WOMEN'S EMPOWERMENT AS A CORRELATE OF CONTRACEPTIVE USE IN NIGERIA

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Abstract
The relationship between women's empowerment and contraceptive use has not been sufficiently examined in Nigeria. This study therefore examines the association between women's empowerment and contraceptive use in the country. Quantitative data was extracted from the 2008 Nigeria Demographic and Health Survey (NDHS). Data was analysed using the chi-square statistic and binary logistic regression with the aid of STATA software. Results show that: women's control over own health care ($\chi^2 = 231, p < 0.05$); *visits to friends/relatives* ($\chi^2 = 203, p < 0.05$); *women's participation in decision about household large purchases* ($\chi^2 = 168, p < 0.05$); *women's participation in decision about household purchases for daily needs* ($\chi^2 = 308, p < 0.05$); *and women's education* ($\chi^2 = 51, p < 0.05$) *were significantly associated with contraceptive use. Results confirmed that empowered women were more likely to use contraceptive than unempowered women. For instance: women who have full control over own healthcare were 68% more likely to use contraceptive than women who had no control over own health care (OR = 1.6824, p<0.01); and women who had full participation in decision about household daily purchases were 148% more likely to use contraceptive than women who did not participate in the decision (OR = 2.74875, p<0.01). The study concluded that women's empowerment has significant influence on contraceptive use. Fostering an enabling environment for women to realise their full economic potential is not only a key challenge to governments at all levels in the country, but it is also required for accelerated growth in national contraceptive prevalence rate.*

Keywords: Autonomy, contraceptive use, empowerment, decision making

Introduction

In Nigeria, the current population structure is one of the basic impediments to government inability to improve quality of life of the citizenry (National Population Commission [NPopC], 2004). In many developing countries including Nigeria, rapid population growth is also a key constraint to the capacity of communities and nations to effectively cope with the consequences of climate change and environmental degradation (Guzman, George, Gordon, Daniel and Cecillia, 2009). The slow pace of progress in the attainment of the Millennium Development Goals (MDGs) in many sub Sahara African countries is not unconnected with the continued rapid population growth in the region.

At both individual and societal levels in most of sub-Sahara African countries, rapid population growth aggravates the demand for education, health, employment and other basic needs of life. The stabilization of population growth at low levels not only provides governments in the region with sufficient time and opportunity to develop long lasting policy initiatives to address social, economic and other challenges, it also enhance prospects for demographic dividends in the region. One way of achieving slow population growth and ultimately benefiting from the demographic dividend is boosting modern contraceptive use among individuals and couples particularly women. This is to afford individuals or couples the opportunity to space or time their pregnancies. However, the benefits of contraceptive use transcend spacing and timing of pregnancies.

Evidence abounds that contraceptive use and family planning, are a good investment that saves lives and resources (United States Aid for International Development [USAID], 2009 and Klag, 2012); provide critical link to achieving all

the eight Millennium Development Goals (Cates Jr, 2010); and averts maternal deaths (Ahmed, Li, Liu and Tsui, 2012). Besides, contraceptive use as well as other policy initiatives that result in lower birth rates brings societies closer to the day when population growth no longer acts as a complicating force in human life (Engelman, 1997).

In spite of the benefits of contraceptive use to women and societal well-being, the use of modern contraceptives by couples and individuals to limit or plan the spacing and timing of births is low in Nigeria. Though with marked geographical and individual level variations, contraceptive knowledge is high in the country, however substantial gap exist between contraceptive knowledge and use in the country (Ogunjuyigbe, Solanke, Oladosu and Akinlo, 2012). The 2008 Nigeria Demographic and Health Survey (NDHS) revealed that among currently married women, 68.4 percent reported knowledge of any method (traditional and modern), while 67 percent reported knowledge of at least one modem method. Among women who reported knowledge, 28.8 percent and 23.7 percent had ever used any method and any modern method respectively. The proportion of women who reported current use of method was much lower, only 14.6 percent of the women were currently using any method of contraception and only 9.7 percent were currently using any modern method as at the time of the survey. The NDHS further showed that more than half of the women (55.3 percent) do not intend to use any method in the future (NPopC and ICF Macro, 2009).

