

Knowledge, Attitude and Uptake of Family Planning among Adolescent Girls in Rural and Urban Areas of FCT, Nigeria

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Abstract

Among female adolescents, maternal deaths due to unsafe abortion and childbirth complications is a leading cause of death. Contraceptive use prevents unwanted pregnancies and reduces the need for unsafe abortion. This cross-sectional study was conducted among 174 adolescent girls, ages 15 – 19yrs, in two different settings (rural and urban). The knowledge of the adolescents on family planning, their attitude to the uptake of family planning and the actual uptake of family planning among them were assessed. A high knowledge level of 77% was observed among the respondents in rural settings and 92% among the respondents in urban settings. The respondents' attitude was also found to be high, 78% in the rural setting and 84% in urban setting, this was linked to the high knowledge of family planning among the respondents. A low uptake level of 47% was observed among the respondents in rural setting and 67% among respondents in urban setting. The respondents' overall uptake of family planning was observed to be 58% which is low and not commensurate with the high knowledge of family planning observed among the respondents. Therefore, to improve the uptake of family planning among the adolescents, it is important to create messages that will target their partners, parents, religious institutions, and the society to support contraceptives for adolescents. There should be youth friendly clinics that provide family planning services to adolescents in the communities, they require a comfortable environment where they could access family planning services without fear of prejudice.

Keywords: Adolescents, Family planning, Rural, Urban.

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 contraceptive [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. Adolescence is a critical period of development

for young people which usually is marked by many psychological, social and physical changes. Among female adolescents, maternal deaths due to unsafe abortion and childbirth complications such as maternal hemorrhage is a leading cause of death resulting in about 25,000 deaths yearly. Due to immature body physiology, childbirth complications are more prominent among adolescents [2].

In Nigeria, there are various cultural / traditional factors that promote sexual exploitation of the adolescent girl child most especially cultural factors that permits a girl child to be given out in marriage as soon as she starts menstruation, some other cultures forbid a

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girl child from starting menstruation in her father's house. For some of the young girls from these cultural environment, the only way to escape early or forced marriage would be to run away from home which would in turn make them vulnerable to sexual abuse in the community. Most adolescents experience sexual violence, social pressures, early marriage and forced marriage [2]. Most of these adolescents end up getting married early, and most of them are not exposed to the use of contraceptive due to poor education and information on the availability and importance of family planning. Some have poor attitude to accessing healthcare in health facilities due to shame of being pregnant early [3]. According to Nigeria Demographic and Health Survey [4], 23% of adolescents aged 15 - 19years have already begun childbearing and about 32% of women 20 -49 have had a birth at the age of 18years.

WHO reported that an average of three million unsafe abortions occurs worldwide every year among 15 – 19-year-old female adolescents [5], this approximately cause one maternal death in every 500 cases [6]. Since majority of the pregnancies are unintended, most pregnant adolescents' resort to abortion. Nigeria Demographic and Health Survey 2013 reported the use of contraceptive among married young women aged 15 – 19years as 2%. While the overall contraceptive use among women in Nigeria is reported as 16%, among young women of age 15 – 19years (married and unmarried) it is reported as 6%, among women aged 35 – 39years it is 21% and among women age 45 – 49years it is 12% [4]. Contraceptive use was also found to be higher in the urban settings than in the rural areas, in the urban it was found to be 27% and 9% in rural areas [4].

Several studies have been conducted looking into contraceptive use among adolescents in the Northern and Southern region of Nigeria but very few have been conducted in the Federal Capital Territory (FCT). This cross-sectional study was conducted in FCT to answer the question; what is the level of uptake of family

planning among the adolescents in FCT and how can it be improved?

This study also has the aim of assessing the knowledge, attitude, and uptake of family planning among adolescent girls aged 15 – 19yrs in the rural and urban areas of FCT.

