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Autonomy and utilisation of family planning services among women in Osun State, South-western Nigeria

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Abstract

Objectives: Women's autonomy has been established to substantially impact health-related outcomes, and it is crucial for the use of high-quality maternal healthcare services, including family planning services. This study aimed to assess the determinants of women's autonomy in household decision-making and its associated factors with utilisation of family planning services.

Methods: A descriptive cross-sectional study among women in Ifelodun Local Government Area (LGA), Osun State. Data was collected using a pretested semi-structured questionnaire from 388 respondents recruited using a multi-stage sampling technique. Data were analysed using IBM SPSS version 26. A binary logistic regression model was used to identify the predictors of women's autonomy in family planning utilisation. The level of significance was set at p -value <0.05 .

Results: The mean age of respondents was 39.7 ± 7.3 years, and about 67.8% of them had a high level of autonomy in household decision-making, with only 53.1% currently using modern contraceptives. At the bivariate level, women's age at marriage ($p=0.007$), children ever born ($p=0.034$), children alive ($p=0.026$), and ANC visits at last confinement ($p=0.043$) were statistically significant with autonomy. At the multivariate level, age of the women, age at marriage, occupation, family settings, husband's age, wealth index and positive perception about women's autonomy remained the predictors of women's autonomy in family planning services utilisation.

Conclusions: The study found that socio-demographic factors were significantly associated with women's autonomy in family planning services utilisation. Implementing targeted policies on female empowerment by policymakers will ultimately improve women's autonomy.

Keywords: Autonomy, Women, Family Planning, Utilisation, Services

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Plain English Summary

Women's ability to make their own decisions plays an important role in their health, especially when it comes to using good maternal health care and family planning services. This study aimed to assess the determinants of women's autonomy in household decision-making and its associated factors with utilisation of family planning services. This study was conducted among 388 women in Ifelodun Local Government Area, Osun State, to identify the predictors of women's autonomy in family planning utilisation. Most of the respondents are within 30-39 years, and about two-thirds of them had a high level of autonomy in household decision-making, with about half currently using modern contraceptives. Age of the women, age at marriage, occupation, family settings, husband's age, wealth index and positive perception about women's autonomy were found to be predictors of women's autonomy in family planning services utilisation. The study found that socio-demographic factors were associated with women's autonomy in family planning services utilisation. It suggests that implementing targeted policies on female empowerment by policymakers will improve women's autonomy in decision-making, which will eventually increase the utilisation of family planning services.

Background

Global inequities in women's healthcare decision-making continue to increase despite demands for women's empowerment. Women's autonomy has been established to have a substantial impact on health-related outcomes, increasing the number of medical visits, treatments, and adult survival (1, 2, 3). The degree of women's independence when it comes to money, issues about their health and that of their households, and their ability to go outside the house without permission is known as their decision-making autonomy, and it is thought to be a crucial intervention for the use of high-quality maternal healthcare services (3). Many women in sub-Saharan Africa (SSA) still have low rates of modern contraceptive usage and high rates of unmet need, despite increases in their understanding of modern contraception (MC) and desire to postpone or space childbirths (4).

The percentage of all Nigerian women who used modern contraception in 2023 was 14% and 16% for married or cohabiting Nigerian women. A global priority in closing this gap is presently being worked on through the United Nations Sustainable Development Goals (SDG) 3 and 5, which centre on good health and well-being and gender equality, as well as the Family Planning 2020 (FP2020) project (4, 5, 6). It is therefore not surprising that one of the SDG 5 indicators is linked to women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care" (6).

Studies have also shown how women's health is affected by decision-making access while choosing fertility control. Women's adoption of contraceptives is influenced by various factors, ranging from media exposure, educational attainment, preferences for male children, to fertility, among others (7, 8). Additionally, aspects related to the home or family, like autonomy and communication between spouses regarding family

planning, have been linked to the use of contraceptives (7, 8). While socio-cultural and behavioural views have been investigated, certain obstacles to the use of family planning services stem from demographic and economic backgrounds. This is particularly true in patriarchal societies, where males control the majority of authority, and women lack autonomy due to cultural norms and financial dependency. Consequently, all these profoundly impact the use of contraceptives and women's involvement in fertility decision-making (1, 3). Therefore, there is an urgent need to take into account women's autonomy regarding family planning because factors including fertility, family planning, and women's autonomy in making decisions are reportedly contingent upon their socio-cultural beliefs and demographic characteristics. Documented evidence also suggests that increased uptake of contraception directly leads to reductions in levels of hunger and poverty (3, 9).

