

Knowledge and Behavioural Skill as Predictors of Contraceptive-Use among Female Undergraduates in a Tertiary Institution in Ogun State, Nigeria

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Abstract

Background: Unintended pregnancies and unsafe abortion is a global health issue and can be prevented through the use of contraceptive were sexual abstinence is impracticable. Unsafe sexual practices have drastic consequences on sexual and reproductive health and contributes immensely to maternal mortality.

Objective: The objective of this study was to determine how level of knowledge and behavioural skill predicts contraceptive-use among female undergraduates in a selected university in Ogun state, Nigeria.

Methodology: This was a descriptive cross-sectional study conducted among 241 female undergraduates using a validated interviewer administered questionnaire. Descriptive statistics, Pearson correlation and Logistic regression analysis was used to determine which construct best predicts contraceptive-use using SPSS version 24.0.

Results: Study revealed level of knowledge of respondents was 6.56 ± 1.85 with a prevalence score of 54.6%, mean score for behavioural skill was 6.50 ± 4.44 with a prevalence score of 27.1% and mean score for contraceptive-use was 2.68 ± 1.92 with a prevalence score of 38.28%. Behavioural skill was significantly associated with contraceptive-use ($R= 0.400$; $R^2=0.16$; $p=0.00$) hence a better predictor of contraceptive-use.

Conclusion: Findings from this study shows there is need for sensitization and empowerment of women with the aim of increasing their behavioural skill as knowledge alone is not sufficient in increasing the use of contraceptives where sexual abstinence is impracticable.

Keywords: Contraceptive, Knowledge, Behavioural skill, Undergraduates, Female.

Introduction

Contraceptive may be viewed as the hub on which other sexual and reproductive health (SRH) indicators such as fertility rate, maternal mortality rests¹. Appropriate use of contraceptive is capable of preventing unintended pregnancies, unsafe abortion², maternal mortality³. Till date, unintended pregnancies and unsafe abortion is on the rise with the former estimated to have contributed to about 8 to 30 million annual pregnancies worldwide⁴. Also, global abortion rate is estimated at 26 per 1000 for unmarried women as of 2010 - 2014⁵. Globally, 214 million women of reproductive age who do not want to get pregnant are not using modern contraceptives⁶. Statistics reveals women in their early twenty's accounts for the majority of the population who do not use contraceptive⁷.

Inspite of all the well-known advantages of contraception, a report by the United Nations Population Fund (UNPFA) documented that there are unmet needs: contraceptive-use among women was found to be 13% in sub-Saharan Africa⁸. Factors responsible for this low usage included sociocultural and religious belief among sexually active unmarried females because the society views premarital sex as a taboo for unmarried youths which tends to reduce their health seeking behavior towards SRH services⁹.

Young Nigerians experience a range of early sexual activities which may be consensual or coercive¹⁰. Increased rate of sexual activities could lead to unintended pregnancies and as much as this occurs in women of all ages, adolescents are mostly affected¹¹. It is documented that the prevalence of unintended

pregnancies and abortion in Nigeria as at 2012 was 59 and 33 per 1000 women¹².

Despite efforts by both Government and non-governmental organisations to improve access to contraceptives by creating awareness and youth friendly clinics where sexual and reproductive health issues can be tackled with the aim of attaining a Contraceptive Prevalence Rate (CPR) of 27% by 2020, the current CPR in Nigeria is still low at 17% and Total Fertility Rate (TFR) of 5.3 only experiencing a slight difference between 2013 (CPR 15% and TFR 5.5) and 2018¹⁰. Studies have shown that this slow increase of CPR may be due to factors that are both intrapersonal and ecological. Multiple studies conducted among young people found that factors such as knowledge¹³, poor access to SRH services¹⁴, behavioural skill¹⁵, intention¹⁶ may have contributed to the low uptake of contraceptives. To the best of the researcher's knowledge, study regarding the behavioural skill (self-efficacy) in conjunction with level of knowledge among young people is yet to be documented in south western Nigeria. This study therefore sought to determine the level of knowledge and behavioural skill and identify which construct best predicts contraceptive-use. It is hoped that findings from this study will add to existing knowledge and help create policies that will improve the SRH status of Nigerians.

Methodology

Research design

This is a descriptive cross-sectional study design.

Study area

This study was conducted in Olabisi Onabanjo university, a tertiary institution located in Ago-iwoye in Ogun state. It was founded July 7, 1982 as Ogun State University (OSU) and was later renamed Olabisi Onabanjo University on May 29, 2001. The university has had a total output of 10,291 graduates and 1,697 postgraduates. The University has multiple campuses. The Main Campus in Ago-Iwoye is popularly called Permanent Site (PS), faculty of Agriculture in Aiyetoro, faculty of Engineering in Ibogun, College of Medicine, faculties of Basic Medical Sciences and Pharmacy are in Sagamu. The university has ten faculties with a total number of fifty-six departments spread across its campuses in the state.

