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Original Research Article

Determinants of contraceptive choices among young females in northern Nigeria

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ABSTRACT

Background: Reproductive health is vital to societal wellbeing, and in Nigeria, home to one of the largest youth populations, understanding the factors influencing contraceptive choices is crucial for improving access and uptake. This study assessed determinants of contraceptive choices and patterns of uptake among young female undergraduates in northwestern Nigeria.
Methods: It was a descriptive, cross-sectional survey. The study was conducted among 400 female undergraduates of Ahmadu Bello University, Zaria, selected through a multistage sampling technique. Data were collected using a structured, pretested questionnaire administered by trained assistants. Analysis was performed with SPSS version 25.0.
Results: Of 400 questionnaires, 360 were completed, yielding a 90% response rate. Most respondents were single and aged 21-25 years. The oral contraceptive pill (20.3%) and male condom (18.9%) were the most commonly used methods. Availability (32.2%) influenced method choice, while safety (34.7%) was the most important determinant of use. Although 70% reported easy access to contraceptives, primary sources were patent medicine stores (25.8%), partners (22.7%), and parents (17.2%). Barriers included inadequate knowledge of proper use (24.4%) and fear of side effects (28.3%). Broader impediments were personal reasons, limited information, health system gaps, and negative provider attitudes. Marital status significantly influenced contraceptive use ($p<0.001$), while both marital status ($p=0.04$) and residence ($p<0.001$) determined consistency of use.
Conclusions: Contraceptive choice remains a key issue for young women. Enhancing availability, safety, clarity of use, and confidence in efficacy could substantially improve uptake among this population.

Keywords: Choice, Contraception, Female, Northern Nigeria, Young

INTRODUCTION

The reproductive health of young women is integral to the wellbeing of a society and understanding women's contraceptive method choices is key to enhancing family planning service provision and programming.[1,2] Approximately half a million women die around the world each year, as a result of pregnancy and associated complications.[3] Most of these deaths could be prevented, not only by providing immediate and appropriate medical care but also by offering family planning counselling and services, which could prevent many future unintended high-risk pregnancies and unsafe abortions.[4] In sub-Saharan Africa alone, it is estimated that 14 million unintended pregnancies occur every year, with almost half occurring among women aged 15-24 years.[5]

Many factors are considered by women, single or married, at points in their reproductive life, particularly when choosing the most appropriate contraceptive method. Some of these elements include safety, effectiveness, availability including accessibility, affordability and

acceptability.[6] Voluntary informed choice of contraceptive method is an essential guiding principle, on contraceptive counselling and is an important contributor to the successful use of contraceptive methods.[6]

Access to accurate information about contraception, and to non-judgmental provision of a wide range of methods of contraception, is critical to the needs and basic right of the adolescents and youths that make up the university population.[7] Many young undergraduates, particularly the sexually active unmarried, lack access to contraceptive information and services, and these adversely affect the decision they make concerning their choice of contraception and how to go about them, particularly relying on the information and experience of their peers.[8] The ability to access method of choice may also be hampered by out of stock at accessible facilities, provider preferences, limited information at facilities on full range methods, lack of trained providers, or local and national policies on family planning.[9,10]

There is not a single answer to the question on factors determining contraceptive decision-making.[11] Contributing factors differ for individuals and methods. A wide range of factors determine the choices that individual make in selecting a contraceptive method, including prior experience with contraception, knowledge of contraceptive methods and considerations of cost, effectiveness and side effects of various methods.[12] Reproductive life course, sexual behavior, long term and short-term fertility intentions are impacted by contraception decisions.

The university population is made up of young people, who hold the key to success in any endeavor- be it economic growth, development, health and in particular family planning which are integral to the achievement of any reproductive health goal and activity. Sexual activity places these young female undergraduates at the risk of unplanned pregnancies, HIV and other sexually transmitted diseases. While most sexually active youth avoid, delay or limit unwanted pregnancies, they are influenced by the choices available to them and most particularly by the choices they make, which is affected by other factors. The contraceptive prevalence rate in Nigeria is 17% and the unmet need for contraception 19%, while among the sexually active unmarried women, the unmet need for contraception is 45.7%.[13]

There is high rate of unintended pregnancy in sub–Saharan Africa and particularly in Nigeria with an estimated 6.8 million unwanted pregnancy each year.[14] While studies have identified barriers to contraceptive method use among youths, it has been shown however, that there are gaps in understanding the factors that influence the choice of method among young women.[15-18] This study, therefore, set out to explore the issues that influence the choices young women make on contraception and how it affects uptake in them because an uninformed choice heralds inconsistent use, contraceptive failure, unwanted pregnancy, unsafe abortion and its attendant consequential effect on morbidity and mortality.

