

Determinants of Male Involvement in Family Planning Services in Abia State, Southeast Nigeria

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Abstract

Background: Male involvement in family planning (FP) remains low in male-dominant communities. Family planning contributes to the regulation of fertility and population growth in Nigeria. Increasing male involvement in family planning services is crucial in reducing maternal morbidity and mortality in patriarchal societies such as Nigeria. This study identified the determinants of male involvement in family planning services in Abia State, Nigeria.

Methods: This was a cross-sectional study conducted in twelve communities of Abia State, Nigeria. A total of 588 married men who met the eligibility criteria were recruited using a multistage sampling technique. An interviewer-administered semi-structured questionnaire was used to collect data on the variables. Univariate, bivariate and multivariate analysis was done. The level of significance was set at 5%.

Results: The overall level of active male involvement in family planning services was 55.1% (95% CI:51.0%- 59.2%). The mean age of the respondents was 42.4±8.0 years. Access to television (aOR= 1.58, 95% CI: 1.05-2.39), spouse employment status (aOR= 2.02, 95% CI: 1.33-2.06), shared decision-making (aOR= 1.66, 95% CI: 1.05-2.62), and accompanying spouse to the FP clinic (aOR= 3.15, 95% CI: 2.16-4.62) were all predictors of active male involvement.

Conclusion: Active involvement of men in family planning services was moderate. This was predicted by access to television, employment status of spouse, shared decision-making, and accompanying spouse to the FP clinic. There is a need to focus on the identified factors in order to further improve the active involvement of men in FP services.

Background

Family planning (FP) programmes have centered primarily on women. However, with a focus on gender equity for optimal health, there is a shift to engage men in supporting and using FP services.[1] Men, as the decision-makers in most African families, have an important role to play towards the utilization of FP methods, which is an efficacious intervention recommended and approved by the World Health Organization (WHO) as well as the Ministry of Health (MoH) in most countries.[2] Family planning refers to a conscious effort by a couple to limit or space the number of children they want to have through the use of contraceptive methods. Benefits of family planning include reduced maternal and infant mortality, sustainable development through population control, and enhanced women's participation in the workforce.[3]

Developing countries make up about 85% of the global population and account for 99% of all maternal mortality cases[4]. According to the 2018 National Demographic Health Survey (NDHS), the maternal mortality ratio (MMR) was 512 deaths/100,000 live births,[5] and Nigeria accounts for approximately one-fifth of maternal deaths globally[6]. Additionally, the lifetime risk of maternal death in Nigeria is 0.029 (1 in 34) [5], compared to 1 in 4900 in most developed countries [6]. Low level of male involvement in

reproductive health practices is one of the drivers of high maternal morbidity and mortality. This has reduced the impact of family planning interventions and intertwines with unregulated fertility that hinders economic development and creates a political imbalance in a country.[7, 8]

Globally, there is a growing rise in the recognition of the benefits of involving men in family planning services.[9] It is known from research that gender dominance, particularly men's disapproval of family planning, has an impact on the subdued prevalence of contraceptive use in sub-Saharan Africa.[10] A study done in Bangladesh documented a 40% male involvement rate,[4] and a similar study carried out in Western Nigeria documented 39.6%.[11] This shows that male involvement remains low despite ongoing efforts. The effect of male dominance on the decision-making process heightens the poor indices of reproductive health, as documented in a study in Nigeria where 62% of women had their husbands as their decision-makers and only 6% of currently married women at the time of the survey made decisions for themselves.[5] Male involvement in SRH (Sexual and Reproductive Health) is an integrated approach engaging men as clients, partners, and agents of positive change in reproductive health issues.[12]

Access to the media, television, and radio, spouse employment status, and average monthly income have all been identified as positive correlates of male involvement in studies.[11, 13–16] However, there is a paucity of data on the factors affecting the male involvement of men in family planning services in our study location. There is a need to generate data to inform decisions taken by policymakers in designing family planning programmes. Therefore, we aimed in this study to identify the determinants of male involvement in family planning services in Abia State.

