was conducted to determine and compare the level of MI in FP and the correlates of MI in FP in urban and rural communities of Sokoto State, Nigeria.

MATERIALS AND METHODS

Study Design, Population and Area

The study was a comparative cross-sectional design conducted in the urban (Sokoto North Local Government Area) and rural (Gwadabawa Local Government Area) communities of Sokoto State in May 2019. Sokoto North is one of the five urban LGAs in Sokoto State,[16] whereas, Gwadabawa is one of the eighteen rural LGAs.[16] Located within Gwadabawa LGA are the School of Health Technology, many secondary and primary schools, a General Hospital, other public health facilities such as Primary Health Care (PHC) centres and patent medicine stores. Organizations run FP programs and projects in some of the LGAs in the State (study LGAs inclusive).

The study population consisted of married men in Sokoto State. Married men whose wives were within the reproductive age group (15- 49 years) and who lived in the selected study areas during the study period were included. Men who were married for less than one year in the chosen study area during the study period were excluded. Men and/or their wives with a history of infertility in the past five years were also excluded.

Sample Size Estimation and Sampling Technique

The estimator for comparative cross-sectional study design for proportions was used to calculate the minimum sample size required for the study[17] using prevalence rates of 99.4% and 95.6% obtained in urban and rural areas, respectively, in a previous survey.[2] The minimum sample size was 381, and allowing for a 10% non-response, the final minimum sample was 423 per group.

A multistage sampling technique was used to select respondents for the study. In stage 1, Sokoto North LGA (urban) and Gwadabawa LGA (rural) were chosen using a simple random sampling technique by balloting. In stage 2, two wards were selected from each of the selected LGAs by simple random sampling technique (balloting). In stage 3, one settlement was chosen from each of the four wards by a simple random sampling technique (balloting). Proportionate allocation (PA) of respondents to be enrolled in each of the settlements in each group (urban and rural) was done using the calculated sample size per group, which was 423. In stage 4, a sampling frame was obtained; systematic random sampling was used to enrol households to get respondents for the study.

Data Collection and Analysis

Data were collected using a 40-item structured interviewer-administered questionnaire adapted from previous studies on male involvement in FP.[1,5,11,18-21] The validity of the questionnaire was assessed by checking for content validity and internal consistency. The questionnaire was pretested by the principal researcher and the trained research assistants after the conclusion of the training to assess the feasibility of the use of the instrument, familiarize the research assistants with it, and determine the average time needed to complete a questionnaire. Adjustments were made to some questions based on observations noted during the pretest.

Data were analyzed using IBM SPSS version 23 computer statistical software package. The dependent variable was male involvement in FP. The independent variables were sociodemographic characteristics of the married men and their wives, ever use and current use of FP methods by the respondents and their wives. The social class of the couple was computed using Oyedeji's method[22]; four variables were used in the computation: the husband and wife's occupation and educational level. Ever use of FP by a couple was when either the wife or husband has ever used a FP method. The current use of FP by a couple was when either the wife or husband was using a FP method at the time of the survey; this was referred to as the contraceptive prevalence rate.

Male involvement in FP is discussing with the wife concerning FP, the FP method to use and choosing it jointly, discussing with the wife on the number of children to have and making the decision together, discussing with the wife on child spacing and making the decision jointly, accompanying wife to the FP clinic and provision of money for FP services. Male involvement was assessed by responses to 12 questions about previous actions that signify involvement in FP. Some questions had two possible responses: *yes,* and *no,* while others had six responses: husband only, wife only, both husband and wife, husband's relatives, wife's relatives and others. Point values for each question were assigned as follows: has done an action/ action was done by both husband and wife = 1 and has never done an action/ action done by anyone besides both husband and wife= 0. Scores on the total male involvement scale ranged from 0 to 12. A score of ≥60% (8-12 points) was categorized as high involvement in FP, and a score of ≤59% (0-7 points) was classified as low male involvement in FP.[19] Frequencies and proportions were used to summarise qualitative variables, while mean/median and standard deviation/interquartile range were used to summarise the quantitative variables. Pearson chi-square test was used to compare qualitative variables in the urban and rural groups; while the independent *t*-test and Mann-Whitney U test were used to compare quantitative variables. All levels of significance were set at $p < 0.05$.

Ethical Consideration

Institutional ethical clearance was obtained from the Ethical Committee of Sokoto State Ministry of Health, Sokoto, Nigeria. Permission to administer the questionnaires was obtained from the management of the Local Government Areas concerned, and informed consent was obtained from the participants before commencing questionnaire administration.

RESULTS

Sociodemographic characteristics and reproductive profile of respondents

A total of 846 questionnaires were administered to the respondents (423 in urban and 423 in rural areas). All were filled (giving a response rate of 100%) and valid for use after data cleaning. The majority of the respondents (54.1% in urban areas and 56% in rural areas) were in the age group 35-44 years. The difference in the distribution of the age groups in the two groups was statistically significant (p= 0.002). A larger proportion of respondents in the two areas (urban = 47%, rural = 43%) had tertiary education. A higher proportion of the respondents in rural areas were civil servants/ private employees compared to their urban counterparts. The differences in the distribution of occupation and educational level of respondents in both groups were statistically significant (Table 1).