Aim

To assess the determinants of contraceptive choices and level of uptake among female undergraduates in Ahmadu Bello University Zaria.

METHODS

This research was carried out on female undergraduates of Ahmadu Bello University, Zaria, Kaduna state, northwestern Nigeria and was conducted between June 2021 and October 2021.

Study design

The study was a descriptive, cross-sectional survey.

Inclusion/exclusion criteria

All female undergraduates of reproductive age group 15-49 years who were registered for the session, while female undergraduate of reproductive age who refuse consent, were too ill to participate or were not present at the time of study were excluded

Sample size determination

The sample size for the study was determined using the formula for cross-sectional study designs.[19]

$$n = \frac{Z^2 pq}{d^2}$$

Where n = required sample size

Z = standard normal deviate for normal distribution and is taken as 95%

Confidence interval level = 1.96 from Z table

P = Expected proportion of female undergraduates who use contraception. Using 0.37%, from the 2018 NDHS.[13]

q = 1.0 – p = 1 - 0.37= 0.63

d = degree of precision which is taken as 0.05. The acceptable error of the estimator at 95% confidence interval.

$$n = \frac{(1.96)^2 \times 0.37 \times 0.63}{(0.05)^2}$$

=358

With 10% non-response rate, sample size =397.

Therefore, a total of 400 female undergraduates were recruited for the study.

Method

A multistage sampling method was adopted to select female undergraduates in the university. The sample size was 400 female undergraduates selected from the study population.

At the first stage, a list of all the faculties in Ahmadu Bello University was obtained from the university information unit. Out of these faculties, 4 faculties were selected by simple random sampling employing simple balloting. At the second stage, A list of all the departments in the chosen faculties was obtained, thereafter 5 departments from each were chosen by simple random sampling (simple balloting). A total of 20 departments were selected for this study. At the third stage, 20 questionnaires were distributed to 20 female undergraduates selected by simple random sampling. in each department. Students were approached before the start of lectures and the study aim and objectives comprehensively explained, thereafter verbal consent was obtained from the participating students. The class representatives were involved in the recruitment exercise to facilitate the distribution and collection of the questionnaires before the end of the day.

The instrument for data collection was a well -structured survey questionnaire which was self-administered and designed in English language specifically for the study. The questionnaire contained five sections, covering the socio-demographic characteristics and the four objective areas of the study. The questionnaire was pretested among female undergraduates from one of the faculties, not selected during random sampling. After the pre-test, adjustments were made to fully validate the questionnaire before the survey. The questionnaires were administered with the help of 10 trained research assistants. Each to cover two departments. The research assistants were recruited and trained by the principal investigator on how to collect data; training was accomplished in a week and data collection after pretest, was completed in 12 weeks. The research assistants adequately briefed the students on the purpose of the study and content of the questionnaire before administration, with a written consent in the first page.

All data obtained were entered into and analyzed using the Statistical Package for the Social Sciences (SPSS) version 25.0 (IBM, New York, USA). The results were displayed by tables, charts and pictograms. Descriptive and inferential statistic were used to analyze the findings.

Ethical approval

Approval to conduct this study was obtained from the Research and Ethics Committee of the Ahmadu Bello University Teaching Hospital Zaria (ABUTH/HREC/CL/05/954524802).

RESULTS

A total of 400 questionnaires were distributed of which 360 were filled giving a response rate of 90%

Sociodemographic characteristics of study population

Majority of respondents were single and in the age range of 21-25 years. Most of the respondents were the 300-400 level and majority 66.7% were in campus.

Table 1: Socio-demographic characteristic of study population.

Variables	Frequency	Percent
Age group of respondents (years)		
15-20	52	14.4
21-25	221	61.4
26-30	80	22.2
31 and above	7	2.0
Marital status		
Single	311	86.4
Married	48	13.3
Divorced	1	0.3
Educational level		
100 level	6	1.6
200 level	30	8.3
300 level	200	55.6
400 level	104	28.9
500 level	20	5.6
Residency		
Off campus	120	33.3
In campus	240	66.7

Table 2: Contraceptive use and reason for choice.