Methods

Study design and setting

This was a community-based household cross-sectional study, that was conducted in 12 communities located in the three Senatorial Zones of Abia State in southeastern Nigeria. It had an estimated population of 3,901,620 in 2018 projected from the 2006 national population census with an annual growth rate of 2.7%.[17] Geopolitically, Abia State is divided into three senatorial districts—Abia North, Abia South, and Abia Central—with 17 Local Government Areas (LGAs) and has 291 political wards. Igbo language with varying dialects, and English are the major languages for communication. Abia State is inhabited mostly by the Igbo ethnic group, who are predominantly Christians with a few people who practice traditional religion. The Catholic doctrine forbids the use of modern family planning methods.

There are 517 public primary healthcare centres, 17 public secondary healthcare facilities, and two public tertiary healthcare centres. Family planning services are available across all health facilities and can be assessed at all levels of health facilities in the state, including chemist stores and private health facilities. There are no known existing taboos against family planning use in the state. In Nigeria, an urban area is defined as an area with a population size of $\geq 20,000$ people, with basic social and physical infrastructure, and so designated through legal or administrative instruments [18]. Based on the above definitions, the LGAs in Abia State have been categorized into rural and urban in the various senatorial

zones. The state has 730 autonomous communities in Abia State, each with an Eze as the traditional ruler.

Sample size determination

Estimation of sample size was done using the sample size formula for cross-sectional studies.[19] A minimum sample size of 616 was determined at a confidence level of 95%, a design effect of 1.5 with a margin error of 5%. This was based on the proportion of male involvement in reproductive services (30.9%) in a previous study.[11] A non-response rate of 20% was assumed.

Study population and sampling strategy

The study population included men in a marital/cohabiting relationship with a spouse or partner from the selected communities. This category of men is believed to have had some experiences relating to reproductive health issues in marriage and/or fatherhood. Participants were included in the study if they met the eligibility criteria of being in the age group (15-59 years) as defined by NDHS [19], in a marital or cohabiting relationship, and living in the study area 6 months prior to the study. However, those with debilitating illnesses such as cerebrovascular diseases that could interfere with communication were excluded. A total of 616 men were recruited using the multistage sampling technique. **Stage one:** Six LGAs were selected using the balloting technique. They included Aba North, Umuahia North, Ohafia, Ugwunagbo, Bende, and Ikwuano LGAs. **Stage two:** In each LGA selected, the list of communities was obtained and they served as clusters. In each of the LGAs, two clusters were selected using a simple random sampling technique. In each cluster selected, fifty-two respondents were selected. **Stage three:** The grid method was used with the spinning of a pen to define the direction of flow to select the households. An eligible respondent was selected in each household visited until the required sample size was attained.

Study tool and data collection process

A pre-tested interviewer-administered semi-structured questionnaire with open- and closed-ended questions was used to collect information from the participants by trained research assistants over a month (November-December 2019). The questionnaire was adapted from previous studies.[11,20] The Cronbach's alpha index was 0.71. The Igbo translated version which was translated back to English to ensure that the original meaning was maintained, was also available for use. The questionnaire used for this study has four sections. **Section 1** addressed sociodemographic variables such as age, marriage type, educational status, occupational status, religion, and denomination. **Section 2** included socio-economic variables such as income, access to mass media, number of living children, educational status of spouse, and employment status of spouse. **Section 3** included socio-cultural variables such as decision-maker on FP issues, accompanying spouse to FP clinic, and community and family support for accompanying spouse to FP clinic. **Section 4** contained composite questions to measure the level of male involvement in family planning services. These included; Are you currently using any family planning method (s)? Have you ever discussed FP with your spouse/partner? Are you aware of any male

FP method (s)? Have you ever attended any FP clinic? Have you ever discussed FP with a friend? And would you recommend FP to a friend?

