Assessing the Influence of Mass Media on Contraceptive Use in Nigeria: A Secondary Analysis of 2013 Nigerian National Demographic and Health Survey

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Abstract

Background: The low contraceptive use in Africa has been severally linked to ignorance and misconceptions. Media platforms provide potential avenues for addressing these misconceptions. This study is aimed at evaluating the influence of media exposure on contraceptive use among Nigerian women. **Materials and Methods:** We conducted a weighted analysis of data from the 2013 Nigerian Demographic and Health Survey that included 38,948 women aged 15–19 years using STATA software, version 12.0 SE (Stata Corporation, TX, USA) to investigate the influence of media exposure on contraceptive use among Nigerian women using logistic regression models. The result was presented in odds ratio (OR) and 95% confidence interval (CI). **Results:** The contraceptive use among the respondents was 14.88%, comprising mainly of modern methods (64.2%; *n* = 3006). After controlling for age, educational status, religion, wealth status, and other potential confounding variables, the use of contraceptives was significantly associated with reading newspapers for at least once a week (OR = 1.16; 95% CI = 1.01–1.32), and watching television for at least once a week (OR = 1.16; 95% CI = 1.01–1.32), and watching television for at least once a week (OR = 1.39; 95% CI = 1.20–1.61). There was an improvement in the odds in favor of contraceptive use among the women when the frequency of media exposure was increased to at least once a week. **Conclusion:** Contraceptive use among women in Nigeria is positively influenced by exposure to media which improves with increasing frequency of exposure. This finding provides a potential opportunity for improving contraceptive utilization in the country using the various mass media platforms.

Keywords: Attitude, contraceptives, determinants, family planning, perception, predictors, unmet need

INTRODUCTION

Contraceptive use is crucial to improving women's reproductive and sexual health and upholding their reproductive rights. Despite increasing activities of reproductive programs within Africa, the contraceptive utilization in the region has remained low.^[1-3] There are varied reasons for the poor use of contraceptive commodities and these include ignorance, lack of access, fear of side effects, misconceptions about family planning, poor attitude of providers, negative influence of the churches, and lack of support from men.^[2-6]

The mass media plays a key role in shaping a society's way of thinking and disposition to issues. It also affects the disposition and attitude of policymakers to issues including reproductive health issues. Often times, policymakers need

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to be persuaded by evidence and advocacy in order to pay attention to reproductive health issues.

In other countries, exposure to media messages has been associated with the use of contraceptives.^[8-14] In Nigeria, although studies have linked source of contraceptive information to mass media,^[15,16] studies on the direct impact of mass media on the use of contraceptives are lacking. This study, therefore, is aimed at closing this obvious gap in knowledge by reviewing the Nigerian National Demographic

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and Health Survey (NDHS) 2013 in order to evaluate the influence of media exposure on the use of contraceptives among Nigerian women. The finding will provide a vital clue into the potential vast opportunity inherent in the use and engagement of the mass media to improve contraceptive behavior among Nigerian women.

Aim

This study aimed to determine the influence of media exposure on the use of contraceptives by women in Nigeria.

MATERIALS AND METHODS

The data used for this analysis were the data set for the Nigerian NDHS 2013 survey which were downloaded from the DHS measure website after registration and obtaining permission. The survey included 38,948 women aged 15-19 years and 38,522 households. It was carried out between February 2013 and June 2013. The survey used 3-stage stratified cluster sampling technique designed to provide population and health indicator estimates at national, regional, and state levels. The sampling frame used was the list of households from the enumeration areas (EAs) prepared for the 2006 Population Census of the Federal Republic of Nigeria, provided by the National Population Commission. Administratively, Nigeria is divided into states. Each state is subdivided into local government areas (LGAs), and each LGA is divided into localities. In addition to these administrative units, during the 2006 population census, each locality was subdivided into census EAs. The primary sampling unit, referred to as a cluster in the 2013 NDHS, is defined on the basis of these EAs from the 2006 EA census frame.

