

Multiple Exposure to Information about Family Planning and Contraceptive Use among Women in Nigeria

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Abstract—Exposure to the media advertising is known to help change attitudes and behavior of a targeted population. This study examined multiple exposures to Information about Family Planning and Contraceptive use among Women in Nigeria. The study used 2013 Nigeria Demographic Health Survey (NDHS) data set. Data analysis included Univariate, Bivariate, and Multivariate (binary logistic regression) techniques. Bivariate analysis findings showed that exposure to family planning information via radio, television, newspapers and told at health facility are significantly related to contraceptive use in Nigeria (p -value = 0.000). Also, Contraceptive use is significantly related to women characteristic such as age, marital status, residence, region, work status, religion, education and wealth index. (P -value = 0.000). Binary logistic regression showed that show that married women who heard FP information at health facility were 1.5 times as likely as those who did not, to report using contraception, and those exposed to multiple channels of family planning information were 2.5 times as likely as those who were not exposed to use contraceptive methods. Therefore policies that encourage more qualified health workers should be put in place so as to persuade women to use contraceptive. Also, NGO and family planning programmers should make use of multiple media channel for their campaign strategy in order to increase contraceptive use in Nigeria.

Keywords—Contraceptive use, Media, Family Planning and Multiple exposure

I. INTRODUCTION

Multiple exposure through the media play important role in educating couple on the benefits of small families and provide regular information on contraception and its use [9]. Until recently, the traditional media like television, radio and Newspaper have long been tools for promoting public health [9] [8]. Exposure to the media advertising is known to help change attitudes and behavior of a targeted population. Mass media is known to serve as a means of getting information across to the general public, and the extent it information could

reach cannot be over emphasized [6] [1] [10] [2]. The information gotten from popular soap opera in television and radio station explaining the benefits of having a small family size is indirectly changing people's attitude towards large family size and consideration of family planning [15] [4] [7]. Nigeria contraceptive prevalence rate is 15% (10% for modern method and 5% for natural method) and have 20% unmet needs for contraception [16]. Research has shown that low contraceptive prevalence experience low fertility while countries with low contraceptive use like Nigeria will experience high fertility [16]. Evidences abound that exposure to information on mass media has effects on changing people's attitude or behavior towards contraceptive use [15] [5]. Exposure to mass media makes firsthand information about contraceptive methods possible there by making women have adequate knowledge about various contraceptives methods, its benefits, side effects and correct the wrong perception about family planning in the population [13] [7].

This study examines the relationships between contraceptive use and media exposure to information about family planning among women in Nigeria. This is with a view to reducing fertility among sub-groups with the highest fertility rates in the country. The study considers background factors of respondents with a view to providing additional information that may help to increase use of contraceptive among this sub-group in the country. Studies in sub-Sahara Africa and Nigeria have explored the relationship between media exposure and their influence at the level of contraceptive use though these studies were not specific on the exposure to family planning messages [2]. A research conducted in Nigeria using mass media as a means of communication to the general public about family planning and using three cities reported rise in attendance of people seeking Family Planning (FP) [12].

Several agencies have been propagating family planning information and services in Nigeria using mass media. They include government agencies and non-governmental agencies such as Planned Parenthood federation of Nigeria (PPFN), Society for Family Health (SFH), Federal Ministry of Health (FMH), Women Advocates Research and Documentation Centre (WARDC) and so on [11]. Some of the programmes targeting Family Planning through mass media include “Flavour” in radio, “Story Story” in radio, “one thing at a time” in radio, “Wetin Dey” in television and the Widow in television [11]. Some of them are currently running in Nigeria. Therefore, this paper looks into impact of multiple exposures to media and contraceptive use in Nigeria.

II. BACKGROUND FACTORS AND EXPOSURE TO MEDIA INFORMATION

Literatures suggest linkages between socio-economic factors and exposure to family planning information [15] [7]. The socioeconomic status of an individual determines her state economically, being that a poor person may not have access to radio, or TV [15] [14]. Women with household possessions like radio or television reported higher percentage of exposure to mass media information than women who do not have in their homes [3].