Study population

The population of study are female undergraduates from various departments between the ages of 16 – 25 years.

Sample size determination

The sample size was determined using Cochran's formula. The CPR in Nigeria as at 2018 was 17% (NDHS, 2018).

$$Z\alpha (N) = \frac{Z^2 S^2}{d^2}$$

$$\text{Where } S^2 = P [1-P] = PQ$$

Z; standard normal deviation

p; prevalence

q; probability of the event not occurring

e: desired level of precision

$$Z^2 = 1.96^2,$$

$$P = 0.17$$

$$Q = 1 - 0.17 = 0.83$$

$$d^2 = 0.05^2$$

$$S^2 = PQ, N = \frac{Z^2 PQ}{d^2}$$

$$d^2$$

$$\text{Therefore, } = \frac{1.96^2 \times 0.17 \times 0.83}{0.05^2}$$

$$n = 216.8$$

This is approximately 217.

10% of the sample size was added to 217 to take care of no response. This gave a minimum sample size of 241 female undergraduates.

Sampling technique

Simple random sampling technique was employed in selecting the participants for this study. Based on availability and willingness to partake in the study, respondents were selected using random numbers from each department.

Data collection

A validated, semi structured, questionnaire consisting of four sections and having a Cronbach's alpha reliability of 0.71 was used. The Knowledge variable was measured on a 12-point rating scale, the behavioural skill was measured on a 24-point rating scale while contraceptive-use was measured on a 7-point rating scale. A pilot study on 10% of the total sample size was conducted in a school of similar characteristics but not the actual population of interest. Two research assistants were trained on how to administer the questionnaire. Ethical approval was obtained from Babcock University Health Research Ethical Committee (BUHREC). Respondents participated voluntarily in the

study after signing a consent form. Participant names and relevant identification data was excluded ensuring strict anonymity and confidentiality.

Data analysis

Results

Data from the questionnaire was recoded and entered into the computer assisted Statistical Package for Social Sciences (SPSS) version 24.0. Data was analyzed using descriptive statistics, Pearson's correlation and Logistic regression and results expressed in tables and percentages.

Table 1. Socio-demographic characteristics

Characteristics	Frequency (n=241)	Percentage (%)
Age		
16 -18	28	11.6
19 -21	135	56.0
22 – 25	78	32.4
Ethnic origin		
Yoruba	222	92.1
Igbo	14	5.8
Hausa/Fulani	3	1.2
Others (akwa-ibom, Edo)	2	0.8
Religion		
Christian	171	71.0
Muslim	66	27.4
Traditional	4	1.7
Level		
100	42	17.4
200	60	24.9
300	74	30.7
400 and above	65	27.0
Relationship status		
In relationship	104	43.2
Not in relationship	122	50.6
Married	15	6.2
Number of children alive		
None	215	89.2
One	18	7.5
Two	5	2.1
Three and above	3	1.2
Sexual partner		
None	175	72.6
One	53	22.0
Two	4	1.7
Three & above	9	3.7

Socio-demographic characteristics

As shown in table 1 below, respondents between the ages of 19 to 21years accounted for more than half (56.0%). Of the respondents, majority (92.1%) were of Yoruba origin, majority (71.0%) were Christians while majority (30.7%) were in three hundred level. About half

(50.6%) of the respondents were not in a relationship. A greater proportion (89.2%) of the respondents had no children with most (72.6%) of the respondents having no sexual partner.

Knowledge

From this study, it was observed that majority (93.4%) of the respondents stated that a woman

can get pregnant at coitarche. Majority (98.3%) of respondent stated that contraceptive is used to prevent pregnancy and should be used at coitus (86.7%).

The most popular types of contraceptive known by respondents were condoms (42.3%), emergency pills (17.8%), and withdrawal methods (14.7%).

Respondents sources of information on contraceptives includes; social media (47.4%); peers (26.1%) and family (15.5%). It was observed that social media (51.1%) was the most preferred source of information about contraceptives.

The respondent's level of knowledge measured on a 12-point rating showed a mean score of 6.56 ± 1.85 . This translates to 54.6%. The proportion of the respondents with moderate level of knowledge was 69.3% based on this, one can infer that the respondents had moderate level of knowledge of contraceptive.

Behavioural Skill (self-efficacy)

On behavioural skills, half (50.2%) of the respondents reported that they could always discuss contraception use with their sexual partner with Less than half (42.7%) of the respondents reporting that they can always initiate contraception use during intercourse. Few (13.7%) of the respondents reported that they could use contraceptive regularly despite uncomfortable side effects experienced. Also, few (25.5%) respondents reported that they would always use contraceptive even if their partner did not like it.

Overall, the respondent's behavioural skill measured on a 24-point rating scale showed that the respondents scored a mean of 6.50 ± 4.44 translated to prevalence of 27.1% The proportion of the respondents with low behavioural skill of contraceptive-use was

65.6%. One can infer that most of the respondents had low behaviour skill of contraceptive-use.