Recent government interventions to boost contraceptive use in the country include: formulation and implementation of Population and Reproductive Health Policies; development and implementation of Contraceptives Logistics Management System (CLMS); advocacy through convocation of Reproductive Health Summit in 2004, Family Planning Conferences in 2010 and 2012; formation of the Family Planning Action Group (FPAG); and the introduction of free contraceptive commodities in public health facilities since April 2011 (Federal Ministry of Health [FMOH}, 2012).

Though, these interventions may be yielding positive results, several factors still impede contraceptive use in Nigeria (Monjok, Smesny, Ekabua and Essien, 2010). Many Nigerian women, particularly the poorly educated and rural based still don't have unhindered access to modern contraceptive methods. In some communities in the country where contraceptive methods are available, utilisation is still affected by diverse cultural practices, one of which is the practice of relegating women to the background when important family or households decisions are to be taken. This practice has resulted into lack of social and economic empowerment for most women in the country, consequently, Nigerian women are rated low on several measures of empowerment such as financial autonomy, education, and household decision making. For instance, most Nigerian women lack financial autonomy and have no opportunity to take control of their affairs or reduce existing inequality when compared with men.

Studies in many parts of the world have shown that women's empowerment (that is given women more autonomy and opportunity to take control of their affairs and to reduce existing inequality when compared with men) is associated with reproductive health (Matthews, Brookes, Stones and Hossain, 2005; Yesudian, 2009; Woldemicael, 2009; Upadhyay and Karasek, 2010; Singh and Bloom, 2011; Do and Kurimoto, 2012; Wado, 2013; Tadesse, Teklie and Gebreselassie, 2013). However, the relationship between women's empowerment and contraceptive use has not been sufficiently examined in Nigeria.

Against this backdrop, the study examines the association between women's empowerment and contraceptive use in the country. The specific objectives of the study are therefore to: further assess the association among women's autonomy and education and contraceptive use; and ascertain the relationship between women's participation in household decision making and contraceptive use. The study is guided by the following research hypotheses:

(i) Women's autonomy is not associated with contraceptive use;
(ii) Women's participation in household decision making is not associated with contraceptive use; and
(iii) Women's educational attainment is not associated with contraceptive use

Theoretical framework

In all developing countries, women are not equal to men in legal, social, and economic rights. Gender inequalities are pervasive in access to and control of resources including inequalities in economic opportunities, political power and decision making (World Bank, 2003). Several explanations including the socio-biology theory (Wilson, 1975) have been put forward to explain the subordinate position of women in many societies. These theories believed that sex and gender differences shape human behaviour including reproductive behaviour of men and women.

However, this study is anchored on feminist theory, which offers explanation for understanding human behaviour by focusing on women and issues confronting women in contemporary society (Lay and Daley, 2007). Feminism emanated from the general movement to empower women in Europe and America. Its current wave is attributed to Friedan (1963). Based broadly on lack of consensus on how best to address gender inequality, diversities of feminism exist. They include: Humanist feminism, Marxist and Socialist feminism, Black feminism, Radical feminism and Liberal feminism among others. The radical and liberal feminist schools of thought have relevance for current state of gender relations in Nigeria.

Radical feminism believe that through patriarchy, men have always dominated and rule societies. Men through the institutions of marriage and family continually exploit women and are the sole beneficiary of the subordination of women. Women as the oppressed group in the society must struggle to attain liberation from men through revolutionary change (Haralambos, Holborn and Heald, 2004). Though, Nigeria is largely a patriarchal society, the position of women in the country is however, gradually being transformed with the assistance and collaboration of men contrary to the submission of the radical feminists'. Liberal feminism not only aims at achieving equal legal, political arid social rights for women, it also seeks to bring women equally into public institutions and raise women's issues to the fore of national discourse (Sotunsa, 2008). Liberal feminists believe that educational reform and enactment of appropriate legislations are key instruments that could be used to propel gender equity. Hence, rather than strive to overthrow current male-dominated system as advocated by radical feminists, liberal feminists seek to improve the lot of womenfolk by working for change within the current system.

