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Impact of Parity of Women on their Uptake of Family Planning in Rural and Urban Areas of FCT, Nigeria

Ogundana Adejoke Esther[1*], Adetunji Adetumi Subulade[2]
[1]*Department of Public Health, Central University of Nicaragua, Nicaragua*
[2]*Department of Community Health, Federal Medical Center, Owo, Ondo State, Nigeria*

Abstract

There is a need for an improvement in the uptake of family planning by women of childbearing age due to the high number of births observed in Nigeria. There are several factors that play an important role in the use of family planning, and among the factors is the number of children delivered by a woman. This cross-sectional study was conducted among 480 women of childbearing age in two different settings (rural and urban), the association between the number of children by these women and the women's attitude and uptake of family planning was studied. At p-value <0.05, a statistical significance was observed in the association between the number of children and the women's attitude in the rural setting with X^2=43.661, p = 0.02, and among the women in the urban setting with X^2 = 44.189, p = 0.02. A statistical significance was observed for their uptake of family planning in the rural setting only with X^2 = 10.343, p = 0.32, while no significance was observed for their uptake of family planning in the urban setting. This study showed that most women who have delivered one child or more have a good attitude toward the uptake of family planning. It showed that women's attitudes and uptake of family planning could be influenced by the number of children they already have or the family size. Family planning program strategies and family planning messages targeting women who have large family sizes should be created.

Keywords*: Family planning, Rural, Urban, Uptake, Women of childbearing age.*

Introduction

Family planning refers to a woman's ability to choose when she becomes pregnant and continues that pregnancy to term [1]. Family planning also has significant effects on maternal health [1]. Globally, 44% of maternal deaths were prevented using contraceptives [1]. Contraceptive use is very effective in preventing high-risk and high-parity births. Contraceptive use prevents unwanted pregnancies and reduces the need for unsafe abortion. According to WHO, the prevention of unintended pregnancies helps to lower maternal ill-health and the number of pregnancy-related deaths.

Contraceptive use in Nigeria was reported to be 17% in 2018, according to the 2018 Nigeria Demographic and Health Survey. With Nigeria's population of more than 200 million, a total fertility rate of 5.3%, and a growth rate of 2.5% in 2020, a lot still must be done to improve the use of contraceptives in the country as the contraceptive use is very low [2]. The maternal Mortality Ratio (MMR) was 576/100,000 live births which account for 10% of global maternal deaths, and Infant Mortality Ratio was 47/1000 live births [2]. Nigeria has been noted for high-risk pregnancies, high-risk births (nearly two-thirds of births fall into this category), and high-risk fertility behaviors [3]. According to the national planning communication plan, high-risk fertility behaviors are classified as: too young before 18 years of age, too old after 35years of age, too7 close together less than 24 months apart, too many birth orders, 4 and above [3].

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****Corresponding Author: jbuddy09@gmail.com***

As part of the Family Planning 2020 commitment, Nigeria has set a goal to increase the modern contraceptive prevalence rate (mCPR) to 27% of all women though it is still falling short at 12% [4].

Nigeria had not achieved a remarkable increase in the utilization of family planning methods despite the fact that low contraceptive use is associated with high rates of unwanted pregnancies, abortions, maternal and perinatal morbidity, and mortality. Even though evidence revealed a high level of awareness and knowledge of modern contraceptive methods, its use prevalence in Nigeria has remained low [3,5]. Studies conducted in different countries have found that most women know the methods of family planning but have lack of practice. This is because individuals are in a negative and prejudiced attitude toward modern methods. It is known that positive or negative attitude affects the use of family planning method. It is considered important to examine the current attitudes and determinants to spread the choice of the effective method [6].

The use of family planning among women can be influenced by various factors such as education, religion, level of awareness, type of marriage, and the number of children the women. Several studies have been conducted looking into how these factors affect the use of family planning among women of reproductive age in Nigeria, although very few of these studies research the uptake of family planning in the Federal Capital Territory (FCT). FCT is a federal territory in central Nigeria. Abuja, the capital city of Nigeria, also one of the largest cities in West Africa is in this territory [7].

This cross-sectional study was conducted in FCT with the aim of assessing the association between the number of children a woman has and her attitude to the uptake of family planning using the rural and urban settings, with a view to make suitable recommendations that will improve the uptake of family planning.

Materials and Methods

Study Area

This study was conducted in the Federal Capital Territory, commonly known as FCT, or loosely as FCT-Abuja, is a federal territory in central Nigeria. It comprises six area councils (which can also be referred to as local government areas), namely Abuja Municipal Area Council (AMAC), Bwari Area Council, Kuje Area Council, Gwagwalada Area Council, Kwali Area Council, and Abaji Area Council. Only two area councils were included in this study, namely Abuja Municipal Area Council (AMAC) and Bwari Area Council. AMAC was the urban setting in this study, while Bwari was the rural setting. The estimated population of FCT is 1,406,239 as at 2006 and an estimated population of 2,238,800 in 2011 [8].