The Nigerian Demographic and Health Survey (NDHS) report found the existence of wide geographical variations among women's decision-making autonomy about health care in Nigeria, with more Nigerian men, interestingly, wanting more children than women (10). According to data from the NDHS, the total fertility rate is 3.9 in Southwest, Nigeria, with Osun State having 3.8, which is a little lower than the average for the geopolitical zone (10). Also considering the complexity of family planning services utilisation in Nigeria, little is known about women's autonomy and its associated factors with utilisation of FP in Ifelodun LGA, Osun State. Therefore, it is hoped that findings from this study will provide the basis for effective prevention and intervention programs that will increase women's autonomy in decision-making at household levels and improve their utilisation of family planning services. Hence, the study aimed to assess the determinants of

women's autonomy in household decision-making and its associated factors with the utilisation of family planning services.

Materials and Methods

Study Area

The study was carried out in Ifelodun Local Government Area (LGA), Osun State, situated in the South-western part of Nigeria. Osun State has an estimated population of about 4.7 million inhabitants and a total area size of 14,875 square km (11). Ikirun town is the administrative headquarters of Ifelodun Local Government Area. Family planning services were usually received by women at the Primary Health Centres and the General Hospital in the LGA.

This was a descriptive cross-sectional study with the study population comprising women in households. Women above 15 years old who were married and living with their husbands, and who had given birth within one year before the study, were included in the study, while married women who were acutely ill and invalid were excluded from the study. Using Leslie Fisher's formulae (Z^2pq/d^2) (12). The minimum sample size calculated was 380, and the respondents were selected using a multi-stage sampling technique.

Stage one: From the list of all political wards in Ifelodun Local Government Area, 10 wards each will be selected by simple random sampling (balloting method).

Stage two: From the lists of all the streets in each selected ward, 2 streets will be selected from each of the 10 wards by a simple random method using the balloting technique, making a total of 20 streets.

Stage three: Then, in all the selected streets, a mapping of the houses was done. This was done by numbering the houses and then generating a sampling frame. Twenty households were selected from each street, making a total of 40 households per ward using simple random sampling. In each street, an extra five households were selected as replacement households. Lastly, in each selected household, a married woman was interviewed. In cases where no eligible woman was found in a selected house, such a household was replaced from the replacement list.

Data was collected with a pre-tested, self-developed, interviewer-administered semi-structured questionnaire. The research assistants included Community Health Extension Workers

(CHEWS) who were trained on how to use the study instrument for data collection.

The outcome variable for the study was decision-making autonomy by women, which was measured by women's participation in household decision-making and utilisation of family planning services, while the independent variables were their socio-demographic characteristics. In this study, the relationship between family planning services utilisation and the women's autonomy was measured by a composite of women's participation in decision-making and household status as determined by wealth index.

Women who took part in decision-making received a score of one (1); if they did not, they received a score of zero (0). A composite index was developed, with a zero representing minimal involvement in decision-making and a five representing considerable participation.

The questionnaires were manually sorted out, entered into a computer, and the obtained data were analysed using IBM SPSS version 26. Categorical variables were subjected to the Pearson chi-square. Data was presented using frequency distribution tables and bar charts as appropriate. At the bivariate level, associations between outcome variables and independent variables were assessed using the Pearson Chi-Square test with the likelihood ratio applied where the expected value is less than 5. Only variables that were statistically significant at the bivariate levels were entered into the binary logistic regression model to identify the predictors of women's autonomy in family planning utilisation. The level of significance for the study was set at p -value <0.05 .