This is the case in contemporary Nigeria. Educational reforms, population and health programmes being implemented in the country have resulted in considerable improvement in the status of women in the country. Women's issues now feature prominently in national discourses. The Nigeria 1999 Constitution guarantees equal rights to men and women in the country. Several women-centered policies and strategies (such as the 1998 National Policy on the Elimination of Female Genital Mutilation, 2007 National Gender Policy, and 2008-2013 National Gender Policy Strategic Framework) have been developed to promote women concerns and to accelerate gender equality in the country.

Besides, Nigeria is a signatory to the Convention on the Rights of the Child (CRC), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and the African Charter for Human and People's Rights. The challenge for the government of Nigeria is to domesticate these international laws and conventions. Many giant steps have been taken by women organizations and other civil society groups in the country. As observed by Omotola (2007), in contemporary Nigeria, there are numerous women's organisations with the aim of improving women's empowerment and achieving gender equality.

Prominent among them are: National Council of Women Societies (NCWS); Justice, Development and Peace Commission (JDPC); Community Partners for Development (CPD); Gender and Development Action (GADA); Young Women's Christian Association (YWCA); Federation of Muslim Women Association of Nigeria (FOMWAN); National Association of Women Lawyers (NAWL); Women in Nigeria (WIN); and Women's Rights Advancement and Protection Alternative (WRAPA). However, more needs to be done not only to further empower Nigerian women, but to also ensure that women's empowerment translate into improved reproductive health of women in the country.

Data source and sample size

Quantitative data was extracted from the 2008 NDHS which remains the most valid national estimate of demographic characteristics in the country until the recently concluded 2013 survey is available for use. A total of 33,385 women were sampled in the survey. However, some of the women were excluded from the current analysis. Women who: were never married (8,021); currently pregnant (3,460); and those who were not sexually active (3,007) were excluded from analysis since they were not likely to have need for contraceptive as at the time of the survey. Thus, the analysed sample size following appropriately weighting is 18,762 women. Information extracted includes the background characteristics of the women, knowledge and use of contraceptives, and responses to relevant women's empowerment issues.

Research variables

The independent variable is the set of women's empowerment measure namely, women's autonomy and participation in household decision making and education. For over a decade, the Demographic and Health Survey (DHS) have consistently collected information on two dimensions of women's empowerment, namely participation in household decision making and women's gender-role attitudes (Kishor and Subaiya, 2008). However, gender role attitudes was not analysed in this study. Data on women's autonomy and participation in household decision making were derived from women's responses to questions on who has final say on:

Control over own earnings;
Own health care;
Visits to friends and relatives;
Deciding what to do with money earned by husband;
Making large household purchases; and
Making large household purchases for daily needs

Women autonomy was measured in terms of whether women have full, partial or no control over: own cash earnings; own healthcare; and visits to friends/relatives. Those who have exclusive control over their earnings were defined as having "full control". Those who take joint decisions with male partner on each autonomy measure were defined as having "partial control". Others were defined as having "no control". Participation in household decision making was also measured along the same tripartite scale used to measure women's autonomy. The dependent variable in the study is contraceptive use. This was measured by current use of any contraceptive method and dichotomised into 'currently using' and 'not currently using'.

Statistical analysis

The STATA (Version 12) computer software was used for statistical analysis. At all levels of data analysis, standard weights and svy codes were used to address shortcomings of complex sample design such as the 2008 NDHS (StataCorp., 2009). The sample characteristics were described using frequency tables. The Pearson chi-square statistic was used to examine the association between variables measuring women's empowerment and contraceptive use. Association was adjudged to be significant if the p-value was less than 0.05. The simultaneous influence of the set of explanatory variables on contraceptive use was examined using the binary logistic regression. The logistic regression model constructed for analysis was specified as:

$$\log it[\pi(x)] = \beta_0 + \beta_{ctr} + \beta_{ctr1} + \beta_{ctr2} + \beta_{ctr3} + \beta_{ptr} + \beta_{ptr1} + \beta$$

Where:

ctr = control over own earnings
ctr_1 = final say on own health care
ctr_2 = final say on visits to friends and relatives
ctr_3 = final say on deciding what to do with money husband earns
ptr = final say on making large household purchases
ptr_1 = final say on making large household purchases for daily needs
edu = women's education
x = women's empowerment
$\pi(x)$ represents the probability of contraceptive use given women's empowerment
β_o, β_i's are the unknown parameters of the model estimated by maximum likelihood technique in the STATA software. These variables are widely used as appropriate measure of women's autonomy and participation in household decision making (Hindin, 2005, Kishor and Subaiya, 2008, and Wado, 2013).