Materials and Methods

Study Area

This study was conducted in communities in the Federal Capital Territory, commonly known as FCT, or loosely as FCT-Abuja, is a federal territory in central Nigeria. It comprises of 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 [7].

Study Design and Study Population

This was an analytical cross-sectional study conducted among adolescent girls in communities in the Federal Capital Territory. In-school and out-of-school adolescent girls participated as respondents in this study.

Sample Size Calculation

To determine the sample size, the Cochran formula [21] below was used.

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

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% [8].

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

q is 1 – p.

Applying the formula, the sample size n_0 was calculated as shown below:

$$n_0 = \frac{1.96^2 0.06(1 - 0.06)}{0.05^2}$$

$n_0 = 87$.

To cover the rural and urban areas for this study, the sample size 87 was doubled making a total of 174 sample size for the two communities.

Sampling Technique

In selecting the respondents, a multistage sampling technique was applied. In the first stage, two area councils were selected using simple random sampling technique by balloting out of the six area councils in FCT. The second stage also involved using simple random sampling technique by balloting and 2 wards were selected in each of the previously selected area councils to make 4 wards. In the third stage, simple random sampling technique by balloting was also used by which 2 communities were selected in each of the 4 wards, making 8 communities that were covered during this study. 4 of these communities were rural communities and the other 4 were urban communities. In the fourth stage, eligible respondents in the selected communities were interviewed.

Instrument and Data Gathering

A structured questionnaire was used as 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 adolescents, their knowledge and attitude to its use. The questionnaire was structured to be self-

administered, also to be administered through an interviewer. Research volunteers were recruited and trained on the questions and to administer the questionnaires ensuring consistency while avoiding ambiguity.

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, Chi-square analysis was done to test the association between the categorical variables [22]; this was done for the variables on knowledge of respondents on family planning, attitude of respondents to the uptake of family planning, their actual uptake of family planning, this was done for the rural and urban areas. The test for significance was done and the P-value was set at <0.05.

Results

In this study 174 respondents were recruited, and all responses were received.

Table 1 shows the demographic characteristics of the respondents. Among these, the association between the respondents' education and the use of family planning was found to be statistically significant at p-value <0.05 ($X^2 = 10.004$, $p = 0.04$). 36 respondents (21%) out of 174 respondents had no formal education in both rural and urban settings, 29% (51) had Primary level education while 50% (87) had secondary level education. Most of the respondents 74% (129) were 19yrs while 15 - 18yrs were 45 (26%). The only two religion recorded in this study were Christianity and Islam in both settings. It was observed that most of the respondents 101 (58%) were Christians and 71 (41%) were Muslims. The respondents' ethnicity as observed in this study were Hausa, Yoruba, Ibo, and others which includes Gbagyi, Fulani, Urobo, Idoma and Igede.

Table 1. Socio-demographic Characteristics of Respondents

Variable	Rural (n=78)	Urban (n=96)	Total (n=174)	X ²	df	p-value
	Freq. (%)	Freq. (%)	Freq. (%)			
Age						
15–18yrs	27 (34.6)	18 (18.8)	45 (25.9)	0.047	1	0.83
19 yrs	51 (65.4)	78 (81.3)	129 (74.1)	-	-	-
Education						
No Education	14 (18.0)	22 (22.9)	36 (20.7)	10.004	4	0.04*
Primary	22 (28.2)	29 (30.2)	51 (29.3)	-	-	-
Secondary	42 (53.9)	45 (46.9)	87 (50.0)	-	-	-
Ethnicity						
Hausa	16 (20.5)	28 (29.2)	44 (25.3)	0.087	3	0.99
Yoruba	24 (30.8)	22 (22.9)	46 (26.4)	-	-	-
Ibo	23 (29.5)	19 (19.8)	42 (24.1)	-	-	-
Others	15 (19.2)	27 (28.1)	42 (24.1)	-	-	-
Religion						
Christianity	52 (66.7)	49 (51.0)	101 (58.0)	2.968	2	0.23
Islam	26 (33.3)	45 (46.9)	71 (40.8)	-	-	-

*Statistical significance at p-value <0.05

Table 2 shows the knowledge of family planning among the respondents in the rural and urban settings. Among the 95 respondents in the rural area, 77% (60) had heard about family planning while 23% (18) knows nothing about family planning. In the urban area, out of 96 respondents 92% (88) had knowledge about family planning and 8% (8) did not have any knowledge about family planning.