Results

A total of 388 married women were involved in the study, making up 97% response rate, and their mean age was 39.7 ± 7.3 years. There were more respondents in the age groups 30-39 years, representing 174 (44.8%), while age groups 40-49 years, ≥ 50 years, and < 30 years accounted for 153 (39.4%), 37 (9.5%), and 24 (6.2%) respectively. As regards age at marriage in years, the majority, 224 (57.7%) of the respondents married between 25-29 years. The majority of the respondents, 307 (79.1%), had a tertiary level of education. Regarding the ages of the respondents' husbands, nearly half of them were between 40 - 49 years 188, (48.5%). (Table 1)

Table 1: Socio-demographic Characteristics of Women in Ifelodun Local Government Area of Osun State. (N = 388)

Socio-demographic Characteristics	Frequency	Percentage (%)
Age in years		
< 30	24	6.2
30 – 39	174	44.8
40 – 49	153	39.4
≥ 50	37	9.5
Mean age	39.7 ± 7.3	
Age at Marriage in years		
< 25	103	26.5
25 – 29	224	57.7
≥ 30	61	15.7
Mean age at Marriage	26.2 ± 3.1	
Husband's age (in years)		
< 40	111	28.6
40 – 49	188	48.5
50 – 59	67	17.2
≥ 60	22	5.7
Mean husband's age	43.7 ± 8.3	
Ethnicity		
Yoruba	338	87.1
Igbo	30	7.7
Others	20	5.2
Education status		
Primary	8	2.1
Secondary	73	18.8
Higher institution	307	79.1
Occupation		
Unemployed	11	2.8
Skilled worker	283	72.9
Semi-skilled	80	20.6
Unskilled	14	3.6
Monthly Income (in Naira)		
< 20,000	27	7.0
20,000 – 39,999	114	29.4
40,000 – 59,999	128	33.0
≥ 60,000	103	26.5
Nonresponse	16	4.1
Mean Income (in Naira)	49,041.4 ± 27,645	

Other ethnic groups include Hausa, Fulani, Tiv, Ijaw, and middle belt tribes

Autonomy in utilisation of family planning services among women showed that 365 (94.1%) agreed with their husbands on the number of children, and 23 (5.9%) disagreed on this. Also, 334 (86.1%) agreed that FP methods should be discussed with the husband. A significant proportion, 274 (70.6%) of the respondents agreed they can use a condom with their husband whenever they choose to. Half

of the study participants, 210 (54.1%), agreed that their husbands decide on when to use FP; however, 178 (45.9%) disagreed. Out of the study distribution, 285 (73.5%) of the respondents agreed that they decided on a place to access FP and 199 (51.3%) agreed that they did not decide on a health facility for postnatal care. (Table 2)

Table 2: Autonomy in Utilisation of Family Planning Services among Women in Ifelodun Local Government Area of Osun State. (N = 388)

Variables	Frequency	Percentage (%)
Agreed with husband on the number of children		
Yes	365	94.1
No	23	5.9
FP methods were discussed with the husband		
Yes	334	86.1
No	54	13.9

Can use a condom with my husband when I choose		
Yes	274	70.6
No	114	29.4
Husband decides when to use FP		
Yes	210	54.1
No	178	45.9
Respondents decide on a place to access FP		
Yes	285	73.5
No	103	26.5
Respondents decide on a health facility for Postnatal care		
Yes	189	48.7
No	199	51.3

FP – Family Planning

The utilisation of family planning services of respondents was scored, and 53.1% were currently using modern contraceptives, and 46.9% were not using modern contraceptives. However, 93.3%

were currently using a form of contraceptive (modern or traditional), and 6.7% were not using any form of contraceptives. (Figure 1)

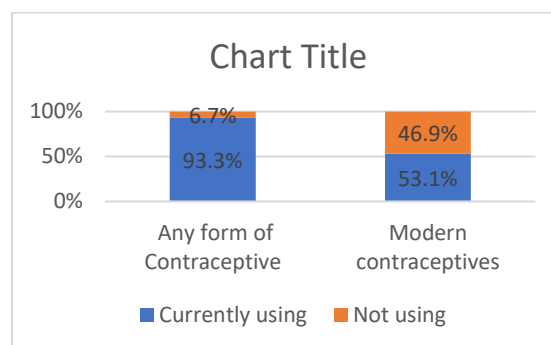


Figure 1: Utilisation of Family Planning Services among the study participants

The overall level of autonomy in household decision-making and utilisation of family planning services among women was scored, and 67.8%

had a high level of autonomy, while 32.2% had a low level of autonomy (Figure 2).