Results

Sample characteristics

Selected socio-demographic characteristics of the respondents are presented in Table 1. Nearly half (48.0%) of the sampled women had no formal

education. However, among those with educational attainments, the dominant educational level is secondary education (22.6%). More rural women (67.6%) were sampled compared with urban-based women (32.4%). Majority of the women (43.5%) belong to households with lowest wealth index. Nearly one-third of the women (31.4%) were not working as at the time of the survey. More than a quarter of the respondents (28.3%) were less than 14 years as at their first marriage indicating that early marriage remain prevalent in the country. Majority of the sampled women (68.6%) have knowledge of at least a method of contraception, but only 18.3% of the women are currently using a modern method of contraception.

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency	Percent
Education		
None	8,999	48.0
Primary	4,079	21.7
Secondary	4,239	22.6
Higher	1,446	7.7
Place of residence		
Urban	6,088	32.4
Rural	12,674	67.6
Wealth group		
Lowest	8,160	43.5
Middle	6,795	36.2
Highest	3,807	20.3
Employment status		
Not working	5,887	31.4
Working	12,876	68.6
Age at first marriage		
14 years or less	5,317	28.3
15-24 years	11,552	61.6
25-34 years	1,796	9.6
35 years and above	99	6.5
Knowledge of any method		
No knowledge	5,890	31.4
Has knowledge	12,872	68.6
Current use of any modern method		
Not using	15,322	81.7
Using	3,441	18.3
Total	18,762	100.0

Source: 2008 NDHS

State of women's autonomy and participation in decision making

Results showing the state of women's autonomy and participation in household decisions among the sampled women are presented in Table 2. Overwhelming majority of the women (68.4%) had full autonomy over their own cash earnings. The women were less autonomous with regard to own health care and visits to friends/relatives. More than half of the women (56.5%) of the women had no control over own health care and nearly half of the women (45.2%) had no control over visits to friends/relatives. However, substantial proportions of the women had 'partial control' over own health care (33.5%) and visits to friends/relatives (43.5%).

Results of women's participation in household decision making revealed that the proportion of women involved in household decision making leaves much to be desired. Majority of the women sampled (71.1%) did not participate in decisions about how the money earned by their husbands was spent, reflecting well entrenched

patriarchal nature of most Nigerian communities. Similarly, high proportions of the respondents did not participate in decisions about household large purchases (62.6%) and household purchases for daily needs (50.6%). These results reinforce the view that women's social position in Nigeria requires improvement.

Table 2: Distribution of respondents by women's empowerment measures

Empowerment measures	Number of women	Percent
Own cash earnings		
No control	1,270	12.4
Partial control	1,977	19.2
Full control	7,031	68.4
Own health care		
No control	9,919	56.5
Partial control	5,888	33.5
Full control	1,762	10.0
Visits to friends/relatives		
No control	7,953	45.2
Partial control	7,634	43.5
Full control	1,978	11.3
Decision on money husband earns		
No participation	12,412	71.1
Partial participation	4,054	23.2
Full participation	1,002	5.7
Decision on large household purchases		
No participation	10,997	62.6
Partial participation	5,593	31.8
Full participation	978	5.6
Decision on household daily purchases		
No participation	8,889	50.6
Partial participation	5,719	32.6
Full participation	2,900	16.8

Source: 2008 NDHS

Women's autonomy and contraceptive use

The relationship between women's autonomy and contraceptive use are presented in Tables 3. Though, the chi-square statistic ($\chi^2 = 52, p < 0.05$) showed significant association between women's autonomy over own cash and contraceptive use, this does not imply that women who had full autonomy over own cash earnings were more likely to use contraceptives. As shown in the table, the proportion of current contraceptive use was higher among women who had 'partial control' over own cash earnings indicating that couples decision may have more influence on contraceptive use within households irrespective of the financial autonomy of the woman.

Women's autonomy over own health care and visits to friends/relatives were significantly associated with contraceptive use. Women who had full control over own healthcare had higher contraceptive use compared with women who had no control or those who had partial control ($\chi^2 = 231, p < 0.05$). Similarly, women who had full control over visit to friends/relatives had higher contraceptive use compared with women who had no control or those who had partial control ($\chi^2 = 203, p < 0.05$).