Quality control and data management

The research assistants were properly trained to ensure accuracy in data collection. The questionnaire was pre-tested to detect and correct possible errors and identify any ambiguities before the initiation of the study using sixty (60) respondents (10% of the study sample size) in Old Umuahia (Umuahia South LGA) which was not selected for the study,

Measurement of variables

The dependent variable was the level of male involvement in family planning services. It was created as a composite variable comprising six (6) questions covering respondents' FP practices and FP perceptions. The responses were dichotomized (Yes/No), with a score of 'No'= 0 and 'Yes' = 1. This gave a maximal score of six (6) and a minimum score of zero (0). A total score of 0 was classified as 'None involvement', while a score of 1-3 was classified as 'passive involvement' and a score of 4-6 was classified as 'active involvement'. For the logistic regression, a score of 0-3 was recoded as 'passive involvement'. The independent variables included age, educational status, occupational status, average monthly income, number of living children, educational status/employment status of spouse, decision-maker on FP issues, accompanying spouse to FP clinic, community and family support on accompanying spouse to FP clinic

Statistical analysis

Data coding, entry, cleaning, and analysis was done using SPSS version 20 statistical program for Windows. Univariate analysis was done to compare the independent variables of study subjects within the rural/urban settlements. Association between male involvement and the independent variables in family planning services was determined using chi-square (χ^2 -test) respectively, across both groups of comparison. The variables were dichotomized for ease of data analysis and interpretation. P values <0.05 and 95% confidence interval excluding the null values were considered significant. Logistic regression analysis was done to identify the significant predictors of men's involvement in family planning services. Factors that fitted into the regression model, were those with P values <0.2 at the level of bivariate analysis. The analysis was done based on a significance level of 5%. Adjusted odds ratios with 95% confidence intervals were computed for the significant variables at the level of bivariate analysis. Appropriate charts and tables were used to display the results.

Results

Social-demographic characteristics of the study participants

A total of 588 respondents participated in the study with a response rate was 95.5%. The mean age of the study respondents was 42.2 ± 8.0 years. Respondents were almost distributed similarly between the 35-44 years age group (41.0%) and those aged over 45 years (41.2%). Two hundred and forty-one (41.0%) had secondary education with the majority (93.2%) of them in a monogamous relationship. The majority of the respondents 324 (55.1%) had 3-4 living children. Five hundred and seventy-three (97.4%) were Christians with more than 40% belonging to the Pentecostal denomination. Close to one-third of the respondents 184 (31.3%) were traders, and 523 (88.9%) had resided in their abode for more than two years (Table 1).

Table 1
Sociodemographic characteristics of respondents

Variable	Frequency (n)	Percentage (%)
Age		
25-34	105	17.9
35-44	241	41.0
≥45	242	41.1
Total	588	100
Mean (±SD)	42.4 (±8.0)	
Education Status		
No formal education	24	4.1
Primary	99	16.8
Secondary	241	41.0
Tertiary	224	38.1
Marriage/relationship type		
Monogamous	548	93.2
Polygamous	22	3.7
Cohabitation	18	3.1
Current number of living children		
None	19	3.2
1-2	129	22.0
3-4	324	55.1
≥4	116	19.7
Median (IQR)	2.0(2-4)	
Religion		
Christianity	573	97.4
Traditional	15	2.6
Denomination[†]		

[†] n= 573, IQR Interquartile Range

Variable	Frequency (n)	Percentage (%)
Catholic	131	22.9
Orthodox	188	32.8
Pentecostal	243	42.4
Others	11	1.9
Duration at the present residence in the community		
6 months	8	1.4
>6-12 months	13	2.2
>12 months-2years	44	7.5
>2years	523	88.9
Occupation status		
Professional	28	4.8
Trader	184	31.3
Civil servant	146	24.8
Skilled manual labour	47	8.0
Artisan	71	12.1
Farming	81	13.8
No occupation	31	5.3
† n= 573, IQR Interquartile Range		

Proportion of agreed responses on male involvement in family planning services by indicators

A large majority of men 495 (84.2%) had discussed FP with their spouses in the past six months prior to the study. The majority 414 (70.4%) were aware of male-focused FP methods. Only 337 (57.3%) were currently using a FP method and 381 (64.8%) had discussed FP with their friends. In contrast, less than half of the men 290 (49.3) had ever attended a FP clinic and recommended FP to their friends 285 (48.5%) in the past six months prior to the study. (Table 2)