Contraceptive-use

On contraceptive-use, less than half (31%) of the respondents reported that they always use contraceptives during coitus. The commonly used contraceptives reported by the respondents were emergency pills (20.3%), condom (37.9%) and withdrawal (17.7%). Eighty-seven (36.1%) respondents reported that most contraceptives were less convenient.

The respondents' contraceptive-use measured on 7 points rating scale showed a mean score of 2.68 ± 1.92 translating to contraceptive prevalence of 38.28%. The proportion of the respondents with low contraceptive-use was found to be 71.4%. Based on this, it can be inferred that most of the respondents had low contraceptive-use.

The correlation analysis was used to test the hypotheses in order to assess the relationship between knowledge and behavioural skill with contraceptive-use. The logistic regression analysis was equally used to test which variable was a better predictor of contraceptive-use. The result showed no significant relationship between respondents' knowledge of contraceptive and respondents contraceptive-use ($r=0.12$; $p=0.06$). However, there was a significant relationship between respondents behavioural skill and contraceptive-use ($r=0.400$; $p=0.00$) (See table 2). Also, the multiple regression analysis showed that respondent's behavioural skill had a significant association with contraceptive-use ($R= 0.400$; $R^2=0.16$; $p=0.00$). It can therefore be inferred that behavioural skill is a better predictor of contraceptive-use.

Table 2. Relationship between Knowledge, Behavioural skills and Contraceptive-use

Variable	Contraceptive-use N=241 R	P-value
Knowledge	0.12	0.06
Behavioural skill	0.40	0.00*

*Significant at $p<0.05$

Discussion

This study was a descriptive cross-sectional study that sought to determine knowledge and

behavioural skills as predictors of contraceptive use among female undergraduates. It was observed that a large number of respondents

were within the age of 19 - 21 with half (50.6%) of the respondents not in a relationship and majority having no children (89.2%). This indicates a greater proportion of undergraduates are young and unmarried and therefore have a tendency to indulge in sexual practices. It is therefore necessary that these at-risk population have good knowledge and behavioral skill of safe sexual practice.

Results revealed that most of the respondents indicated that a woman can get pregnant at coitarche and that contraception is a device that prevents pregnancy when used at coitus. Findings from this study indicated that the most common contraceptive is the condom and this seem to be universal in various similar study reported over the years; Nigeria¹⁷ and Ghana¹⁸ to mention a few. These similarities in the aforementioned studies may be due to the fact that condom is universally readily available and affordable.

The social media is the major source of information on contraceptive-use in this study. This is contrary to similar studies that has been conducted. For instance, a study conducted in Botswana indicated that the hospital or clinics was the most common source of information on contraceptives¹⁹ and television in a study conducted in Tanzania²⁰. However, this result is consistent with existing study¹⁴.

It was found that respondents had moderate level of knowledge of contraceptive-use which contradicts previous finding in same university¹³. This moderate level of knowledge may be linked to the high use of social media. Therefore, this means of communication is commendable and should be used extensively to create awareness regarding sexual and reproductive health issues as a greater percentage of young adults use atleast one form of social media.

On behavioural skill, half of the respondents noted that they can discuss contraception with their sexual partner and less than half reported they could initiate the use of contraceptive at coitus. When asked, few of the respondents stated they could regularly use contraceptive despite uncomfortable side effects and few respondents stated they would always use contraceptives even if their sexual partner did not like it.

Generally, respondent's behavioural skill was very low. This may be attributed to the moderate level of knowledge demonstrated by the respondents; multiple studies support the findings that there is a strong association between education and self-efficacy as a result of increased chances of understanding contraceptive information^{21,22}. Women with low self-efficacy and behavioural skill, especially in highly patriarchal societies, are probably less likely to make independent decisions on matters of contraceptive-use and adherence.

Also, the use of contraceptive among respondents in this study was recorded to be low and this corresponds to previous studies conducted by other researchers¹³. Condom was the most commonly used contraceptive among respondents in this study which parallels a previous survey in Ghana that reported the male condom as the most common method of contraceptive²³. The result however contradicts the results of another study in Ghana where the injectable was the most widely known method of modern contraceptive among its respondents²⁴. It is possible that the low use of contraceptive in this study may be due to the fact that majority of the respondents had no sexual partners and low behavioural skills.

Conclusion

In conclusion, the results from this study suggests that knowledge alone does not influence use of contraceptives as there is no direct positive correlation between knowledge and use of contraceptives. Nevertheless, behavioural skill was reported to have an association with contraceptive-use and also serve as a better predictor of contraceptive-use.

Based on the findings of this study, the following are therefore recommended;

1. Women should be empowered with the aim of boosting their behavioral skill.
2. Social media should be adequately utilized in the spread of health-related issues.
3. There should be intense educational intervention to enhance knowledge on the importance of contraceptive-use and their side effects.

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