The association between respondents' education and the knowledge of family planning was observed to be statistically significant in the rural setting but the association as observed in urban setting was not statistically significant. Table 3 shows the attitude of respondents in rural

and urban setting to the uptake of family planning. In this study it was observed that 61 respondents had a good attitude to the uptake of family planning while 10 respondents had a bad attitude to the uptake of family planning in the rural setting. In urban setting, 81 respondents had a good attitude to the uptake of family planning while 4 had a bad attitude to the uptake of family planning. The association between the respondents' attitude to uptake of family planning and the respondents' education was observed to be statistically significant for the rural setting ($X^2 = 37.779$, $p = <0.001$) and for the urban setting ($X^2 = 31.665$, $p = 0.002$).

Table 2. Knowledge of Respondents in Rural and Urban Settings on Family Planning

Variables	Rural setting		X ² / p-value	Urban setting		X ²	p-value
	Respondents with knowledge of family planning (%)	Respondents without knowledge of family planning (%)		Respondents with knowledge of family planning (%)	Respondents without knowledge of family planning (%)		
Age							
15 – 18yrs	22 (28.2)	5 (6.4)	2.447 / 0.29	17 (17.7)	1 (1.0)	0.224	0.64
19yrs	38 (48.8)	13 (16.6)		71 (74.0)	7 (7.3)		
Education							
No Education	9 (11.5)	5 (6.4)	43.669 / <0.001*	20 (20.8)	2 (2.1)	6.376	0.17
Primary Level	15 (19.2)	7 (9.0)		24 (25.0)	5 (5.2)		
Secondary Level	36 (46.2)	6 (7.7)		44 (45.9)	1 (1.0)		
Ethnicity							
Hausa	10 (12.8)	6 (7.6)	8.819 / 0.18	24 (25.0)	4 (4.2)	3.449	0.33
Yoruba	19 (24.4)	5 (6.4)		22 (22.9)	0		
Ibo	16 (20.5)	7 (9.0)		17 (17.7)	2 (2.1)		
Others	15 (19.2)	0		25 (26.0)	2 (2.1)		
Religion							
Christianity	42 (53.8)	10 (12.9)	3.300 / 0.19	45 (44.7)	4 (4.2)	0.202	0.90
Islam	18 (23.1)	8 (10.2)		41 (42.7)	4 (4.2)		

*Statistical significance at p-value <0.05

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

Variables	Rural setting		X ² / p-value	Urban setting		X ²	p-value
	Respondents with good attitude to the uptake of family planning (%)	Respondents with poor attitude to the uptake of family planning (%)		Respondents with good attitude to the uptake of family planning (%)	Respondents with poor attitude to the uptake of family planning (%)		
Age							
15 – 18yrs	22 (28.2)	5 (6.4)	5.334 / 0.15	15 (15.6)	1 (1.0)	5.031	0.17
19yrs	39 (50.0)	5 (6.4)		66 (68.8)	3 (3.1)		
Education							
No Education	10 (12.8)	4 (5.2)	37.779 / <0.001*	18 (18.7)	4 (4.2)	31.665	0.002*
Primary Level	17 (21.8)	5 (6.4)		20 (20.8)	9 (9.3)		
Secondary Level	34 (43.6)	8 (10.2)		43 (44.8)	2 (2.1)		
Ethnicity							
Hausa	10 (12.8)	3 (3.9)	15.295 / 0.08	21 (21.9)	3 (3.1)	17.116	0.05
Yoruba	23 (29.5)	1 (1.3)		22 (22.9)	0		
Ibo	17 (21.8)	4 (5.1)		19 (19.8)	0		
Others	11 (14.1)	2 (2.6)		19 (19.8)	1 (1.0)		
Religion							
Christianity	45 (57.7)	5 (6.4)	7.742 / 0.05	45 (46.9)	0	6.682	0.35
Islam	16 (20.5)	5 (6.4)		34 (35.4)	4 (4.1)		