Table 2
Proportion of agreed responses on male involvement in family planning services by indicators

Variable	Yes (%)
Aware of any male-focused FP method	414 (70.4)
Currently on any family planning methods	337 (57.3)
Ever discussed FP issues with your spouse/partner	495 (84.2)
Ever attended any FP clinic	290 (49.3)
Ever discussed FP with friend	381 (64.8)
Ever recommended FP to a friend	285 (48.5)

Multiple responses were allowed

Socio-economic/cultural characteristics of the respondents

Two hundred and forty-one (43.3%) were in the \geq ₦60,000 monthly income category. The median income was ₦50,000 (IQR: ₦30,000–₦50,000). The majority of the respondents had access to - newspapers 390 (66.3%), radio 519 (88.3%) and television 401 (68.2%). Two hundred and fifty-six of the respondents' spouses had a minimum of tertiary education and the majority (62.9%) of them were employed. The majority of the respondents 462(78.6%) made joint-decisions with their spouses on FP issues. However, only 293 (49.8%) agreed to accompany their spouse to the FP clinic. The majority of the respondents 541 (92.0%) agreed that FP was not solely a woman's responsibility and more than 75% of the respondents believed that FP was supported by family members and the community (Table 3).

Table 3
Socio-economic/cultural characteristics of the respondents

Variables	Frequency (n)	Percentage (%)
Monthly income^a (Naira ₦)		
< ₦30,000	149	26.8
≥ ₦30,000-59,999	167	30.0
> ₦60,000	241	43.2
Median (IQR)	₦50,000 (₦30,000- ₦50,000)	
Access to Newspapers		
Yes	390	66.3
No	198	33.7
Access to radio		
Yes	519	88.3
No	69	11.7
Access to television		
Yes	401	68.2
No	187	31.8
Educational status of spouse		
None	34	5.8
Primary	62	10.5
Secondary	236	40.1
Tertiary	256	43.6
Employment status (spouse)		
Employed	370	62.9
Unemployed	218	37.1
Decision maker on FP		
With spouse	462	78.6

^an= 557, FP Family Planning, IQR Interquartile Range

Variables	Frequency (n)	Percentage (%)
Spouse only	122	20.7
Others (Relatives)	4	0.7
Accompanies spouse to FP Clinic?		
Yes	293	49.8
No	295	50.2
FP is solely a woman's responsibility		
Yes	47	8.0
No	541	92.0
Does your family support you to accompany your spouse to the FP clinic?		
Yes	460	78.2
No	128	21.8
Does your community support you to accompany your spouse to the FP clinic?		
Yes	481	81.8
No	107	18.2
^an= 557, FP Family Planning, IQR Interquartile Range		

Among the respondents, 55.1% (95% CI: 51.0%-59.2%) were active in FP services compared to 39.6% (95% CI: 35.6%-43.7%) who were passive. However, 5.3% (95% CI: 3.6%-7.4%) were not involved in FP services.

Factors associated with active male involvement in family planning services among the respondents

The participants who had access to television were more likely to be active in family planning services compared to their counterparts. (OR=1.70, 95%CI:1.20-2.40) Respondents whose spouses were employed were 90% more likely to be actively involved in FP compared to those whose spouses were not employed. (OR=1.90, 95%CI:1.35-2.67) Respondents who had joint decision-making with their spouses on FP issues were more likely to be involved actively in FP services compared to those whose spouses solely took decisions. (OR=2.15, 95%CI:1.43-3.23) Active involvement was three-fold higher in men who agreed to accompany spouses to the FP clinic. (OR=3.39, 95%CI:2.41-4.77)

There was a positive association with the active involvement and support of family members in accompanying spouse to the FP clinic. (OR=1.78, 95%CI:1.20-2.64) Furthermore, those who believed that their community supported accompanying spouse to the FP clinic were 80% more likely than their counterparts to be active in male involvement (OR=1.80, 95%CI: 1.18-2.75). (Table 4).