Socio-demographic factors of exposure to media Information

Previous studies have shown that socio-demographic factors such as age, marital status, residence and number of living children influenced exposure to family planning message [15]. Some of the family planning programmes are produced in urban areas. Television and radio station, newspaper and some health centers are situated in the city and also durable goods like television radio and newspaper are been sold in the city [15]. In addition, number of living children is a factor that can influence exposure to mass media information. Women that have attained the desired number of children have the desire to seek information about how to limit their births [7].

III. DATA AND METHOD

The study used Nigerian Demography Health Survey (NDHS) dataset of 2013. Generally, the NDHS data were collated on women, maternal and child health, fertility and family planning among others [14]. In this study, only relevant variables in the 2013 data file were extracted and analyzed. Nigeria has six zones, and 36 states including Federal Capital Territory (FCT). In order to select a representative sample, Nigeria is divided into 36 states, with each state subdivided into 774 local government areas (LGAs), and each LGA is divided into localities and each locality was further divided into enumeration area. The survey adopted multistage sampling and focus on women between age group 15-49. The selection of sample was by stratified three-stage cluster design making a total of 904 clusters [14]. Each cluster has map and households listing (45 households per cluster). Total sample size is 38,948 women in their reproductive age of 15 to 49 were included in this study. Data analysis was done at the Univariate, Bivariate, and Multivariate levels.

The general model of the logistic regression equation used in the analysis is of the form

$$\text{Ln}\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k \quad (1)$$

Where X_1, X_2, \dots, X_k are set of independent variables such as age, residence etc., β_0 is a constant and β 's are regression coefficients. P is the probability of currently using Contraceptive.

IV. RESULTS

A. Respondents' Background Characteristics

Results in Table 1 show that 69% of women who participated in the study were in age group 15-19 years, were located in the rural areas (60%), and were either married or living with their spouse (70%) The majority of respondents were from the three northern regions (57%), while the 42% were from the three southern regions.

Statistics show that 25.2% of respondents are not in union, 70.0% are married and living with their husband while 4.8% were widowed, divorced or separated. About 35% of respondents had no education, 37.0% had secondary education, and 18.2% had primary education while 9.5% had higher education. The distribution of respondents by religious affiliation indicates that 41.8% practiced Islamic/Traditional religion, 10.6% belonged to the Catholic faith while 40.6% were in other religious category. The distribution of respondents by working status shows the majority (62%) were working. Also, percentage distribution shows that 21.5% of respondents were in the richest category, while 21.7%, 20.5%, and 30% were in the rich, middle, and poorer/poorest wealth categories respectively

Concerning respondent's exposure to family planning information, about a third (33%) heard FP from the radio, a fifth (20%) heard from TV, about 38% heard from health facility, and only 7% heard from the newspapers.

B. Multivariate Results

Contraceptive Use & Background Factors

This study examines the relationship between background factors such as age, residence, religion, education, working status and religion and contraceptive use. Results in Table 2 shows that the odds of contraceptive use among women increases with age. Women age 40 and above were five times (5.080) as likely as their counterparts in age group 15-19 to report use of contraceptive. The odds of contraceptive use for women in age groups 35-39, 30-34, 25-29, and 20-24 compared to the reference category were 4.3, 3.9, 2.9, and 3.0 respectively.

Contraceptive use & Media Exposure to Family Planning Information

Results in Table 2 show that married women who heard FP information at health facility were 1.5 times as likely as those who did not, to report using contraception, and those exposed to multiple channels of family planning information were 2.5 times as likely as those who were not exposed to use

contraceptive methods. And those who were exposed to one channel of FP information were 1.5 times as likely as those who were not exposed to use contraceptive method. Lastly, married women heard FP information from the radio were 0.7 times as likely as those who did not to use contraceptive method.

V. DISCUSSION AND CONCLUSION

This study examines the relationships between background characteristics of married women/those in stable relationship with exposure to FP information, and contraceptive use. The aim is to provide useful information on how to increase the impact of family planning information and thus, increase contraceptive use among the study population.