Study Design and Study Population

This was an analytical cross-sectional study conducted among women of reproductive age, age range between <19yrs and above 35yrs, who have had children before the introduction of this study.

Sample Size Calculation

To determine the sample size, the Cochran formula, which is appropriate for large populations, was used.

$$n_0 = \frac{Z^2pq}{e^2}$$

Where:

n_0 is the required sample size.

e is the accepted sampling error = 5% with a confidence level of 95%.

p is the contraceptive use prevalence in Nigeria = 17% (DHS 2018).

Z is the z - value (at 95% confidence interval) = 1.96.

q is 1 – p.

Applying the formula, the sample size was calculated as shown below:

$$n_0 = \frac{1.96^2 * 0.17\ (1 - 0.17)}{0.05^2}$$

$n_0 = 216.8$

$n_0 = 216.8$

A 10% non-response rate was included, which made the sample size to be 238. This was approximated to 240 sample size. The sample size was used for each setting, i.e., 240 sample size in urban and 240 sample size in rural, making a total of 480 sample size for the two settings.

Sampling Technique

In selecting the respondents, a multistage sampling technique was applied. In the first stage, two area councils were randomly selected by balloting out of the six area councils in FCT. The second stage involved the random selection of five wards in each of the selected area councils to make 10 wards. In the third stage, 50 households were systematically selected in each of the selected wards to make 500 households. The sampling interval was obtained by dividing the number of households in the selected wards by 50. In the fourth stage, eligible respondents in the selected households were interviewed.

Instrument and Data Gathering

A structured questionnaire was used as a tool for data collection in this study. The questionnaire was constructed using closed-ended questions that focused on assessing the use of contraceptives among the women, their attitude to its use, and their number of children. The questionnaire was structured to be self-administered and also to be administered through a facilitator or an interviewer. Research volunteers were recruited and trained on the questions and to administer the questionnaires, ensuring consistency while avoiding ambiguity. The questionnaires were administered in the evenings when most families had returned home from work.

Data Analysis

The questionnaires were checked for errors before entry into the computer for analysis. The data were analyzed using Statistical Package for Social Sciences (SPSS) version 26. Frequency tables were generated, and Chi-square analysis was also done to test the association between the categorical variables; this was done for the variables on the attitude of respondents to the uptake of family planning, their uptake of family planning, and the number of children by the women, this was done for the rural and urban settings. The test for significance was done, and the P-value was set at <0.05.

Results

In this study, 480 respondents were recruited, and all responses were received. Among the respondents, the age range of <19 years has the least number of respondents from the rural settings, 25 (5.2%) of the total respondents, while the highest number of respondents are within the age range of 25 – 30 years with 147 respondents 30.6% of the total respondents. There were more respondents in the rural setting with no education, 24 (5%) than in the urban setting, 15 (3.1%). At the same time, the urban community has the highest number of educated respondents, 81 (16.8%) with secondary level education.

Table 1. Socio-demographic Characteristics of Respondents

Variable	**Rural (n=237)**	**Urban (n=244)**	**Total (n=481)**	**X^2**	**df**	**p-value**
	Freq. (%)	**Freq. (%)**	**Freq. (%)**			
Age						
<19yrs	15 (3.1)	10 (2.1)	25 (5.2)	5.112	4	0.276
19-25yrs	28 (5.8)	53 (11)	81 (16.8)			
25-30yrs	72 (15)	75 (15.6)	147 (30.6)			