Table 3: Women's autonomy and contraceptive use

Variable	Not using Number (%)	Using Number (%)	χ^2-value	p-value
Own cash earnings				
No control	1,007 (79.3)	263 (20.7)		
Partial control	1,293 (65.4)	683 (34.6)		
Full control	5,633 (80.4)	1,378 (19.6)	52	p<0.05
Own health care				
No control	8,826 (89.0)	1,093 (11.0)		
Partial control	4,261 (72.4)	1,628 (27.6)		
Full control	1,201 (68.2)	561 (31.8)	231	p<0.05
Visit to friend/relative				
No control	7,184 (90.3)	772 (9.7)		
Partial control	5,767 (75.5)	1,870 (24.5)		
Full control	1,339 (67.7)	639 (32.3)	203	p<0.05

Women's participation in household decision making and current contraceptive use

The relationship between women's participation in household decision-making and contraceptive use are presented in Table 4. Results reveal that women's participation in decisions about money husband earns ($\chi^2 = 107, p < 0.05$), household large purchases ($\chi^2 = 168, p < 0.05$), purchases for household daily needs ($\chi^2 = 308, p < 0.05$) were significantly associated with contraceptive use. However, higher proportions of current contraceptive use were found among women who had only 'partial participation' in the decisions about husband money and household large purchases. In contrast, women who had 'full participation' in household decision about purchases for daily needs had higher contraceptive use compared with other women.

Table 4: Women's participation in household decision making and contraceptive use

Decision	Not using Number (%)	Using Number (%)	χ^2-value	p-value
Money husband earns				
No participation	10,283 (84.8)	1,849 (15.2)		
Partial participation	2,876 (70.9)	1,178 (29.1)		
Full participation	807 (80.6)	194 (19.4)	107	p<0.05
Large household purchases				
No participation	9,499 (86.9)	1,428 (13.1)		
Partial participation	5,991 (71.4)	1,602 (28.6)		
Full participation	746 (76.3)	232 (23.7)	168	p<0.05
Household daily purchases				
No participation	8,040 (91.1)	781 (8.9)		
Partial participation	4,230 (74.0)	1,489 (26.0)		
Full participation	1,966 (66.4)	994 (33.6)	308	p<0.05

Women's education and contraceptive use

The relationship between women's educational attainment and contraceptive use are presented in Table 5. Results reveal that as educational attainment progresses from none to primary and secondary levels, contraceptive use correspondingly increase. However, a dip occurred among women with higher educational attainment. The decline in contraceptive use among women with higher education may be as a result of high desire for children due to late marriage after completion of higher education. Overall, education was significantly associated with contraceptive use ($\chi^2 = 51, p < 0.05$).

Table 5: Women's education and contraceptive use

Educational level	Not using Number (%)	Using Number (%)	χ^2-value	p-value
None	8,627 (95.9)	372 (4.1)		
Primary	3,205 (78.6)	874 (21.4)		
Secondary	2,678 (56.1)	1,561 (43.9)		
Higher	812 (81.7)	634 (18.3)	51.2	p<0.05

Multivariate analysis

The binary logistic regression was performed to test the study hypotheses. The logistic model constructed controlled for the socio-economic and demographic characteristics of the women. This was done to reveal the extent of contraceptive use that may be solely attributed to women's empowerment. The results are presented in Table 6. As shown in the results, two of the autonomy measures showed significant influence on contraceptive use.

Women who had full autonomy over own health care (OR = 1.6824, p<0.01) and full control over visits to friends and relatives (OR = 2.0666, p<0.01) have higher likelihood of contraceptive use than other women, indicating that women who had full control over own healthcare were 68% more likely to use a modern contraceptive method compared with women who had no control over own healthcare, and women who had full control over visits to friend/relatives were 106% more likely to use a modern contraceptive method compared with women who had no control over visits to friends/relatives.