Most of the respondents' wives in both groups (urban = 61.5%, rural = 58.4%) were between 25-34 years old. The difference in the age distribution in the two groups was statistically significant (p= 0.007). A higher proportion of the respondents in the rural areas have been married for at least eleven years compared to those in the urban areas (42.8% vs 35.7%), and the difference in this distribution in the two groups was statistically significant (p= 0.035).

Table 1: Sociodemographic characteristics of the respondents

Sociodemographic characteristics	Urban group (n = 423) Frequency (%)	Rural group (n = 423) Frequency (%)	Test Statistics	p-value
Age group (years)				
25-34	39 (9.2)	61 (14.4)	χ^2= 17.378	0.002*
35-44	229 (54.1)	237 (56.0)		
45-54	91 (21.5)	95 (22.5)		
55-64	57 (13.5)	27 (6.4)		
65-74	7 (1.7)	3 (0.7)		
Mean ± SD	43.93 ± 8.5	42.26 ± 7.5	t = 3.028	0.003*
Tribe				
Hausa	271 (64.1)	373 (88.2)	χ^2= 76.221	0.001*
Yoruba	95 (22.5)	19 (4.5)		
Ibo	27 (6.4)	10 (2.4)		
Others (e.g. Nupe, Ebira)	30 (7.1)	21 (5.0)		
Religion				
Islam	386 (91.3)	412 (97.4)	χ^2= 14.930	< 0.001*
Christianity	37 (8.7)	11 (2.6)		
Occupation				
Civil servant/ private employee	160 (37.8)	187 (44.2)	Fe χ^2	0.001*
Trader	120 (28.4)	128 (30.3)		
Artisan	104 (24.6)	55 (13.0)		
Farmer	20 (4.7)	46 (10.9)		
Student	5 (1.2)	1 (0.2)		
Unemployed	0 (0)	1 (0.1)		
Others (e.g., Labourer)	14 (3.3)	5 (1.2)		
Educational level				
Quranic	91 (21.5)	68 (16.1)	χ^2= 0.968	0.012*
Primary	29 (6.9)	49 (11.6)		
Secondary	104 (24.6)	124 (29.3)		
Tertiary	199 (47.0)	182 (43.0)		
Age at first marriage (years)				
≤25	3 (0.7)	11 (2.6)	Fe χ^2	< 0.001*
26-30	101 (23.9)	160 (37.8)		
31-35	233 (55.1)	233 (55.1)		
36-40	77 (18.2)	19 (4.5)		
≥41	9 (2.1)	0(0)		
Type of marriage				
Monogamous	287 (67.8)	263 (62.2)	χ^2= 2.993	0.084
Polygamous	136 (32.2)	160 (37.8)		

χ^2- Pearson's Chi-square test, t- Independent t-test, Fe- Fisher's Exact χ^2 *Statistically significant (p < 0.05)

A larger proportion of the couples in both groups (urban = 33.3%, rural = 36.6%) were in social class III. A higher proportion of those in the rural areas (69.6%) intended to have at least 5-9 children compared to those in the urban areas (46.2%) [Table 2].

Male involvement in family planning of the respondents

About half (49.4%) of the couples in the urban areas were currently using a FP method at the time of the survey compared to 46.3% of their rural counterparts. Implants, pills and injectables were the commonest presently used methods in both groups, and the difference in the distribution of methods used in the two groups was statistically significant (p< 0.001) [Table 3].

Table 2: Sociodemograhic characteristics of the respondents and their wives

Sociodemographic characteristics	Urban group (n = 423) Frequency (%)	Rural group (n = 423) Frequency (%)	Test Statistics	p-value
Age group of wives (years)				
15-24	77 (18.2)	112 (26.5)	χ^2= 10.041	0.007*
25-34	260 (61.5)	247 (58.4)		
35-44	86 (20.3)	64 (15.1)		
Mean ± SD	29.44 ± 5.3	28.54 ± 5.4	t = 2.448	0.015
Duration of marriage (years)				
≤10	272 (64.3)	242 (57.2)	χ^2= 4.462	0.035*
≥11	151 (35.7)	181 (42.8)		
Median (IQR)	8.00 (8)	9.00 (7)	MWU	0.053
Wife's educational level				
Quranic	123 (29.1)	131 (31.0)	χ^2= 67.614	0.001*
Primary	4 (0.9)	60 (14.2)		
Secondary	201 (47.5)	187 (44.2)		
Tertiary	95 (22.5)	45 (10.6)		
Wife's occupation				
Unemployed	166 (39.2)	177 (41.8)	χ^2= 101.565	0.001*
Trader	110 (26.0)	99 (23.4)		
Civil servant	100 (23.6)	55 (13.0)		
Student	43 (10.2)	15 (3.5)		
Artisan	1 (0.2)	76 (18.0)		
Others (e.g., Nanny, Baker)	3 (0.7)	1 (0.2)		
Social class of the couple				
SC I	16 (3.8)	12 (2.8)	χ^2= 3.961	0.411
SC II	76 (18.0)	60 (14.2)		
SC III	141 (33.3)	155 (36.6)		
SC IV	130 (30.7)	142 (33.6)		
SC V	60 (14.2)	54 (12.8)		
No of living children				
1-4	266 (62.9)	230 (54.3)	χ^2= 7.263	0.026*
5-9	118 (27.9)	136 (32.2)		
≥10	39 (9.2)	57 (13.5)		
Median (IQR)	3.00 (4)	4.00 (6)	MWU	0.001*
No of children intended to have	**n = 368**	**n = 385**		
1-4	190 (51.6)	116 (30.1)	Fisher's Exact	< 0.001*
5-9	170 (46.2)	268 (69.6)		
≥10	8 (2.2)	1 (0.3)		
Mean ± SD	4.56 ± 1.7	5.21 ± 1.5	t = -5.536	< 0.001*