30-35yrs	62 (12.9)	62 (12.9)	124 (25.8)			
35yrs and above	60 (12.5)	44 (9.1)	44 (9.1)			
Education						
No Education	24 (5)	15 (3.1)	39 (8.1)	9.407	4	0.05
Primary	39 (8.1)	51 (10.6)	90 (18.7)			
Secondary	78 (16.2)	81 (16.8)	159 (33.1)			
Tertiary	60 (12.5)	72 (15.0)	132 (27.4)			
Postgraduate	36 (7.5)	25 (5.2)	61 (12.7)			
Occupation						
Trading	50 (10.4)	73 (15.2)	123 (25.6)	26.37	5	-
Public Servant	64 (13.3)	55 (11.4)	119 (24.7)			
Self Employed	57 (11.9)	71 (14.8)	128 (26.6)			
Private Employment	35 (7.3)	25 (5.2)	60 (12.5)			
Housewife	18 (3.7)	10 (2.1)	28 (5.8)			
Not Employed	13 (2.7)	10 (2.1)	23 (4.8)			
Ethnicity						
Hausa	39 (8.1)	57 (11.9)	96 (20)	9.647	3	-
Yoruba	77 (16.0)	57 (11.9)	134 (27.9)			
Ibo	74 (15.4)	53 (11.0)	53 (11.0)			
Others	47 (9.8)	77 (16.0)	124 (25.8)			
Religion						
Christianity	185 (38.5)	162 (33.7)	347 (72.1)	-	-	-
Islam	52 (10.8)	81 (16.8)	133 (27.7)			
Type of Marriage						
Monogamous	199 (51.2)	190 (49.0)	389 (80.9)	7.327	1	0.007*
Polygamous	38 (7.9)	54 (11.2)	92 (19.1)			
No of Children						
0	-	1 (0.2)	1 (0.2)	21.967	9	0.009*
1	45 (9.4)	29 (6.0)	74 (15.4)			
2	57 (11.9)	64 (13.3)	121 (25.2)			
3	64 (13.3)	72 (15.0)	136 (28.3)			
4	36 (7.5)	49 (10.2)	85 (17.7)			
5	14 (2.9)	20 (4.2)	34 (7.1)			
6	6 (1.2)	3 (0.6)	9 (1.9)			
7	5 (1.0)	2 (0.4)	7 (1.5)			
8	1 (0.2)	1 (0.2)	2 (0.4)			
9	1 (0.2)	1 (0.2)	2 (0.4)			

*Statistical significance at p-value <0.05

Table 2 shows an overall picture of the association between the number of children by all the respondents pulled together and their attitude to the uptake of family planning.

Table 2. Attitude of all Respondents to Uptake of Family Planning

Number of children (%)	Number of respondents with good attitude to the uptake of family planning methods (%)	Number of respondents with poor attitude to the uptake of family planning methods (%)	Total Respondents (%)	X^2	p-value
0	1	0	1 (0.2)	54.148	0.001*
1	70 (96.0)	4 (5.4)	74 (15.4)	-	-
2	109 (90.0)	11 (9.1)	121 (25.2)	-	-
3	114 (84.0)	22 (16.2)	136 (28.3)	-	-
4	70 (82.4)	15 (17.6)	85 (17.7)	-	-
5	27 (79.4)	7 (21.0)	34 (7.1)	-	-
6	7 (78.0)	2 (22.2)	9 (1.9)	-	-
7	5 (71.4)	2 (29.0)	7 (1.5)	-	-
8	1 (50.0)	1 (50.0)	2 (0.4)	-	-
9	2	0	2 (0.4)	-	-

*Statistical significance at p-value <0.05

Table 3 shows the breakdown of the association between the number of children by the respondents and the attitude of the respondents to the uptake of family planning in rural and urban settings.

Table 3. Attitude of Respondents in Rural and Urban Settings to the Uptake of Family Planning

No of children (%)	Rural setting		X^2 / p-value	Urban setting		X^2	p-value
	Respondents with good attitude (%)	Respondents with poor attitude (%)		Respondents with good attitude (%)	Respondents with poor attitude (%)		
0	4 (2.0)	0		3 (1.4)	0	44.189	0.020*
1	41 (20.7)	4 (26.7)	43.661	29 (13.6)	0	-	-
2	48 (24.2)	9 (33.3)		61 (28.5)	3 (16.7)	-	-
3	53 (26.8)	11 (37.5)	0.022*	61 (28.5)	11 (44.4)	-	-
4	29 (14.6)	7 (33.3)		41 (19.2)	8 (62.5)	-	-
5	13 (6.6)	1 (6.7)		14 (6.5)	6 (25.0)	-	-
6	5 (2.5)	1 (8.3)		2 (0.9)	1 (12.5)	-	-
7	4 (2.0)	1 (6.7)		1 (0.5)	1 (5.6)	-	-
8	1 (12.5)	0		1 (0.5)	0	-	-
9	1 (0.5)	0		1 (0.5)	0	-	-

*Statistical Significance at p-value <0.05

This Table 4 shows the overall uptake of family planning among all the respondents in both the rural and urban settings pulled together

Table 5 shows a breakdown of the uptake of family planning among the respondents in rural and urban settings.