A complete listing of households and a mapping exercise were carried out for each cluster from December 2012 to January 2013, with the resulting lists of households serving as the sampling frame for the selection of households. All regular households were listed. The National Population Commission listing enumerators were trained to use Global Positioning System receivers to calculate the coordinates of the 2013 NDHS sample clusters.

There were 904 clusters consisting of 372 in urban areas and 532 in rural areas. A fixed sample of 45 households was selected per cluster. The respondents included all women aged 15–49 years who were either permanent residents of the households in the sample or visitors present in the households on the night before the survey were also included in the interview. The detailed description of the methodology for the Nigerian NDHS study has been described elsewhere.^[6]

The primary outcome variable for this study is the current use of contraceptives dichotomized into use of any method versus use of no method. The dependent variables include the three main media channels of radio, television, and newspaper/magazine through women access health information. The following factors were identified as potential confounding variables: age, level of education, religion, household wealth level, level of participation in household decision-making, marital status, and geopolitical zone. Others include place of residence, working status, number of living children, insurance cover, and discussion on family planning with a health-care worker. These were included in the final analysis.

Data analysis was done using STATA software, version 12.0 SE (Stata Corporation, TX, USA) after data cleaning and recoding. Three levels of analysis were done. First, descriptive statistics were done to determine the frequencies of sociodemographic, socioeconomic, and media exposure of the respondents. This was then followed by bivariate logistic regression at the second-level analysis to study the effect of media exposure on use of contraceptives. Significance at bivariate logistic regression was set at P < 0.05 at 95% confidence interval (CI).

Third, the media exposure variables that were found to be significant at bivariate logistic regression were then introduced into the multiple logistic regression models that included the confounding variables to study the true and independent influence of the media variables on contraceptive use among the women. P < 0.05 at 95% CI was taken as significant. The results are presented in odds ratios (ORs) with 95% CIs.

RESULTS

The total number of women studied was 38,948. The modal age group was 25-34 (49.9%; n = 15,698) and majority of the women resided in rural areas (67.1%; n = 21,131). Most of the women had less than secondary education (67.3%; n = 21,194), were currently working (68.9%; n = 21,697), and were from a poor economic background (45.9%; n = 14,462). Majority of the women did not read newspapers/magazine (85.9%; n = 26,874); 34.8% (n = 10,718) reported listening to radio at least once a week and 28.5% (n = 8925) of them watched television at least once a week. The summary of the sociodemographic and the potential predictor variables is presented in Table 1.

The prevalence rate of current contraceptive use among the respondents was 14.88% (n = 4684), comprising mainly of the use of modern methods (64.2%; n = 3006) and traditional methods (30.7%; n = 1437) [Table 2].

On bivariate analysis, women who read newspapers for at least once a week (OR = 3.54; 95% CI = 3.23-3.89), who listen to radio for at least once a week (OR = 2.60; 95% CI = 2.38-2.85), and who watched television for at least once a week (OR = 4.68; 95% CI = 4.26-5.13) were more likely to be using contraceptives than those who were not exposed to these media modalities. There was an improvement in the odds for the three variables when media exposure increased to at least once a week [Table 3].

After controlling for age, educational status, religion, wealth status, region and area of residence, number of living children, and other potential confounding variables, the use of contraceptives was significantly associated with

Table 1: Distribution by sociodemographic and economic characteristics of the women