χ^2- Pearson's Chi-square test, t- independent t-test, MWU- Mann-Whitney U test, IQR- Interquartile range, *Statistically significant (p < 0.05)

For the majority of the respondents in the urban areas (90.0%), the reason given for using an FP method was to space birth compared to 74.5% in the rural areas (p <0.001). The most common reason for not using any FP method at the time of the survey in both groups was that the wife was currently pregnant (64.0% vs 57.7%, p= 0.175). Other common reasons cited in both groups were religion/ culture, lack of interest to use and desire for more children (p= 0.703, p= 0.981 and p= 0.046, respectively) [Table 4]. A higher proportion of the respondents in the urban areas (76.4%) than in the rural areas (64.5%) had a discussion with their wives on FP in the last year, and this difference was statistically significant (p<0.001); a minor proportion of the respondents in the two groups initiated such a discussion. A minority of the respondents in the two groups had provided money for FP services and accompanied their wives to the FP clinics (p< 0.001 and p= 0.093, respectively). More than half (58.4%) of the respondents in the urban areas compared with the minority (48.2%) of those in the rural areas were highly involved in FP; this difference was statistically significant [Table 5].

Table 3: Pattern of family planning method used by the respondents and their wives

Pattern of family planning method used	Urban group (n = 423) Frequency (%)	Rural group (n = 423) Frequency (%)	Test Statistics	p-value
Ever use of a family planning method by the couple	**n = 423**	**n = 423**		
Yes	335 (79.2)	322 (76.1)	χ^2= 1.151	0.283
No	88 (20.8)	101 (23.1)		
Current use of a family planning method by the couples				
Yes	209 (49.4)	196 (46.3)	χ^2= 0.801	0.371
No	214 (50.6)	227 (53.7)		
Type of family planning method currently used by the couples				
Implants	103 (49.3)	75 (38.3)	Likelihood ratio	0.001*
Pills	42 (20.1)	69 (35.2)		
Injectables	35 (16.7)	23 (11.7)		
Male condom	9 (4.3)	3 (1.5)		
Safe period	6 (2.9)	1 (0.5)		
IUCD	3 (1.4)	1 (0.5)		
Withdrawal	3 (1.4)	10 (5.1)		
Periodic abstinence	3 (1.4)	13 (6.6)		
Female sterilization	3 (1.4)	0 (0)		
Female condom	1 (0.5)	1 (0.5)		
Lactational amenorrhoea	1 (0.5)	0 (0)		
Reasons for choice of method**	**n = 209**	**n = 196**		
It is very effective	129 (61.7)	93 (47.4)	χ^2= 8.320	0.004*
It can easily be found	123 (58.9)	108 (55.1)	χ^2= 0.580	0.446
It has few side effects	96 (45.9)	104 (53.1)	χ^2= 2.056	0.152
It does not have side effects	65 (31.1)	59 (30.1)	χ^2= 0.047	0.828
It is cheap	42 (20.1)	43 (21.9)	χ^2= 0.207	0.649
Others (e.g., last delivery was via CS	10 (4.8)	0 (0)	Fisher's Exact	0.002*
Source of FP method	**n = 196**	**n = 172**		
Public hospital	99 (50.5)	92 (53.5)	χ^2= 12.651	0.002*
Private hospital	56 (28.6)	25 (14.5)		
Drug store (chemist)	41 (20.9)	55 (32.0)		

** Multiple responses, χ^2 - Pearson's chi-square test

Correlates of male involvement in family planning

In the urban areas, the occupation and educational level of the respondents and their wives, age at first marriage, social class of the couple, and ever or current use of a FP method were the correlates of MI in FP. A higher proportion (64.8%) of those that had formal education were highly involved in FP compared to 35.2% of those with informal education (p<0.001). Similarly, 67.5% of current users of a FP method were highly involved in FP compared to 49.5% of those not currently using any form (p<0.001) [Table 6].