Variables	Frequency	Percent
Use of contraception		
Yes	140	38.9
No	220	61.1
Reason for choice		
Readily available	116	32.2
Dislike for others	41	11.4
Cheap	49	13..6
Ensures privacy	79	22.0
Others	75	20.8
Consistent use		
Yes	55	15.3
No	305	84.7
Individual factors influencing choices		
Safety	125	34.7
Partner acceptance	44	12.2
Availability	58	16.1
Ease of use	45	12.5
Efficacy	35	9.7
Privacy	32	8.9
Others	21	5.9

Only 38.9% used a contraceptive, 15.3% constantly and being readily available was the most reason for choice among current users 32.2%. Safety of contraceptive method is the most influencing factor affecting contraceptive usage 34.7%.

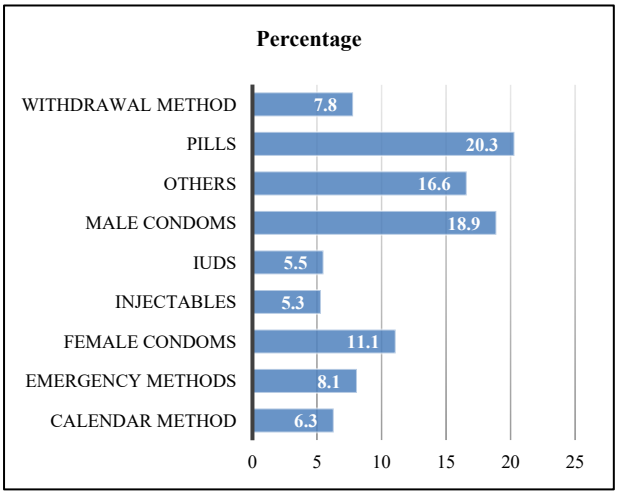

Figure 1: Currently used contraceptive.

Oral contraceptive pill was the commonly used contraceptive 20.3%, followed by male condom 18.9%.

Table 3: Ease of access, source and impediments to contraceptive access.

Easy access when desired	Frequency	Percent
Yes	252	70
No	108	30
Source		
Patent store	93	25.3
From friend	57	16.0
From partner	82	22.7
From hospital	62	8.3
Parent	30	17.2
Others	36	10.0
Impediments to access		
Personal	101	28.1
Health system deficiencies	68	18.9
Health workers approach	60	16.7
Lack of adequate information	99	27.5
Lack of youth friendly centers	32	8.8

Table 4: Relationship between consistent use of contraception and socio-demographic characteristics.

	Yes (%)	No (%)	χ^2	P value
Age group (years)			5.28	0.153
15-20	4 (4.0)	46 (15.6)		
21-25	40 (72.0)	175 (59.3)		
26-30	17 (22.0)	70 (23.1)		
31 and above	4 (2.0)	9 (2.0)		
Marital status			6.44	0.040*
Single	43 (82.0)	264 (87.0)		
Married	10 (16.0)	41 (13.0)		
Divorced	2 (2.0)	0 (0.0)		
Educational level			3.65	0.600
100 level	4 (2.0)	6 (1.7)		
200 level	10 (14.0)	26 (8.5)		
300 level	30 (50.0)	155 (52.9)		
400 level	15 (24.0)	91 (31.1)		
500 level	7 (8.0)	16 (5.1)		
Residency			14.66	0.000*
Off campus	35 (60.9)	95 (31.7)		
In campus	25 (39.1)	205 (68.3)		

*P<0.05.

70% of respondents can easily access a contraceptive method when in need of one. Patent store was the common source of contraception when desired 25.8%. Personal reasons were the leading impediments to use of contraception, followed closely by lack of adequate information on contraception, as well as health systems deficiency and health workers' approach.

There was a significant relationship between marital status and place of residency with constant use of contraception and age group (p=0.04 and 0.00 respectively).

There was also a significant relationship between reason for contraceptive use and marital status (p=0.000).

Table 5: Relationship between reason for contraception use and socio-demographic characteristics.