Results suggest that age, region, education, religion, socioeconomic status of women measured by wealth index are important background factors that should be considered in programs geared to increase contraceptive use among married women/those living with male partners in the country.

Findings show that exposure of the study population to FP information at health facilities is effective in changing their behavior to use contraceptive, and a more effective strategy is multiple exposure to FP information which has more than double odds of making women to use contraceptive methods in the country. Future programs need to consider these factors, to increase contraceptive use among Women.

An unexpected result of this study is the negative effect of radio on the use of contraceptive by this sub-group although evidence in the literature quite mixed on the influence of the media on contraceptive use [15]. It seems that the lack of specificity of the message typical of social marketing may have affected the results.

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TABLE 1: Background Characteristics of Respondents' Exposure

Variable	Frequency (N=38,948)	%	Variable	Frequency (N=38,948)	%
Age			Wealth Index		
15-19	7905	20.3	Poorest	6602	17.0
20-14	6714	17.2	Poorer	7515	19.3
25-24	7037	18.1	Middle	8001	20.5
25-29	5373	13.8	Richer	8450	21.7
30-34	4701	12.1	Richest	8380	21.5
40+	7218	18.5			
Residence			Heard FP from Radio		
Rural	23403	60.1	No	26160	67.2
Urban	15545	39.9	Yes	12758	32.8
Region			Heard FP from TV		
North Central	6251	16.0	No	31025	79.8
North East	6630	17.0	Yes	7870	20.2
North West	9673	24.8			
South East	4462	11.5			
South-South	6058	15.6			
South West	5874	15.1			
Educational Level			Read about FP in News-paper		
No Education	13740	35.3	No	36083	92.9
Primary	7104	18.2	Yes	2767	7.1
Secondary	14407	37.0			
Higher	3697	9.5			
Marital Status			Told about FP at health facility		
Never in Union	9820	25.2	No	5409	61.8
Married-living with partner	27274	70.0	Yes	3338	38.2
Not living with partner-widowed-divorced-separated	1854	4.8			
Religion			Multiple exposure to FP Information		
Islam-Trad	18930	48.8	None	24057	61.8
Catholic	4081	10.5	One	6709	17.2
Other Christian	15757	40.6	2 or more	8182	21.0
Currently working			Contraceptive use		
No	14733	38.0	Not using	32723	84.0
Yes	24006	62.0	Using	6225	16.0

Source: NDHS, 2013.

TABLE 2: Multivariate Analysis of Exposure to Mass Media and Contraceptive Use

Variable	Odds	Variable	Odds
Age		Religion	
15-19 (ref)	1.00	Islam-Trad (ref)	1.00
20-14	3.001***	Catholic	2.026***
25-24	2.867***	Other Christian	1.470***
25-29	3.917***	Wealth Index	
30-34	4.306***	Poorest (ref)	1.00
40+	5.080***	Poorer	1.103
Residence		Middle	1.533*
Rural (ref)	1.00	Richer	1.810**
Urban	0.961	Richest	2.547***
Region		Heard FP from Radio	
North Central (ref)	1.00	No (ref)	1.00
North East	0.612***	Yes	0.672
North West	0.793**	Heard FP from TV	
South East	0.891	No (ref)	1.00
South-South	1.044	Yes	0.928
South West	1.033	Read about FP in News-paper	
Educational Level		No (ref)	1.00
No Education (ref)	1.00	Yes	1.004
Primary	2.231***	Told about FP at health facility	
Secondary	2.327***	No (ref)	1.00
Higher	2.318***	Yes	1.473***
Marital Status		Multiple exposure to FP Information	
Never in Union (ref)	1.00	One	1.535***
Married-living with partner	0.549***	2 or more	2.511***
Widowed-divorced-separated	0.375***		
Currently working			
No (ref)	1.00		
Yes	1.087		
Chi square	2100.102		
Nagelkerke	0.196		
-2log Likelihood	8320.615		

Source: NDHS, 2013.