In the rural areas, the age of the respondents, occupation of the respondents and their wives, type of marriage, duration of the marriage, number of living children, social class of the couple, and ever use of a FP method were found to influence MI in FP. The majority (75.7%) of men whose wives were employed in the formal sector were highly involved in FP compared to 41.5% and 44.1% of those whose wives were employed in the informal sector and unemployed, respectively (p<0.001). Half (50.9%) of the respondents who had ever used a FP method were highly involved in FP compared to 39.6% of those who had never used a method (p= 0.047) [Table 7].

Table 4: Purpose of using a family planning method, reasons for currently not using any family planning method and willingness to use by the respondents

Variables	Urban n (%)	Rural n (%)	Test statistics	p-value
Purpose of using a FP method**	**n = 209**	**n = 196**		
To space birth	188 (90.0)	146 (74.5)	$\chi^2 = 16.726$	<0.001*
To achieve the desired family size	124 (59.3)	139 (70.9)	$\chi^2 = 5.966$	0.015*
To avert potential adverse effects of high fertility on the woman's health	113 (54.1)	95 (48.5)	$\chi^2 = 0.872$	0.351
To avoid unwanted pregnancy	107 (51.2)	86 (43.9)	$\chi^2 = 2.172$	0.141
To promote child health and improve the quality of childcare	95 (45.5)	87 (44.4)	$\chi^2 = 0.047$	0.829
To have Sexual fulfilment	66 (31.6)	57 (29.1)	$\chi^2 = 0.298$	0.585
To improve my family's financial condition	63 (30.1)	102 (52.0)	$\chi^2 = 20.088$	<0.001*
My wife pressured me to use it	9 (4.3)	2 (1.0)	$\chi^2 = 4.133$	0.042*
Reasons for not using any FP method**	**(n= 214)**	**(n= 227)**		
My wife is currently pregnant	137 (64.0)	131 (57.7)	$\chi^2 = 1.839$	0.175
It contradicts my religion/ culture	68 (31.8)	76 (33.5)	$\chi^2 = 1.460$	0.703
I have no desire to use/ I am not interested	62 (29.0)	66 (29.1)	$\chi^2 = 0.001$	0.981
I have the desire for more children	54 (25.2)	77 (33.9)	$\chi^2 = 3.981$	0.046*
My wife refused	24 (11.2)	21 (9.3)	$\chi^2 = 0.464$	0.496
It has side effects	18 (8.4)	40 (17.6)	$\chi^2 = 8.180$	0.004*
It encourages infidelity	15 (7.0)	48 (21.1)	$\chi^2 = 17.976$	<0.001*
It causes a delay in the return of fertility	11 (5.1)	15 (6.6)	$\chi^2 = 0.428$	0.513
It decreases the sexual urge of women	9 (4.2)	9 (4.0)	$\chi^2 = 0.016$	0.898
I lack awareness of FP	2 (0.9)	4 (1.8)	Fisher's Exact	0.686
I do not know where to get FP services	0 (0.0)	0 (0.0)	NA	
Willingness to use FP in the future	**(n= 214)**	**(n= 227)**		
Yes	128 (59.8)	120 (52.9)	$\chi^2 = 2.162$	0.141
No	86 (40.2)	107 (47.1)		

** Multiple responses, χ^2 - Pearson's chi-square test, NA- Not Applicable, *Statistically significant ($p < 0.05$)

Table 5: Proportion of the respondents involved in family planning

Variables	Urban (n= 423) n (%)	Rural (n= 423) n (%)	Test statistics	p-value
Male involvement actions				
Discussed with your wife on FP in the preceding year	323 (76.4)	273 (64.5)	$\chi^2 = 14.195$	<0.001*
Initiator of the discussion on FP (I did)	95 (21.7)	114 (30.0)	$\chi^2 = 2.294$	0.130
Discussed with your wife the type of FP method to use	323 (76.4)	266 (62.9)	$\chi^2 = 18.158$	<0.001*
Who decided on the type of FP method to be used (joint decision)	265 (62.6)	239 (56.5)	$\chi^2 = 3.318$	0.069
Discussed with your wife the number of children to have	323 (76.4)	262 (61.9)	$\chi^2 = 20.617$	<0.001*
Who decided on the number of children to have (joint decision)	264 (62.4)	234 (55.3)	$\chi^2 = 4.393$	0.036*
Discussed with your wife on child spacing	303 (71.6)	224 (53.0)	$\chi^2 = 31.407$	<0.001*
Who decided on when to have another child (joint decision)	250 (59.1)	196 (46.3)	$\chi^2 = 13.828$	<0.001*
Provided money for family planning services	162 (38.3)	101 (23.9)	$\chi^2 = 20.531$	<0.001*
Accompanied your wife to the FP clinic	185 (43.7)	161 (38.1)	$\chi^2 = 2.817$	0.093
Never went against the wish of your wife when it comes to FP issues	265 (62.6)	290 (68.7)	$\chi^2 = 3.274$	0.070
Who made the final decision on FP in your home (joint decision)	246 (58.2)	232 (54.8)	$\chi^2 = 0.943$	0.332
Male involvement grade				
High	(58.4)	(48.2)	$\chi^2 = 8.781$	p= 0.003*
Low	(41.6)	(51.8)		