Table 4. Total Uptake of Family Planning among all the Respondents

Number of children (%)	Number of Respondents with good uptake of family planning methods (%)	Number of Respondents with poor uptake of family planning methods (%)	Total Respondents (%)	X^2	p-value
0	0	1	1 (0.2)	21.967	0.009*
1	39 (52.7)	35 (47.3)	74 (15.7)	-	-
2	89 (74.0)	32 (26.4)	121 (25.2)	-	-
3	89 (65.4)	47 (36.0)	136 (28.3)	-	-
4	52 (61.2)	33 (39.0)	85 (17.7)	-	-
5	26 (76.4)	8 (24.0)	34 (7.1)	-	-
6	6 (67.0)	3 (33.3)	9 (1.9)	-	-
7	3 (43.0)	4 (57.1)	7 (1.5)	-	-
8	0	2	2 (0.4)	-	-
9	0	2	2 (0.4)	-	-

*Statistical significance at p-value <0.05

Table 5. Breakdown of Uptake of Family Planning among the Respondents in the Rural and Urban Settings

No of children (%)	Rural setting			Urban setting			
	Respondents with good uptake (%)	Respondents with poor uptake (%)	X^2 / p-value	Respondents with good uptake (%)	Respondents with poor uptake (%)	X^2	p-value
0	2 (1.5)	2 (2.1)		1 (0.6)	2 (2.7)	20.516	0.015*
1	24 (17.5)	21 (21.9)	10.343	15 (8.8)	14 (18.9)	-	-
2	38 (27.7)	19 (19.8)		51 (30.0)	13 (17.6)	-	-
3	34 (24.8)	30 (31.3)	0.323	55 (32.4)	17 (23.0)	-	-
4	20 (14.6)	16 (16.7)		32 (18.8)	17 (23.0)	-	-
5	12 (8.8)	2 (2.1)		14 (8.2)	6 (8.1)	-	-
6	4 (2.9)	2 (2.1)		2 (1.2)	1 (1.4)	-	-
7	3 (2.2)	2 (2.1)		0	2 (2.7)	-	-
8	0	1 (1.0)		0	1 (1.4)	-	-
9	0	1 (1.0)		0	1 (1.4)	-	-

*Statistical significance at p-value <0.05

Discussion

The aim of this study was to assess the impact of the number of children by the respondents on their attitude and uptake of family planning in rural and urban settings.

A total of 480 women of reproductive age who had children before the introduction of this study participated as respondents in this study. Most of the respondents are married. 80% are in monogamous marriages while 19% are in a polygamous marriage. The age range considered in this study was between <19yrs and 35yrs and above. In this research work, it was observed that 70% of married women in urban communities use family planning, while 62% of married in rural community use family planning. This is like the study conducted by [6], in the study was

recorded that more of married women in urban settings use family planning compared to married women who use family planning in the rural setting. [22] also recorded similar observations in research work; he reported that women residing in urban areas were significantly more likely to use family planning compared to women who reside in rural areas. [2, 7, 17] also reported in their research work a significant association between family planning use and place of residence.

The type of marriage most common among the respondents is monogamy 389, 81%, followed by polygamy 92, 19%. There was a statistical significance in the association between the respondents' type of marriage and their uptake of family planning (X^2 = 7.327, P = 0.007), [4] also confirmed this in his study that contraceptive use would be lower among polygamous women because of the competition among them for having more children which will in return give them more control in the household. This is also in agreement with the findings in the study conducted by [5] in Malawi, which recorded that contraceptive use is much lower in polygamous marriage than in monogamous marriage.

This study also showed that women's attitude to the uptake of family planning could be influenced by the number of children they already have or the number of children in the family. It was observed that most women who have had one child or more have a good attitude to the uptake of family planning. A good attitude of above 80% was observed among the respondents who had between one to four children. Some previous studies have also proven significant variations in the uptake of family planning among women with the different numbers of children [18], [19]. Contraceptive use was found to be highly related to family size, it was also proven that households with up to or more than 4 family members have a better attitude to the uptake of family planning and a higher tendency to use family planning methods [10], [3], [5].

The number of children born to a family in the last five years and the total number of children ever died in the family influences the uptake of family planning by women within the age range 15 – 49 [10]. Significant variations in the uptake of family planning were also found across women with the different number of children in some studies. It was observed that women whose child died before and had one or two living children have a great tendency for family planning use [18], [12], [11], [10].

Conclusion

This study showed that women's attitude to the uptake of family planning and their actual uptake of family planning can be influenced by the number of children they already have or the number of children in the family. It also showed that the attitude of women to the uptake of family planning does not actually translate to their uptake of family planning. Their attitude and their uptake do vary.

This study is an eye opener to how much family size can influence a woman's attitude and the uptake of family planning. Therefore, it is very important to create specific family planning program strategies, family planning messages, and health education targeting women who have a larger family size. Also, more research work should be done to identify more factors that affect the uptake of family planning in FCT, Nigeria.

Conflict of Interest

I hereby declare that there is no conflict of interest as regards this research work.

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