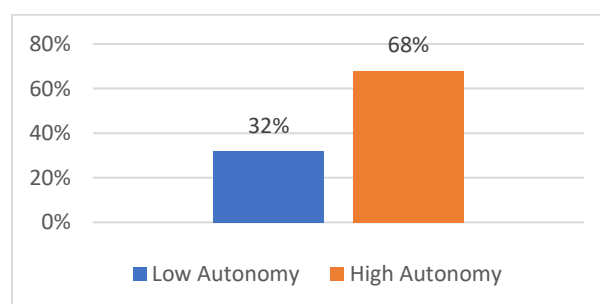


Figure 2: Overall Level of Autonomy in Household Decision Making among Women in Ifelodun Local Government Area of Osun State

The association between reproductive history and women's autonomy among respondents showed that age at marriage in years was statistically associated with women's autonomy ($p = 0.007$), such that those who were less than 25 years at marriage were least likely to have high decision-

making autonomy. There were also statistically significant associations between women's autonomy and children ever born ($p = 0.034$), children alive ($p=0.026$) and ANC visits at last confinement ($p=0.043$). (Table 3)

Table 3: Association between Reproductive History and Women's Autonomy in Ifelodun Local Government Area of Osun State (N = 388)

Variables	Women's Autonomy		Statistics
	Low	High	
Age at Marriage in years			
< 25	28 (45.9)	33 (54.1)	$\chi^2 = 9.910$ df = 2 p = 0.007*
25 – 29	74 (33.0)	150 (67.0)	
≥ 30	23 (22.3)	80 (77.7)	
Children ever born			
0 – 2	41 (40.6)	60 (59.4)	$\chi^2 = 6.750$ df = 2 p = 0.034*
3 – 4	75 (31.1)	166 (68.9)	
> 4	9 (19.6)	37 (80.4)	
Children alive			
0 – 2	44 (41.9)	61 (58.1)	$\chi^2 = 7.330$ df = 2 p = 0.026*
3 – 4	75 (29.6)	178 (70.4)	
> 4	6 (20.0)	24 (80.0)	
Last confinement in years			
≤ 5	66 (28.6)	165 (71.4)	$\chi^2 = 5.526$ df = 2 p = 0.063
6 – 10	29 (41.4)	41 (58.6)	
> 10	15 (24.2)	47 (75.89)	
ANC visits at LC			
< 4	26 (34.7)	49 (65.3)	$\chi^2 = 6.283$ df = 2 p = 0.043*
5 – 8	61 (27.5)	161 (72.5)	
> 8	38 (41.8)	53 (58.2)	
Gestational age at ANC registration at LC			
1 st trimester	56 (33.3)	112 (66.7)	$\chi^2 = 1.835$ df = 2 p = 0.399
2 nd trimester	64 (30.5)	146 (69.5)	
3 rd trimester	5 (50.0)	5 (50.0)	
Place of delivery at LC			
Health facility	107 (30.5)	244 (69.5)	$\chi^2 = 5.823$ df = 2 p = 0.054
Mission home	8 (42.1)	11 (57.9)	
Others	10 (55.6)	8 (44.4)	

Statistically significant; χ^2 = Chi-squared test used; df – degree of freedom; p – p-value

LC – Last confinement; ANC – Antenatal Care. Others include the traditional birth attendants' place, and at home

At the multivariate levels, using a binary logistic regression model, age was statistically significant, such that those who were >30-39 years had 4 times more high decision-making autonomy to utilise family planning services (OR=4.306, 95% CI 0.884-20.982, p=0.005). Moreover, age at marriage in years was statistically significantly associated, such that those who were 25- 29 years were almost 5 times more likely to have high decision-making autonomy to utilise family planning services (OR=4.531, 95% CI 1.786-11.496, p=0.001). In addition, occupation was significantly associated, such that skilled workers and semi-skilled workers were 5 times more likely to have high decision-making autonomy in the utilisation of family planning services.