χ^2- Pearson's chi-quare test, *Statistically significant ($p < 0.05$)

Table 6: Relationship between sociodemographic factors of the respondents and male involvement in family planning

Sociodemographic characteristic	Urban group: Level of male involvement n (%)		Test statistics and p-value	Rural group: Level of male involvement n (%)		Test statistics and p-value
	High	Low		High	Low	
Age group (years)						
≤40	103 (56.3)	80 (43.7)	$\chi^2 = 0.590$ p = 0.442	80 (42.1)	110 (57.9)	$\chi^2 = 5.177$ p = 0.023*
≥41	144 (60.0)	96 (40.0)		124 (53.2)	112 (46.8)	
Tribe						
Hausa	158 (58.3)	113 (41.7)	$\chi^2 = 3.738$ p = 0.291	178 (47.7)	195 (52.3)	$\chi^2 = 0.774$ p = 0.863
Ibo	19 (70.4)	8 (29.6)		6 (60.0)	4 (40.0)	
Yoruba	50 (52.6)	45 (47.4)		9 (47.4)	10 (52.6)	
Other	20 (66.7)	10 (33.3)		11 (52.4)	10 (47.6)	
Religion						
Islam	223 (57.8)	163 (42.2)	$\chi^2 = 0.699$ p = 0.403	199 (48.3)	213 (51.7)	$\chi^2 = 0.035$ p = 0.852
Christianity	24 (64.9)	13 (24.3)		5 (45.5)	6 (54.5)	
Occupation						
Unemployed	-	-	$\chi^2 = 51.986$ p < 0.001*	1 (100.0)	0 (0.0)	Fisher's Exact p < 0.001*
Informal sector	115 (44.6)	143 (55.4)		88 (37.6)	146 (62.4)	
Formal sector	132 (80.0)	33 (20.0)		115 (61.2)	73 (38.8)	
Educational level						
Informal	32 (35.2)	59 (64.8)	$\chi^2 = 25.747$ p < 0.001*	34 (50.0)	34 (50.0)	$\chi^2 = 0.102$ p = 0.749
Formal	215 (64.8)	117 (35.2)		170 (47.9)	154 (52.1)	
Age at first marriage (years)						
≤30	49 (47.1)	55 (52.9)	$\chi^2 = 7.218$ p = 0.007*	89 (52.0)	82 (48.0)	$\chi^2 = 1.677$ p = 0.195
≥31	198 (62.1)	121 (37.9)		115 (45.6)	137 (54.4)	
Type of marriage						
Monogamous	169 (58.9)	118 (41.1)	$\chi^2 = 0.089$ p = 0.765	114 (43.3)	149 (56.7)	$\chi^2 = 6.634$ p = 0.010*
Polygamous	78 (57.4)	58 (42.6)		90 (56.3)	70 (43.8)	

χ^2- Pearson's chi-quare test, *Statistically significant (p < 0.05)

Table 7: Relationship between sociodemographic factors of the wives, number of children, social class, use of FP methods and male involvement in family planning