	Prevent unwanted pregnancy (%)	Prevent sexually transmitted diseases (%)	For medication (%)	Child spacing (%)	Others (%)	χ^2	P value
Age group (years)							
15-20	16 (13.8)	2 (5.3)	4 (22.2)	2 (6.5)	4 (14.8)	17.94	0.117
21-25	74 (63.8)	29 (76.3)	10 (55.6)	18 (58.1)	11 (40.7)		
26-30	26 (22.4)	6 (15.8)	3 (16.7)	10 (32.3)	11 (40.7)		
31 and above	0 (0.0)	1 (2.6)	1 (5.6)	1 (3.2)	1 (3.7)		
Marital status							
Single	104 (88.1)	38 (97.4)	13 (76.5)	13 (43.3)	21 (77.8)	47.65	0.000*
Married	14 (11.9)	0 (0.0)	4 (23.5)	17 (56.7)	6 (22.2)		
Divorced	0 (0.0)	1 (2.6)	0 (0.0)	0 (0.0)	0 (0.0)		
Educational level							
100 level	1 (0.9)	1 (2.7)	0 (0.0)	2 (6.5)	0 (0.0)	23.55	0.263
200 level	12 (10.4)	3 (8.1)	2 (11.1)	2 (6.5)	6 (23.1)		
300 level	68 (59.1)	23 (62.2)	11 (61.1)	12 (38.7)	12 (46.2)		
400 level	28 (24.3)	7 (18.9)	4 (22.2)	13 (41.9)	7 (26.9)		
500 level	6 (5.2)	3 (8.1)	1 (5.6)	1 (3.2)	1 (3.8)		

*P<0.05.

DISCUSSION

Our study found low contraceptive use 38.9%. This is in consonance with previous studies in Nigeria which showed that despite a high level of awareness, there was low level of usage.[20,21] Consistent use of contraception from our study was only 15.3%, in keeping with result from a tertiary institution in Kano state Nigeria, which sampled 300 respondents between the age range of 16-26 years and found consistent use of contraception at 16% despite a high knowledge at 87.7%.[22] Other studies also reported low consistent use.[1] The low levels of consistent use we found is not unconnected to the study setting being carried out in northern Nigeria which traditionally records low use of contraception.

Our study found that the most used contraceptive method among female undergraduate was oral contraceptive pill 20.3%, followed closely by the male condom 18.9%. This finding is consistent with a previous study in Zaria, which also found the oral contraceptive pill as the most used contraceptive method, 11.0%, seconded by the male condom 9.3%.[23] It is however at variance with other reported findings, which found the male condom as the most used method.[24-26] Another study found an equivalent use of both male condom and pill, while the study in Sokoto, found Implanon as the most common method of contraception, (although carried out among mostly married women), another found traditional method as the most used method 49%.[27-29]

Our study found the main reason for contraceptive choice among those currently using was being readily available 32.2%. This followed closely by privacy concerns 22%. On individual peculiar factors influencing contraceptive use, the most common factor identified was safety 34.7%. The main challenges in the use of contraception identified by respondents were lack of knowledge on how to use a contraceptive, 24.4%, disapproval by parents and partners, 15.3% and 11.7% respectively and lack of information on where to get contraception 8.8%. Other significant factors highlighted include fear of side effects 28.3%, religious opposition 20% and fear of contraceptive failure18.6%. Our finding aligns with report showing contraceptive use was limited by lack of knowledge, obstacles to access and concern over side effects.[30] A study reported real and perceived fear of side effects is a major barrier to the use of contraception, while another also reported that the fear of side effect is a significant factor.[31,32]

While access to contraceptives remains a topical issue and absence of contraceptive services in the tertiary institutions has further led to increased rates of unwanted pregnancy, unsafe abortions and STI among undergraduates of our universities, our study found there is an easy access to contraceptive (70%), however the most common source was patent stores (25.8%), while partner and friends were the other sources 22.7% and 16% respectively.[33,34] The finding is in contrast with the research reports, which found peers and friends as sources of information rather than contraception.[29,35] On impediments to access and use of contraception, respondents identified personal reasons 28.1%, lack of adequate information 27.5%, health system deficiencies 18.9%, health worker approach 16.7% and lack of youth friendly centers 8.8%. It is imperative for these factors to be acknowledged, as it has been shown that, for information and services to effectively reach young people, youth-friendly services are needed that encourage youth to be agents of their own social and health welfare.[36] We also found marital status as the sole significant reason affecting contraceptive use, while the significant factors affecting consistent use were found to be marital status and place of residence.

CONCLUSION

This study found availability and safety are the main factors affecting choice and main access to contraception are mostly manned by unskilled health personnel. These findings are important for programs and policies aimed at increasing the uptake of contraception.

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Ethical approval: The study was approved by the Institutional Ethics Committee of the Ahmadu Bello University Teaching Hospital Zaria (ABUTH/HREC/CL/05/954524802)

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