Table 4

Factors associated with active male involvement in family planning among the respondents

Variable	Male involvement		Total	OR (95%CI)	P-value
	Active (n%)	Passive (n%)			
Age					
<40	133 (52.2)	122 (47.8)	255	0.82 (0.59- 1.14)	0.237
≥40	190(57.1)	143 (42.9)	333	1	
Educational status					
Tertiary	162 (54.6)	135 (45.4)	297	0.97 (0.70- 1.34)	0.849
Below tertiary	161 (55.3)	130 (44.7)	291	1	
Marriage type					
Monogamous	312 (55.2)	254 (44.8)	566	1.23 (0.52- 2.88)	0.636
Polygamous	11 (50.0)	11 (50.0)	22	1	
Denomination^a					
Catholic	76 (55.5)	61 (44.5)	137	1.02 (0.70- 1.51)	0.884
Non-Catholic	247 (54.8)	204 (45.2)	451	1	
Current number of living children[†]					
≥4	164 (53.2)	144 (46.8)	308	0.87 (0.62- 1.21)	0.409
1-3	148 (56.7)	113 (43.3)	261	1	
Occupational status^a					

^a n=557 † n=569 [^]n=584 *p values <0.05 are considered significant, OR Odds Ratio, CI Confidence Interval

Variable	Male involvement		Total	OR (95%CI)	P-value
	Active (n%)	Passive (n%)			
Skilled	139 (59.4)	95 (40.6)	234	1.33 (0.95-1.87)	0.097
Unskilled	169 (52.3)	154 (47.7)	323	1	
Monthly income^a (Naira ₦)					
≥ ₦55,000	174 (55.6)	139 (44.4)	313	1.03 (0.73-1.43)	0.874
< ₦55,000	134 (54.9)	110 (45.1)	244	1	
Access to Newspaper					
Yes	225 (57.7)	165 (42.3)	390	1.39 (0.99-1.96)	0.059
No	98 (49.5)	100 (50.5)	198	1	
Access to radio					
Yes	291 (56.1)	228 (43.9)	519	1.48 (0.89-2.44)	0.128
No	32 (46.4)	37 (53.6)	69	1	
Access to Television					
Yes	237 (59.1)	164 (40.9)	401	1.70 (1.20-2.40)	0.003*
No	86 (46.0)	101 (54.0)		1	
Educational status of spouse					
Tertiary	174 (52.4)	158 (47.6)	332	0.79 (0.57-1.10)	0.162

^a n=557 † n=569 ^n=584 *p values <0.05 are considered significant, OR Odds Ratio, CI Confidence Interval

Variable	Male involvement		Total	OR (95%CI)	P-value
	Active (n%)	Passive (n%)			
Below tertiary	149 (58.2)	107 (41.8)	256	1	
Employment status (spouse)					
Employed	225 (60.8)	145 (39.2)	370	1.90 (1.35- 2.67)	<0.001*
Unemployed	98 (45.0)	120 (55.0)	218	1	
Decision maker on FP^a					
With spouse	273 (59.1)	189 (40.9)	462	2.15 (1.43- 3.23)	<0.001*
Spouse only	49 (40.2)	73 (59.8)	122	1	
Escorts spouse to FP Clinic					
Yes	204 (69.6)	89 (30.4)	293	3.39 (2.41- 4.77)	<0.001*
No	119 (40.3)	176 (59.7)	295	1	
FP is a woman's duty					
Yes	23 (49.0)	24 (51.0)	47	0.77 (0.42- 1.40)	0.389
No	300 (55.5)	241 (44.5)	541	1	
Family support to accompanying your spouse to the FP clinic					
Yes	267 (58.0)	193 (42.0)	460	1.78 (1.20- 2.64)	0.004*
No	56 (43.8)	72 (56.2)	128	1	

^a n=557 † n=569 [^]n=584 *p values <0.05 are considered significant, OR Odds Ratio, CI Confidence Interval