Variables	Urban			Rural		
	Level of male involvement n (%)		Test statistics and p-value	Level of male involvement n (%)		Test statistics and p-value
	High	Low		High	Low	
Age of wife (years)						
≤35	200 (57.8)	146 (42.2)	$\chi^2 = 0.271$ p = 0.602	171 (46.6)	196 (53.4)	$\chi^2 = 2.961$ p = 0.085
≥36	47 (61.0)	30 (39.0)		33 (58.9)	23 (41.1)	
Duration of marriage (years)						
≤10	159 (58.5)	113 (41.5)	$\chi^2 = 0.001$ p = 0.972	99 (40.9)	143 (59.1)	$\chi^2 = 12.130$ p < 0.001*
≥11	88 (58.3)	63 (41.7)		105 (58.0)	76 (42.0)	
Occupation of wife						
Unemployed	76 (45.8)	90 (54.2)	$\chi^2 = 46.094$ p < 0.001*	78 (44.1)	99 (55.9)	$\chi^2 = 25.620$ p < 0.001*
Informal sector	55 (48.2)	59 (51.8)		73 (41.5)	103 (58.5)	
Formal sector	116 (81.1)	27 (18.9)		53 (75.7)	17 (24.3)	
The educational level of wife						
Informal	57 (46.3)	66 (53.7)	$\chi^2 = 85.924$ p = 0.001*	58 (44.3)	73 (55.7)	$\chi^2 = 1.187$ p = 0.276
Formal	190 (63.3)	110 (36.7)		146 (50.0)	146 (50.0)	
Number of living children						
≤4	153 (57.5)	113 (42.5)	$\chi^2 = 0.225$ p = 0.635	97 (42.2)	133 (57.8)	$\chi^2 = 7.397$ p = 0.007*
≥5	94 (59.9)	63 (40.1)		107 (55.4)	86 (44.6)	
No of children intended to have						
≤4	112 (58.9)	78 (41.1)	$\chi^2 = 0.568$ p = 0.451	55 (47.4)	61 (52.6)	$\chi^2 = 0.029$ p = 0.865
≥5	98 (55.1)	80 (44.9)		125 (46.5)	144 (53.5)	
Social class						
Upper SC (I & II)	83 (90.2)	9 (9.8)	$\chi^2 = 63.951$ p < 0.001*	59 (81.9)	13 (18.1)	$\chi^2 = 44.106$ p < 0.001*
Middle SC (III)	87 (61.7)	54 (38.3)		74 (47.7)	81 (52.3)	
Lower SC (IV & V)	77 (40.5)	113 (59.5)		71 (36.2)	125 (63.8)	
Ever use of FP						
Yes	218 (65.1)	117 (34.9)	$\chi^2 = 29.595$ p < 0.001*	164 (50.9)	158 (49.1)	$\chi^2 = 3.951$ p = 0.047*
No	29 (33.0)	59 (67.0)		40 (39.6)	61 (60.4)	
Current use of FP						
Yes	141 (67.5)	68 (32.5)	$\chi^2 = 13.993$ p < 0.001*	103 (52.6)	93 (47.4)	$\chi^2 = 2.735$ p = 0.098
No	106 (49.5)	108 (50.5)		101 (44.5)	126 (55.5)	

χ^2 - Pearson's chi-square test, SC- social class, Statistically significant (p < 0.05)

DISCUSSION

This study assessed and compared the level of MI in FP and the correlates of MI in FP among men in urban and rural communities of Sokoto State, Nigeria. At the time of the survey, about half of the couples in the urban areas (49.4%) and a little fewer than that in the rural areas (46.3%) were using a method of FP which was similar to the findings reported in studies done in urban (53.7%) and rural (46.3%) areas of Cross River and urban areas of Kaduna and Ibadan (42.7%).[23,24] However, Nigeria Demographic and Health Survey (NDHS) 2018 reported 26.4%, 10.0%, 7.0% and 2.3% for urban areas, rural areas, North-West zone and Sokoto State, respectively.[6] While the Lot Quality Assurance Survey (LQAS) of 2012 reported a current CPR of 9.3% among men in Sokoto, the National HIV & AIDS and Reproductive Health Survey (NARHS) Plus of 2012 reported 30% and 29.9% among married men in urban areas and men with tertiary education in Nigeria, NDHS 2013 reported 30% among married men.[7,25,26] This showed an increase in FP use among men in Nigeria. The work of the various Non-Governmental Organizations, such as Breakthrough Action-Nigeria on FP in the study LGAs could also explain the high CPR documented. Also, with the increase in awareness and knowledge of FP and realities of the impact of large families in the harsh economy, more people in this part of the country are embracing FP.[27] About half of the respondents in the rural areas and 30.1% of those in the urban areas cited the reason for using a FP method was to improve their family's financial condition. The CPR reported in this study indicates that men are buying into the idea of FP more, even if it is for economic reasons.

Overall, more than half of the respondents in the urban areas (58.4%) and a little below half of those in the rural areas (48.2%) were highly involved in FP. This finding aligns with the results of studies done in Bangladesh, India and Wolayeta Soddo town in South Ethiopia,[9,28,29] but it is different from the finding of a survey in Osun where only 4.8% were found to be involved in FP.[18] The outcome demonstrated in this study though not optimal, is commendable, and it is an indication that men are becoming more involved in FP. The majority of the respondents in the two groups (urban = 76.4%, rural = 64.5%) had a discussion with their wives on FP in the preceding year. Varied figures were reported in NARHS Plus of 2012, with 66.9% of men with tertiary education discussing FP with their spouse in the last twelve months, 58.8% of men in Nigeria and 47.4% of men in the North-West zone reporting the same.[25] Prevalence of discussing FP with spouse was shown to increase with the increase in educational attainment and as the place of residence changes from rural to urban.[25] A study done in rural areas of Kaduna State reported that 22.4% of its respondents had a discussion on FP with their spouses; about three-fifth of these respondents had no formal education, hence the likely reason for the lower figure than what was documented in this study.[30] This outcome is heartening, but there is room for improvement, and with more continuous enlightenment campaigns, discussion about FP by couples may become the norm. Research has shown that although interspousal communication about contraceptive use is not a precondition for adopting contraception, its absence may be a severe impediment to use.[18] Inter-spousal communication is an essential intermediate step along the path to the eventual adoption and sustained use of FP.[18]