Sociodemographic/obstetric characteristics of the respondents	Frequency (%)		
Age group			
15-24	7614 (24.1)		
25-34	15,698 (49.9)		
35-44	7267 (23.1)		
45 and above	903 (2.9)		
Educational status of the respondents			
Less than secondary	21,194 (67.3)		
At least secondary	10,288 (32.7)		
Religion			
Christianity	12,654 (40.2)		
Islam	18,354 (58.3)		
Traditionalist	302 (1.0)		
Others	172 (0.6)		
Marital status			
Married/living with a partner	1492 (4.7)		
Not married/living with a partner	29,990 (95.3)		
Number of living children			
Less than/equal to 5	25,491 (81.0)		
>5	5991 (19.0)		
Place of residence			
Urban	10,351 (32.9)		
Rural	21,131 (67.1)		
Region			
North central	4614 (14.7)		
North east	6517 (20.7)		
North west	9906 (31.5)		
South east	2816 (8.9)		
South south	3747 (11.9)		
South west	3882 (12.3)		
Family wealth index			
Poor	14,462 (45.9)		
Middle/medium	6272 (19.9)		
Rich	10,748 (34.1)		
Respondent currently working			
No	9785 (31.1)		
Yes	21,697 (68.9)		
Husband's education			
Less than secondary	17,595 (57.0)		
At least secondary	13,283 (43.0)		
Earn less than the husband/partner			
No	2295 (11.8)		
Yes	17,156 (88.2)		
Covered by health insurance			
No	30,826 (98.3)		
Yes	536 (1.7)		
concerning her health care			
No	10,874 (36.3)		
Yes	19,117 (63.7)		
Frequency of reading newspaper or magazine			
Not at all	26,874 (85.87)		
Less than once a week	2506 (8.01)		
	Contd		

Table 1: Contd... Sociodemographic/obstetric characteristics of

Sociodemographic/obstetric characteristics of the respondents	Frequency (%)	
At least once a week	1917 (6.13)	
Frequency of listening to radio		
Not at all	12,944 (41.28)	
Less than once a week	7697 (24.54)	
At least once a week	10,718 (34.18)	
Frequency of watching television		
Not at all	17,060 (54.43)	
Less than once a week	5357 (17.09)	
At least once a week	8925 (28.48)	

Table 2: Current use of contraceptives among the respondents by method type

Frequency (%)
26,798 (85.12)
201 (0.64)
1437 (4.56)
3046 (9.68)
31,482 (100.00)

Table 3: Bivariate analysis for media influence on the current use of contraceptives among the women

Current contraceptive use			
o CI			
3.89			
4.88			
2.85			
4.20			
5.13			
7.47			

CI: Confidence interval, OR: Odds ratio

reading newspapers for at least once a week (adjusted OR [aOR] = 1.16; 95% CI = 1.03–1.32), listening to radio for at least once a week (aOR = 1.16; 95% CI = 1.01–1.32), and watching television for at least once a week (aOR = 1.39; 95% CI = 1.20–1.61) for less than once a week. There was an improvement in odds for contraceptive use with increase in the three media variables when media exposure increased to at least once a week [Table 4].

DISCUSSION

This study on the influence of mass media on the current use of contraceptives among Nigerian women found a

Table 4: Multivariable analysis for media influence on the current use of contraceptives among the women				
Media exposure variables and possible confounding variables	Curr	ent use of contraceptiv	es	
	Adjusted OR	Р	95% CI	
Frequency of reading newspapers				
Not at all (reference)				
Less than once a week	1.16	0.018	1.03-1.32	
At least once a week	1.53	< 0.001	1.33-1.76	
Frequency of listening to radio				
Not at all (reference)				
Less than once a week	1.16	0.035	1.01-1.32	
At least once a week	1.30	< 0.001	1.15-1.48	
Frequency of watching television				
Not at all (reference)				
Less than once a week	1.39	< 0.001	1.20-1.61	
At least once a week	1.25	0.002	1.08-1.43	
Age category				
15-24 (reference)				
25-34	1.32	< 0.001	1.16-1.51	
35-44	1.70	< 0.001	1.47-1.98	
45 and above	1.03	0.868	0.76-1.39	
Highest educational status				
Less than secondary (reference)				
Secondary and above	1.42	< 0.001	1.27-1.57	
Religion				
Catholic (reference)				
Other Christian denominations	081	0.002	0.70-0.92	
Islam	0.57	< 0.001	0.48-0.66	
Traditionalist	0.32	< 0.001	0.16-0.62	
Others	0.35	0.012	0.16-0.79	
Wealth index				
Poor				
Middle	1.67	< 0.001	1.43-1.95	
Rich	2.35	< 0.001	1.99-2.77	
Place of residence				
Urban (reference)				
Rural	0.72	< 0.001	0.66-0.79	
Region				
North west (reference)				
North central	3.70	< 0.001	3.10-4.43	
North east	1.40	0.003	1.12-1.75	
South east	3.97	< 0.001	3.24-4.90	
South south	3.61	< 0.001	2.94-4.43	
South west	4.97	< 0.001	4.14-5.97	
Currently working				
No (reference)				
Yes	0.96	0.775	0.72-1.28	
Frequency of reading newspapers	0.20	0.770	0.72 1.20	
Not at all (reference)				
Less than once a week	1.16	0.018	1 03-1 32	
At least once a week	1.53	<0.001	1 33-1 76	
Frequency of listening to radio	1.00	-0.001	1.55-1.70	
Not at all (reference)				
Less than once a week	1 16	0.035	1 01-1 32	
At least once a week	1 30	<0.000	1 15_1 /8	
Frequency of watching television	1.30	-0.001	1.1.5-1.70	