Variable	Male involvement		Total	OR (95%CI)	P-value
	Active (n%)	Passive (n%)			
Community support accompany your spouse to the FP clinic?					
Yes	277 (57.6)	204 (42.4)	481	1.80 (1.18- 2.75)	0.006*
No	46 (43.0)	61 (57.0)	107	1	
^a n=557 † n=569 ^n=584 *p values <0.05 are considered significant, OR Odds Ratio, CI Confidence Interval					

Predictors of active male involvement in family planning services

Male involvement in family planning services was predicted by access to television (AOR= 1.58, 95% CI: 1.05-2.39), spouse employment status (AOR= 2.02, 95% CI: 1.33-2.06), shared decision-making (AOR= 1.66, 95% CI: 1.05-2.62), and accompanying spouse to the FP clinic (AOR= 3.15, 95% CI: 2.16-4.62). (Table 5).

Table 5
Predictors of active male involvement among the respondents

Variable	AOR (95%CL)	P value
Occupational status^a		
Skilled	0.98 (0.64-1.49)	0.924
Unskilled	1	
Access to Newspaper		
Yes	0.94 (0.62-1.41)	0.749
No	1	
Access to radio		
Yes	1.30 (0.73-2.32)	0.369
No	1	
Access to Television		
Yes	1.58 (1.05-2.39)	0.028*
No	1	
Educational status of spouse		
Tertiary	1.29 (0.83-1.99)	0.256
Below tertiary	1	
Employment Status (Spouse)		
Employed	2.02 (1.33-3.06)	0.001*
Unemployed	1	
Decision maker on FP		
With spouse	1.66 (1.05-2.62)	0.029*
Spouse only	1	
Accompanies spouse to FP Clinic?		

*p values <0.05 are considered significant, AOR Adjusted Odds Ratio, FP Family Planning

Variable	AOR (95%CL)	P value
Yes	3.15 (2.16-4.62)	<0.001*
No	1	
Does your family support accompanying your spouse to the FP clinic?		
Yes	1.26 (0.77-2.07)	0.351
No	1	
Does your community support accompany your spouse to the FP clinic?		
Yes	1.31 (0.78-2.21)	0.298
No	1	
*p values <0.05 are considered significant, AOR Adjusted Odds Ratio, FP Family Planning		

Discussion

We conducted this study to determine the level of male involvement and its predictors in family planning services among men of the state. We found a significant, moderately active involvement among the men. Access to television, the spouse's employment status, shared decision-making, and accompanying the spouse to the FP clinic were all predictors of male partner involvement.

The findings in this study showed that slightly more than half of the respondents were actively involved in FP services. This is in contrast to a study done in Ogun State, Nigeria, that noted an active involvement rate of 30.9%.[11] Additionally, researchers have reported lower rates of active involvement in Ghana (34.5%), Ethiopia (44%) and Bangladesh (40%).[4, 20, 21] However, a recent study in Ethiopia reported a higher active involvement rate of 68%, while an earlier study in an urban municipality in Bangladesh noted a male involvement rate of 63.2% in FP.[14, 22] Poor involvement could be attributed to the patriarchal society that exists in the African context, to the few male family planning methods and to prevailing myths and misconceptions associated with family planning use.[8, 21, 23, 24] This apathy can be reduced by improving on services available for men in the family planning clinic. Disseminating accurate information on the associated myths and misconceptions associated with FP services should be adopted.

Access to the media (newspapers, radio and television) were significant factors in determining active involvement in FP services by men. The only predictor among them was access to television. Access to the media is likely to enhance attitudes and behaviour change leading to improved male involvement in FP. Some researchers have also observed these findings in their various studies.[11, 14, 25–28] In Nigeria,

the mass media play a crucial role in disseminating health information and increasing awareness about health education. This, over time, changes the attitude and behaviour of the masses to achieving optimal health.[13] Seeing FP messages on television and hearing them on the radio are associated with reported modern FP use.[29]The media plays an important role in attenuating the public perception of risks and provides a key link in the risk communication process. Efforts should be made to increase media coverage, especially in areas where they are not easily seen.