A minority of the respondents in the two groups (urban = 43.7%, rural = 38.1%) had ever accompanied their wives to FP clinics, and this finding, albeit a bit higher, corroborates findings from other studies conducted in Jos, Ile- Ife and Olorunda were 26.7%, 26% and 15.5% respectively.[1,13,18] Men who accompany their wives to the FP clinics stand a chance of being better enlightened on FP methods, which is a sign of support to the partner. A study has shown that women whose partners supported FP had more than eight times greater odds of using FP methods compared to women whose partners did not.[31] Whereas the highest proportion of the respondents in the two groups (58.2%, urban vs 54.8%, rural) claimed they and their wives took the final decision on FP in their homes, about two-fifth of the respondents in both groups claimed they took the decision alone. NDHS 2018 reported similar national figures of 68.0% for the urban areas and 63.3% for the rural areas on joint decision-making on FP, while a figure of 63.9% was reported for the North West zone; the figure rose with the increase in socioeconomic status and educational attainment.[6] Findings from studies done in Southwest Ethiopia and Sri Lanka did not support the findings of this study, as 87.1% and 74% reported taking decisions on FP jointly.[11,32] Joint decision-making by couples about the use of FP is a crucial determinant of contraceptive use.[5]

The factors found to be significantly associated with MI in FP in both groups were the occupation of the respondents and their spouses, social class and ever use of FP. Other factors found to be significantly associated with male involvement in FP in the urban group were the educational level of the respondents and their spouses, age at first marriage and current use of FP; the age of the respondents, type of marriage, duration of marriage and number of living children were the other factors found to be significantly associated with male involvement in FP in the rural group. Studies have found some of the above factors to be significantly associated with male involvement in FP.[9,14] A survey done in a rural area of Sokoto State revealed a significant association between a husband's occupation and support for FP, but there was no significant association between a husband's level of education and support for FP.[33]

CONCLUSION

Respondents in urban and rural LGAs CPR was 49.4% and 46.3%, respectively. The majority (58.4%) of the respondents in the urban LGA compared to 48.2% of those in the rural LGA were highly involved in FP, and this difference was statistically significant. Occupation of the respondents and their spouses, social class and ever use of FP were found to be statistically significantly associated with MI in FP in both groups. It is recommended that the Sokoto State Government and the Local Government areas should continue to raise awareness and provide information on the benefits and the need for more males to be involved in FP. This could be done through the use of information, education and communication materials and public enlightenment programmes. The Federal Government of Nigeria's current economic empowerment programmes (for example, N-POWER) should target those in lower social classes as social class was found to influence MI in FP.

Limitations

Some responses might not be accurate because of recall bias. Recall bias was minimized as much as possible by shortening the time frame to one year to enable the respondents to recall the performance of specific actions.

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REFERENCES

1. Ijadunola MY, Abiona TC, Ijadunola KT, Afolabi OT, Esimai OA, OlaOlorun FM. male involvement in family planning decision making in Ile-Ife, Osun State, Nigeria. Afr J Reprod Health 2010; 14(4): 45-52.
2. National Population Commission (NPC) [Nigeria], ICF International. Nigeria Demographic and Health Survey 2013. Abuja, Nigeria and Rockville, Maryland, USA: National Population Commission (NPC) [Nigeria] and ICF International; 2014.
3. Damian C. World population to hit 11 billion in 2100 – with 70% chance of continuous rise. Available at: http://www.theguardian.com/environment/2014/sep/18/world-population-new-study-11bn-2100 [Last accessed on 2018, May 11].
4. Jones S, Anderson M. Global population set to hit 9.7 billion people by 2050 despite fall in fertility. Available at: http://www.theguardian.com/global-development/2015/jul/29/un-world-population-prospects-the-2015-revision-9-7-billion-2050-fertility [Last accessed on 2018, May 17].
5. Nettey OEA, Enuameh YA, Mahama E, Sulemana A, Adjei G, Gyaase S, et al. Family Planning Awareness, Perceptions and Practice among Community Members in the Kintampo Districts of Ghana. Adv Reprod Sci 2015; 3(1): 1-12.
6. National Population Commission (NPC) [Nigeria], ICF. Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF; 2019.
7. Schwandt H, Galadanci H, Herbert A. Assessment of Family Planning Use in Bauchi and Sokoto States, Nigeria. Maryland: John Hopkins University 2015.
8. Aransiola JO, Akinyemi AI, Fatusi AO. Women's perceptions and reflections of male partners and couple dynamics in family planning adoption in selected urban slums in Nigeria: a qualitative exploration. BMC Public Health 2014; 14(869): 1-14.
9. Kamal MM, Islam MS, Alam MS, Hassan ABME. Determinants of male involvement in family planning and reproductive health in Bangladesh. Am J Human Ecol 2013; 2(2): 83-93.
10. Kura S, Vince J, Crouch-Chivers P. Male involvement in sexual and reproductive health in the Mendi district, Southern Highlands province of Papua New Guinea: a descriptive study. Reprod Health 2013; 10:46.
11. Tilahun T, Coene G, Temmerman M, Degomme O. Spousal discordance on fertility preference and its effect