*Statistical significance at p-value <0.05

Table 4 reveals the uptake of family planning among the respondents in both rural and urban settings. In the rural setting out of 78 respondents, 37 (47%) had a good uptake of family planning and 41 (53%) had a poor uptake of family planning. In urban setting out of 96 respondents, 64 (67%) had a good uptake of family planning and 32 (33%) had poor uptake of family planning. It was observed that the

association between the respondents' education and the respondents' uptake of family planning was statistically significant in the rural setting ($X^2 = 10.933$, $p = <0.03$). A statistical significance was also observed in the association between the respondents' ethnicity and the respondents' uptake of family planning in the urban setting ($X^2 = 10.458$, $p = 0.02$).

Table 4. Uptake of Family Planning among Respondents in Rural and Urban Settings

Variables	Rural setting		X^2 / p-value	Urban setting		X^2	p-value
	Have you ever used FP before?			Have you ever used FP before?			
	Yes (%)	No (%)		Yes (%)	No (%)		
Age							
15 – 18yrs	15 (19.2)	12 (15.4)	1.092 / 0.30	10 (10.4)	8 (8.3)	1.231	0.27
19yrs	22 (28.2)	29 (37.2)		54 (56.3)	24 (25.0)		
Education							
No Education	9 (26.9)	5 (6.4)	10.933 / <0.03*	15 (15.6)	7 (7.3)	3.674	0.45
Primary Level	13 (16.7)	9 (11.5)		18 (18.8)	11 (11.5)		
Secondary Level	15 (19.3)	27 (34.6)		31 (32.3)	14 (14.5)		
Ethnicity							
Hausa	12 (15.4)	4 (5.1)	6.938 / 0.07	13 (13.5)	15 (15.6)	10.458	0.02*
Yoruba	8 (10.3)	16 (20.5)		19 (19.8)	3 (3.1)		
Ibo	10 (12.8)	13 (16.7)		15 (15.6)	4 (4.2)		
Others	7 (9.0)	8 (10.3)		17 (17.7)	10 (10.4)		
Religion							
Christianity	23 (29.5)	29 (37.2)	0.643 / 0.42	35 (36.5)	14 (14.6)	4.600	0.10
Islam	14 (17.9)	12 (15.4)		29 (30.2)	16 (16.7)		

*Statistical significance at p-value <0.05

Discussion

This study was conducted to assess the knowledge, attitude, and uptake of family planning among adolescent girls ages 15 – 19yrs in the rural and urban areas of FCT.

A total of 174 adolescent girls ages 15 – 19yrs, consisting of in and out of schoolgirls participated in this study as respondents. Out of the total respondents, 129 (74%) were 19yrs and 45 (26%) of the total respondents were 15 – 18yrs. 36 (21%) of the respondents had no formal education, 51 (29%) had primary level education and 87 (50%) had secondary level

education. It was also observed that the most popular source of information on family planning among the respondents was radio followed by peer-to-peer information. This is like the discovery made in a study conducted among adolescents in secondary schools in Tanzania [9].