Table 6: Logistic regressions examining the influence of women's empowerment measures on current contraceptive use, Nigeria

Women's empowerment measures	Odds Ratio	95% Confidence Interval
Autonomy		
Own cash earnings		
No control (RC)	1.0000	
Partial control	0.7603***	0.5739 – 1.0073
Full control	0.6007*	0.4839 – 0.7456
Own healthcare		
No control (RC)	1.0000	
Partial control	13188**	1.0594 – 1.6418
Full control	1.6824*	1.3205 – 2.1434
Visit to friends/relatives		
No control (RC)	1.0000	
Partial control	1.3659***	1.0859 – 1.7184
Full control	2. 0666*	1.5795 – 2.7040
Household Decision making		
Money husband earns		
No participation (RC)	1.0000	
Partial participation	1.2539**	1.0184 – 1.5439
Full participation	1.0444***	0.7964 – 1.3697
Household large purchases		
No participation (RC)	1.0000	
Partial participation	1.2239***	0.9721 – 1.5409
Full participation	0.5930*	0.4563 – 0.7705
Household daily purchases		
No participation (RC)	1.0000	
Partial participation	1.5501*	1.2108 – 1.9844
Full participation	2.4875*	1.9791 – 3.1253
Education		
None (RC)	1.0000	
Primary	4.6085*	3.6612 – 5.8009
Secondary	8.0044*	6.2713 – 10.2164
Higher	9.2205*	6.9361 – 12.2575

Note: RC mean Reference category, * $p \leq 0.01$, ** $p \leq 0.05$, *** $p > 0.05$

Women's full control over own cash earnings did not exert significance influence over contraceptive use suggesting that a woman with full financial autonomy does not necessarily have higher use of contraceptive than other women. However, the odds ratio for women who had 'partial' control over own cash earnings was higher than the odds ratio for women with 'no' or 'partial' control. As shown in the result, women who had 'full' participation in household decision about purchases for daily needs were 148% more likely to use contraceptives than other women (OR = 2.4875, $p<0.01$). Though, women who have 'partial' participation in household decision about money husband earns and decision about large household purchases consistently have higher odds of contraceptive use than other women who did not participate in the decisions, the results were however not statistically significant ($p>0.05$).

Discussion and conclusion

Findings of this study reveal that the position of women in Nigerian with respect to empowerment needs improvement as reflected in non participation in key household decisions. The high proportion of women with no formal education may be the key causation of the low

empowerment among the women as found in the study. As asserted by the liberal feminist, improving women's education can play a vital role in enhancing the status of women in the country. With improve education of the womenfolk, several women will not only become aware of their basic rights and privilege, many more will have the opportunity to work in the formal sector of the economy and also play more role in advocating for the enactment of laws that protect women's health and well-being. Governments at all levels in the country are therefore encouraged to increase public investment in women's education not only to raise their living conditions and status, but also to provide women with more opportunity to access reproductive healthcare. The lack of full autonomy over women's own healthcare and visits to friends/relatives as found in this study not only undermine women's constitutional rights, it usually lead to delay in seeking and accessing reproductive health services.

Higher likelihood of contraceptive use found among women who had full control over own healthcare and visits to friends/relatives lends credence to the feminist assertion that liberty and gender equity promotes women's quality of life and suggest the need for special programmes targeting men in marital unions to recognise the need for greater autonomy of women on reproductive health matters. Consistent with earlier studies such as Do and Kurimoto, 2012; Wado, 2013; and Tadesse *et al.* 2013, it was also found that women who participated in household decision-making had higher contraceptive use. These points should be clearly incorporated into all existing interventions by government and non government organisations, particularly the women-centered strategies of the National Population Commission.

Women's rights should not remain a constitutional prescription, but should be well protected by effective implementation of women-centered programmes. Above all, fostering an enabling environment for women to realise their full economic potential is not only a key challenge to governments at all levels in the country, but it is also required for accelerated growth in national contraceptive prevalence rate. In conclusion, women's empowerment has significant influence on contraceptive use in the country.

Study limitation

Analysis carried out in this study may not be sufficient to assert a cause-effect relationship between women's empowerment and use of contraceptives. The association found in the study may only depict the state of women's empowerment and contraceptive use at the time of the 2008 survey. Further studies employing the use of both quantitative and qualitative data are required to establish with more precision, the direct effect of women's empowerment on contraceptive use. The time lag between the data collection and current analysis may also limit the power of inference made in the study.

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