on contraceptive practice among married couples in Jimma zone, Ethiopia. Reprod Health 2014; 11:27.
12. Ozumba CO. Family planning among married men: a pilot study in Abakpa Nike Enugu state Nigeria. Sixth African Population Conference 2011. Available at: https://uaps2011.popconf.org/papers/110374 [Last accessed on 2018, May 17].
13. Daniel G, Okolo N, Kumzhi P, Wina F, Ari E, Onyejekwe G. Awareness and use of family planning methods among men in Mista Ali Distric, Jos, Plateau State, Nigeria. Afr J Midwifery & Women's Health 2016; 10(3): 120-5.
14. Ani F, Abiodun O, Sotunsa J, Faturoti O, Imaralu J, Olaleye A. Demographic factors related to male involvement in reproductive health care services in Nigeria. Eur J Contracept Reprod Health Care 2016; 21(1): 57-67.
15. Ali M, Rizwan H, Ushijima H. Men and reproductive health in rural Pakistan: the case for increased male participation. Eur J Contracept Reprod Health Care 2004; 9(4): 260-6.
16. WHO. Sokoto State Masterlist of Settlements. Sokoto, Nigeria. Geneva, Switzerland: World Health Organisation; 2013.
17. Kirkwood BR, Sterne JA. Essential Medical Statistics. 2nd ed. Malden, Massachusetts, USA: Blackwell Publishing Company; 2003.
18. Adelekan A, Omoregie P, Edoni E. Male involvement in family planning: challenges and way forward. Int J Population Res 2014; Article ID: 416457.
19. Kassa M, Abajobir AA, Gedefaw M. Level of male involvement and associated factors in family planning services utilization among married men in Debremarkos town, Northwest Ethiopia. BMC Int Health and Human Rights 2014; 14: 33.
20. Orji EO, Ojofeitimi EO, Olanrewaju BA. The role of men in family planning decision-making in rural and urban Nigeria. Eur J Contracept Reprod Health Care 2007; 12(1) 70-5.
21. Tilahun T, Coene G, Luchters S, Kassahun W, Leye E, Temmerrman M, et al. Family planning knowledge, attitude and practice among married couples in jimma zone, ethiopia. PLoS ONE 2013; 8(4): e1335.
22. Oyedeji G. Socio-economic and cultural background of hospitalized children in Ilesha. Nigerian Journal of Paediatrics 1985; 12(4): 111-7.
23. Okigbo CC, Speizer IS, Corroon M, Gueye A. Exposure to family planning messages and modern contraceptive use among men in urban Kenya, Nigeria, and Senegal: a cross- sectional study. Reproductive Health. 2015; 12: 63.
24. Undelikwo VA, Osonwa OK, Ushie MA, Osonwa RH. Family planning behaviours and decision-making among couples in Cross River State, Nigeria. Int J Learning Develop 2013; 3(1): 100-20.
25. Federal Ministry of Health [Nigeria]. National HIV & AIDS and Reproductive Health Survey, 2012 (NARHS Plus). Abuja, Nigeria: Federal Ministry of Health; 2013.
26. Nmadu A, Joshua I, Omole V, Usman N, Igboanusi C, Gobir A. Male involvement in family planning in Northern Nigeria: A review of literature. J Med Trop 2019; 21(1): 6-9.
27. Ejeh B. Comparative analysis of knowledge and use of modern contraceptives among male and female in Okpokwu Local Government Area, Benue State, Nigeria. A dissertation submitted to the School of Postgraduate Studies, Ahmadu Bello University, Zaria, in partial fullfillment of the requirements for the award of Master of Science degree in the Department of Geography, Faculty of Science, Ahmadu Bello University, Zaria; 2016.
28. Abraham W, Adamu A, Deresse D. The involvement of men in family planning: an application of transtheoretical model in Wolayeta Soddo Town South Ethiopia. Asian J Med Sci 2010; 2(2): 44- 50.
29. Joshi L. Male participation in family planning: human behaviour perspective. J Nepal Health Res Counc 2015; 13(31): 188-95.
30. Ibrahim MS, Sabitu K, Bashir SS, Olorukooba AA. Spousal communication on family planning, pregnancy, and delivery care among men in rural Northern Nigeria. Sahel Med J 2018; 21(2): 88-92.
31. Brunie Al, Tolley EE, Ngabo Fl, Wesson J, Chen M. Getting to 70%: barriers to modern contraceptive use for women in Rwanda. Int J Gynaecol Obstet 2013; 123(Suppl 1: e11-5.
32. Rahman ALF, Razmy AM. Male participation in family planning. SEUIR Repository. Available at: http://ir.lib.seu.ac.lk/handle/123456789/892. [Last accessed on 2018, June 1].
33. Raji MO, Oche MO, Kaoje AU, R aji HO, Ango JT. Awareness and utilization of family planning commodities in a rural community of North West Nigeria. Caliphate Med J 2013; 1(4): 103-8.

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