Family setting was statistically significant, such that those who were from a monogamous family type were almost thrice likely to have high decision-making autonomy (OR=2.668, 95% CI -1.143-

6.224, p=0.023), compared to those from a polygamous family setting. Moreover, husband's age (in years) was such that those between 40-49 years were almost 3 times more likely, those between 50-59 years were almost 4 times more likely, and those who were ≥ 60 years were almost 8 times more likely to have spouses with high decision-making autonomy. Wealth index was significantly associated such that women with a high wealth index were twice as likely to have high decision-making autonomy in the utilisation of family planning services (OR=4.306, 95% CI 0.884-20.982, p=0.032). In addition, overall perception about women's autonomy was significantly associated, such that those with a positive perception were 2 times more likely to have high decision-making autonomy to utilise family planning services (OR= 2.024, 95% CI 1.170-3.501, p=0.012). (Table 4).

Table 4: Predictors of Women's Autonomy in Family Planning Utilisation in Ifelodun Local Government Area of Osun State (N = 388)

Variables	p-value	OR	95% CI	
			Lower	Upper
Age in years				
< 30	0.112	23.664	2.661	210.46
30 – 39	0.005	4.306	1.884	20.982
40 – 49	0.071	3.141	0.764	12.906
≥ 50 (R)				
Age at Marriage in years				
< 25				
25 – 29	0.197	1.635	0.775	3.448
≥ 30 (R)	0.001	4.531	1.786	11.496
Education status				
Primary	0.607	1.805	0.190	17.160
Secondary	0.651	0.806	0.318	2.056
Higher institution (R)				
Occupation				
Unemployed	0.378	3.577	0.210	60.97
Skilled worker	0.035	4.913	1.119	21.570
Semi-skilled	0.030	5.217	1.172	23.214
Unskilled (R)				
Family setting				
Monogamous	0.023	2.668	1.143	6.224
Polygamous (R)				
Husband's age (in years)				
< 40 (R)				
40 – 49	0.011	2.582	1.242	5.367
50 – 59	0.034	3.514	1.101	11.214
≥ 60	0.031	8.100	1.209	54.280
Wealth Index				
Low (R)				
High	0.032	2.010	1.062	3.806
Overall Perception about WA				
Negative (R)				
Positive	0.012	2.024	1.170	3.501

*Statistically significant; OR – Odds Ratio; CI – Confidence Interval; R – Reference value,
The Model controlled for socio-demographic and family Characteristics*

Discussion

This study contributed to the existing knowledge on women's autonomy and uptake of family planning services. Nearly half of the study participants were in the age group 30-39 years, and about three-quarters had a tertiary level of education; these findings were similar to those reported by a previous study on women's autonomy and family planning outcomes, where the mean age for women was 31 years, and 65% of the respondents also had higher levels of education (2). Autonomy in the utilisation of family planning services among women showed that 365 (94.1%) agreed with their husbands on the number of children. Also, 334 (86.1%) agreed that FP methods should be discussed with the husband. Our findings may be because about three-quarters of the respondents had a tertiary level of education, which could also confer upon them a high negotiating power, compared to their uneducated counterparts.

Similar findings were also documented in previous studies (13, 14). Hence, this suggests that women's level of education and autonomy have positive linkages with the utilisation of family planning services.

A significant proportion of the respondents agreed they can use condoms with their husbands whenever they choose to. This is similar to the findings from a study done in Lome, Togo, which shows that more men were likely to agree and participate in the usage of family planning methods when they are properly informed (15). Previous studies have also given strong evidence to suggest that spousal communication fosters contraceptive practice among couples. This gives credence to the fact that the man's role in deciding family size in sub-Saharan Africa, especially in the West African sub-region, cannot be downplayed (16, 17). Half of the study participants agreed that their husbands decide when to use family planning

services. This is in agreement with the results of a study done on women's autonomy and family planning among women in Isfahan, which showed that women expressed half (50%) of the possible autonomy (2). Another study carried out in Pakistan by Saleem and Bobak also found a direct correlation between women's autonomy and family planning utilisation (18).