In this study, it was observed that the knowledge of family planning among the respondents was high, 77% among respondents in rural areas and 92% among respondents in urban areas. Increasing awareness of the importance of sex education and family planning in the society as promoted by social media and

the government could be responsible for this. This is in agreement with the studies conducted in Nigeria where the knowledge of contraceptive was found to be 98.4% among female participants in a tertiary institution [10] and the study conducted among teenage schoolgirls where the knowledge of contraceptive was observed to be over 70% [11]. [9] in their study conducted among adolescents in secondary schools in Northern Tanzania also observed that more than two-third of the students had adequate level of knowledge on family planning. [12] in the study conducted among Nigerian undergraduates observed that majority of the participants (87.5%) were knowledgeable about contraception and its use, although only 34.2% were observed to be current users of contraceptives [12]. In similar study conducted among college students in India, [13] reported that 86% of the students had knowledge of contraception.

This study also observed that respondents with secondary level of education were the most knowledgeable about family planning in the rural and urban areas, followed by respondents with primary level of education. This was also in synchronization with the observation made by [9] in their study stating that being in a lower class is an important predictor for inadequate knowledge of family planning among adolescents in secondary schools. In this study, the attitude of respondents to the uptake of family planning was observed to be high in the rural area (78%) and urban area (84%). This can be said to be a result of the high level of knowledge about family planning observed among the respondents. It was also observed that respondents with secondary level education in both areas had better attitude to the uptake of family planning, followed by respondents with primary level education. This had the same pattern with the knowledge of family planning among the respondents. This can further be explained by the statistical significance observed in the association between the respondents' education and their attitude to the uptake of

family planning in the rural area and the urban area as well.

In this study, a lower uptake of family planning was observed among respondents in the rural area, 47% had used family planning before meanwhile a higher uptake was observed in urban area, 67% had used family planning before. Despite the low uptake observed in the rural area, the overall uptake of family planning among the adolescents was 58% which showed that 101 out of 174 respondents had used family planning before leaving 42% (73 respondents) who had not used family planning before. In his research [14] reported a high uptake of family planning among adolescents in Southwestern Nigeria which was observed to have been influenced by rate of urbanization and relatively high income. In the study conducted by [15] a high knowledge of contraceptive methods (87.7%) was observed among female adolescents in a rural community of Ghana, but the utilization among them was low (17.9%). [16] in the study conducted among female adolescents in Ghana also reported that high contraceptive knowledge does not necessarily translate into use of the same. Uptake of family planning among adolescents has been found to be influenced by various factors such as low education, poor accessibility, culture, religion, partner support, etc [1, 17, 18].

Some studies have shown that uptake of family planning among adolescents is on the increase compared with uptake among older women [19], [20]. Low utilization of family planning was reported in northern Nigeria especially among adolescents [3], factors such as religion, culture and desire for large family could have been responsible for the low utilization. There are other reasons why there is low utilization of family planning among adolescents in Nigeria; most adolescents would not want to put themselves through the challenge of being stigmatized in health facilities where they can go to for easy access to family planning services, some parents find it difficult to give their children sex education because talking about sex

openly is tagged to be a taboo in most communities in Nigeria and this is fueled by cultures, traditions and religion. As a result of this, sexually active adolescents would rather hide and go for abortions if they get pregnant and would not want to access counseling and family planning services in health facilities but would rather go for other possible options for abortion e.g., drinking local concoctions and taking drugs bought over the counter. As much as sexual education should be promoted in schools and moral values taught in the society, it is also imperative that family planning should be made accessible to forestall needless death from post-abortion complications.

Conclusion

This study showed that the knowledge of family planning among adolescents in the federal capital is high although this did not translate to a high utilization of family planning among the adolescents as would have been expected. The attitude of the adolescents to family planning was quite impressive which

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could be linked to the high knowledge of family planning among the adolescents. To improve the uptake of family planning among adolescents especially the sexually active ones, it is important to create messages that will not only target the adolescents but their partners, religious institutions, parents, and the society.

There should be youth friendly clinics that provides family planning services to adolescents. They require a comfortable environment where they could access family planning services without fear of prejudice.

Conflict of Interest

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

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