The employment status of the spouse was a predictor in this study. This finding is consistent with the results of studies done in Ogun State and Bangladesh.[11, 14]Women who are employed are likely to be involved in decision-making.[30] Decision making is paramount in the uptake of reproductive health services. Additionally, women who are employed tend to plan their family size in such a way as to avoid hindrances to their services at their workplaces. Most men respect the desires of their wives and give them their total support in ways that they can. Men should be encouraged to allow their spouses seek for jobs and women should be made to understand the benefits of getting employed.

Men who accompanied their wives to the FP clinic were more likely to use family planning services. This is consistent with a South African study which admitted that social support and shared responsibility for family planning and contraceptive use (FP/C) positively influence male participation.[31]Nonetheless, the finding of a study in Osun State is at variance with this result.[32]Accompanying wife to FP clinic is likely to influence involvement in FP services because it is an outcome of spousal communication and joint decision making, which play a vital role in reproductive health issues.

Respondents who made joint decisions with their spouses or partners had an increased odds of being involved in family planning services. This is similar to findings from an earlier study conducted in Cross River State, Nigeria where the likelihood of using FP services increased when the decision was made jointly by both husband and wife.[33] This is also comparable to a study in Ethiopia which noted discussion with the spouse about FP issues to be a significant factor of male involvement.[34] A qualitative study in Malawi documented that shared decision-making in FP responsibilities is assisted by male involvement.[35] Furthermore, higher odds of male involvement were reported among men who jointly participated in decision-making with their partners.[36] Men are known to be culturally dominant and are expected to meet the sociocultural expectations and values attached to women and marriage.[37] [38] However, these men are beginning to accept the key messages of reproductive health services, and as such, take decisions that positively influence their involvement in FP practices.

The major strength of this study is that men were directly interviewed, instead of using their spouses as proxies. This gave the men better opportunities to express their opinions, ideas, and views more confidently. It was also a community-based study which would increase the generalizability of the study's findings. Concurrently, the limitations of this study include: being a cross-sectional study, causal inferences cannot be conclusively made; the certainty of recall bias and social desirability bias. There was no single index for measuring male involvement at the time of this study. This could account for differences between this study and other studies whose collection of data did not employ the same data

collection tool. These were, however, mitigated by assuring the respondents of their confidentiality and privacy, and an extensive literature review was done to select the questions used for measuring the dependent variable.

Conclusion

Active involvement of men in family planning services was moderate. This was predicted by access to television, employment status of spouse, shared decision-making and accompanying spouse to the FP clinic. There is a need to focus on the identified factors in order to improve the active involvement of men in FP services.

Abbreviations

AOR: Adjusted Odds Ratio

CPR: Contraceptive Prevalence Rate

FP: Family Planning

ICPD: International Conference on Population and Development

IQR: Interquartile range

LGA: Local government area

MMR: Maternal Mortality Ratio

NDHS: Nigeria Demographic Health Survey

NFELTP: Nigeria Field Epidemiology and Laboratory Training Program

OR: Odds ratio

SRH Sexual and Reproductive Health

TFR: Total Fertility Rate

WHO: World Health Organization

Declarations

Ethical approval and consent to participate

Approval for this study was obtained from the Ethics and Research Committee of the Federal Medical Centre, Umuahia with reference number FMC/QEH/G.596/Vol.10/301, and verbal permission was

obtained from the paramount rulers (Eze) of the 12 communities to be studied. Written informed consent was taken from all the study participants before enrolment in the study.

Consent for publication

Not Applicable

Availability of data and materials

The dataset analyzed in this study are available from the corresponding author on reasonable request

Competing interest

The authors declares that they have no competing interests

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None

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Authors' contribution

The study was conceived and designed by CIA, who was also in charge of the analysis, interpretation, and drafting of the manuscript. UNN and AU supervised the study, interpreted the data, and edited the manuscript. CDU and BNA contributed to the data interpretation and editing of the manuscript. UOA was responsible for data collection, data analysis and contributed to the design of the study. MSB contributed to data interpretation and editing of the manuscript. All authors revised the manuscript and approved the final manuscript.