Two-thirds of the women had a high level of autonomy in household decision-making in this study, and this is consistent but higher than that reported by a study conducted in Ethiopia by Kassahun and Zewdie, whose study found 57.9% high level of autonomy among their study participants and similar findings were also documented by the Ethiopian Demographic and Health Survey (19, 20).

However, a similar study conducted in Senegal gave divergent findings of a very low level of women's autonomy of about 6.26% (8). This observed difference might be due to cultural factors as well as variations in the employment status of the study participants. The better empowered women are, the easier it is for them to make decisions on matters related to major purchases and health care-seeking behaviours, which in turn improve their overall decision-making power and consequently their family planning services utilisation rates.

In this study, age was statistically significant, such that those who were >30-39 years had 4 times more high decision-making autonomy to utilise family planning services. Age at marriage in years was also statistically significantly associated, such that those who were 25- 29 years were almost 5 times more likely to have high decision-making autonomy to utilise family planning services. Our result is in tandem with findings from previous studies, where age and age at marriage were also statistically significant in their decision-making on contraceptive use, and older women had more autonomy in decision-making on contraceptive use (8, 21). These findings might be linked to the fact that younger women have less influence over their contraceptive decisions and may also have restricted access to related information. Similar studies have also corroborated that younger women have less negotiating power and limited educational opportunities due to early marriages, which subsequently reduce their uptake of modern contraceptives and increase desired fertility (22). Another significant element that has been linked to women's autonomy that may have an impact on FP services utilisation is occupation, as observed in the current study. Research has consistently shown that a woman's employment status has a

major impact on her amount of autonomy (1). This is due to the fact that employment tends to increase women's self-reliance and empowers them to actively participate in decision-making; hence, employed women may have more efficient contraceptive usage.

In this study, statistical significance was observed for wealth index, as women with a high wealth index were twice as likely to have high decision-making autonomy in the utilisation of family planning services. This is consistent with findings from a previous study on female and male partners' socio-demographic and economic characteristics associated with contraceptive decision making in Nigeria.(14) The reason for this could be that wealthy women are not only socio-economically empowered, but they also command attention from their society and can influence their household decision-making process. Overall perception about women's autonomy was significantly associated with FP utilisation, such that those with a positive perception were twice as likely to have high decision-making autonomy to utilise family planning services. Similar findings were seen in a previous study, where women who had a good perception about FP use were 7 times more likely to have decision-making power on family planning use than those with a poor perception (23).

Conclusion

This study found that women's age, age at marriage, occupation, family settings, husband's age, wealth index, and overall perception of women's autonomy were statistically significant variables for high decision-making autonomy to utilise family planning services. Therefore, there is a need for female education and targeted empowerment interventions at household levels in Nigeria to enable women to participate effectively in contraceptive decision-making, which will ultimately improve FP services utilisation.

Study limitation

The responses of the women in this study were self-reported and have to be accepted as they were stated; the research assistants were well-trained to minimise reporting bias.

Declarations

Ethics Approval and Consent to Participate

Ethical approval for the study was obtained from the Ethical Review Committee of the Osun State Ministry of Health (OSHREC/PRS/569T/333), and permission were sought from the Ifelodun Local Government Authority. Respondents were informed that participation is voluntary and that

they will not suffer any consequences if they choose not to participate in the study. All information gathered from all the respondents was kept confidential. Participants were identified using serial numbers.

Consent for Publication

All authors gave their consent for the publication of this work under the Creative Commons Attribution Non-Commercial 4.0 license.

Availability of Data

Data can be made available upon request by external researchers, and the corresponding author should be contacted to do so.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

Author Contributions

ARO: Conceptualisation, data collection, writing original draft, data analysis, supervision, methodology and revised the manuscript for intellectual content. OAO: Data collection, writing original draft and data analysis. IRO: Conceptualisation, writing original draft, wrote manuscript and revised the manuscript for intellectual content. AJO: Writing original draft, data analysis, writing review, and revised the manuscript. AAS: Supervised and revised the manuscript for intellectual content. AAA: Data collection, data analysis and supervision. AAO: Supervision, writing review and editing. FIO: Data analysis, methodology, and revised the manuscript for intellectual content. AMA: Methodology, writing review and editing, and data collection. AOL: Writing review and revised the manuscript for intellectual content.

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