Not at all (reference)

Contd...

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Table 4: Contd					
Media exposure variables and possible confounding variables	Current use of contraceptives				
	Adjusted OR	Р	95% CI		
Less than once a week	1.39	< 0.001	1.20-1.61		
At least once a week	1.25	0.002	1.08-1.43		
2. No living	1.27	< 0.001	1.12-1.43		

CI: Confidence interval, OR: Odds ratio

significant positive influence of mass media on the current use of contraceptives, even after controlling for the possible confounding sociodemographic and economic variables. Women who were exposed to the three main media platforms for even less than once a week were more likely to be using contraceptive commodities than their counterparts who were not exposed at all.

This finding is in line with previous studies that demonstrated the important contribution of the media in improving the uptake of reproductive health services including family planning.^[7-14,17] There is therefore the need for reproductive health programs to explore this finding and further take advantage of the opportunity provided by the use of mass media for public sensitization on the need for family planning and the use of contraceptives.

It will be important to also use the opportunity to dispel the misconceptions about the use of contraceptives as studies have demonstrated that even in the face of good knowledge, the rates of misconceptions about and poor attitude to contraceptives are still high, limiting the use of these commodities.^[18-20]

It is important to target men in the sensitization program as traditionally most reproductive health programs focus on women as the sole target group for sensitization programs while paying little attention to men. This is in spite of the important role of men in reproductive health decision-making and behavior in the African society that is largely patriarchal in nature with male dominance. This is supported by studies that have shown that involvement of men in reproductive health programs improves uptake as well as continuity. For instance, in Uganda, women who were referred for colposcopy after a positive cervical cancer screening test in whom information about the screening findings and a request to assist their partner in attending the next examination was sent to the male partners were more likely to return for follow-up than their counterparts.^[21] Therefore, without the involvement and cooperation of men, it may be difficult for programs to achieve their set targets in reproductive health including the use of contraceptives.

From the analysis, most women used radio and television for health information as only a few of the women got health information from the newspapers and magazines. Therefore, radio and television platforms should form the major platform for reproductive health dissemination because of the likely greater reach. It is equally important to improve on the content and mode of delivery of reproductive health information utilizing innovative means to drive home the messages. It is of essence to deliver messages in manner that is socially and culturally acceptable to the people.

CONCLUSION

Mass media plays an important role in improving contraceptive use among Nigerian women. This finding provides a potential opportunity for improving contraceptive utilization in the country through an improved and sustained use of the mass media to disseminate family planning information.

The main limitation of this study is the use of 2013 data which are the latest Nigerian NDHS data available for analysis. Therefore, some of the key findings may have changed between then and now as a result of interventions.

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Conflicts of interest

There are no conflicts of interest.

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