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Figures

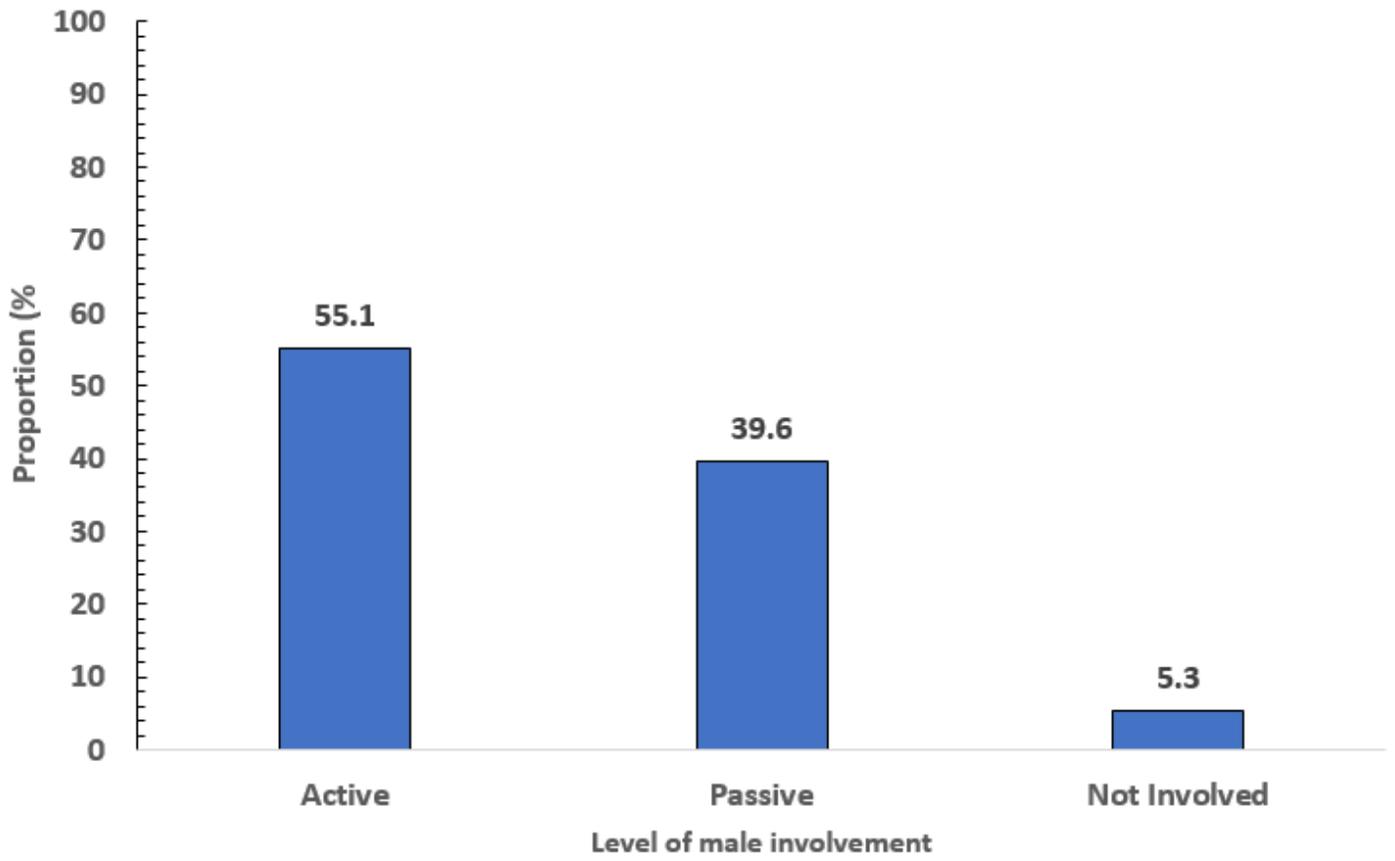


Figure 1

Proportion of male involvement in family planning services among the respondents