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Research Article

Perceived Barriers Influencing Uptake of Contraceptives among Female Undergraduates in a Nigerian University

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ABSTRACT

Utilization of contraceptives by adolescents and youths remains one of the ways to prevent unwanted pregnancy, abortion, and sexually transmitted infections. However, barriers have been reported to hinder contraceptive uptake by female undergraduates. The aim of the study was to determine perceived barriers influencing uptake of contraceptives among female undergraduate in the University of Benin, Edo State. A descriptive cross-sectional research design was used for the study consisting of 305 female undergraduates undergoing a full-time program in University of Benin (UNIBEN) sampled through a multi-stage sampling technique. A pretested semi-structured questionnaire constituted the sole research instrument employed in this study and was divided into sections A-G. The collected data were entered into IBM SPSS 21.0 and were analysed using logistic regression with the level of significance set at 0.05. Knowledge was a positive predictor of uptake of contraceptives as respondents with good knowledge of contraceptives were more likely to utilize contraceptive (AOR=3.038, 95% CI=0.891-10.359). Furthermore, barriers that could hinder uptake of contraceptives were fear of side effect (AOR=0.926, 95% CI=0.501-1.273), too much waiting time at the clinic (AOR=0.712, 95% CI=0.259-0.812), partners disapproval of use (AOR=0.941, 95% CI=0.961-1.972) and stigmatization of adolescent sex among health workers (AOR=0.903, 95% CI=0.558-1.528). The study highlighted attitudinal, accessibility, cultural and health workers behaviour as factors that can influence the uptake of contraceptives. Therefore, strategies to circumvent these barriers among youths should be implemented in higher institutions and communities.

Keywords: *Contraceptives, female undergraduate, perceived barriers, unwanted pregnancy, abortion, Sexually Transmitted Infections*

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INTRODUCTION

Contraception is the intentional use of contraceptives to prevent conception and impregnation (New Encyclopedia Britannica; Adibe et al., 2010). The need for contraceptives among adolescents and young adults females have been highlighted due to the rising population growth in the country which according to the National Population Commission has risen to 198 million in 2017. Furthermore, the Total Fertility Rate among Nigerian women is still high 5.3 children (Nigeria Demographic and Health Survey, 2018) and many of these pregnancies are among young adult females who are sexually active and engage in illicit sexual activities resulting in unwanted pregnancies which are often aborted (Oye-Adeniran et al., 2014). Globally, it has been estimated that over two hundred million pregnancies occur yearly; of which 50% are unplanned while 25% are unwanted (World Health Organization, 2014). These pregnancies engender unsafe practices which contribute significantly to the high maternal deaths worldwide especially in developing countries like Nigeria (Omo-Aghoja et al., 2009). Moreover, the high rate of

sexual activities among Nigerian undergraduates has posed serious health and social risks such as Sexually Transmitted Infections (STI) including Human Immunodeficiency Virus (HIV), Teenage Pregnancy, Unsafe Abortion practices, School dropout and others (Aziken et al., 2010). For instance, a previous study in the University of Port Harcourt South-South Nigeria showed a 47.20% occurrence of abortion among female students (Orijide et al., 2009). In addition, according to the United Nations estimate of 2006, one out of every two new HIV infections occur among young adults between the ages of 15 and 24 years, and most undergraduates fall between this age brackets (UNAIDS/WHO, 2006).

Contraceptive use has been proposed as the best way of reducing unsafe abortion, preventing some sexually transmitted infections such as HIV and unwanted pregnancy among sexually active young adults (Gama, 2008). According to the World Health Organization Report, (2010) on the data of contraceptive prevalence in 53 African countries, confirms that Nigeria has 14.1% contraceptive prevalence rate, in contrast to other African countries like Mauritius with 75.8%,

Morocco 63.0%, Algeria 61.4%, Cape Verde 61.3%, Egypt 60.3%, South Africa 60.3%, Tunisia 60.2%, Zimbabwe 60.2%, Namibia and Swaziland with 55.1% and 50.6% respectively.

Several factors have been highlighted as barriers to uptake of contraceptives in developing countries like Nigeria. These factors include poor physical access to family planning provider and time constraints, poverty, illiteracy, poor coordination of family planning programs and negative cultural and religious beliefs. Others are the fact that youths at most times do not have fundamental reproductive awareness on the penalty of sexual intercourse, youths lack skills in negotiating sexual relationship and awareness concerning inexpensive private reproductive health services (Indongo, 2007; Utoo and Araoye, 2013).

Consequently, with the increasing rate of sexual activities among undergraduates and the corresponding decrease in age at first sex in developing countries including Nigeria (Aziken et al., 2010), there is the need to research on the factors hindering the uptake of contraceptives among undergraduate female students so as to proffer solutions and improve their future reproductive outcomes. This study explores the perceived barriers influencing uptake of contraceptives among female undergraduates at the University of Benin, Benin City Edo State.

MATERIALS AND METHODS

Study design: A descriptive cross-sectional research design was used for the study.

Study area: The study was conducted in the University of Benin (UNIBEN) main campus which is a Federal institution in Egor Local Government Area. The University of Benin was founded in 1970. It started as an Institute of Technology and was granted the status of a full-fledged University by National Universities Commission (NUC) on 1st July 1971.

Study population: The study population for the research work consisted of female undergraduates undergoing full-time program at the University main campus. This was about 17,596 (Central Records Processing Unit, 2017).

Inclusion criteria: The inclusion criteria were undergraduate female students (offering full-time program) in UNIBEN main campus that willingly consented to participate in the study.

Sample Size Determination: Sample size was determined using single population proportion formula $n = Z^2 p (1-p) / d^2$, with the following assumptions: Contraceptive prevalence rate of 14.1% in Nigeria (WHO, 2010), 95% confidence level, 5% margin of error. Thus the minimum sample size was calculated to be 305.

Sampling Procedure: To obtain a representative sample, a multi-stage sampling technique was used to select 305 participants from the target population of female undergraduates in the University of Benin.

Stage one: The University was clustered into various faculties

Stage two: Seven faculties were randomly selected from the fourteen (14) faculties in UNIBEN using the lucky deep method.

Stage three: Two departments each were randomly selected from the seven selected faculties in UNIBEN using the lucky deep method.

Stage four: 305 participants were randomly selected from the 14 departments in UNIBEN.

Instrument and data collection: The instrument for data collection was a semi-structured questionnaire. The questionnaire was divided into seven sections namely Section A which comprised of Demographic data with seven questions, while Section B assessed the Knowledge about contraceptives with seven questions and Section C includes Attitude towards contraceptive use with twelve questions. In addition, Section D includes questions on Accessibility to contraceptives with fourteen questions, while Section E comprised Cultural beliefs with thirteen questions, Section F: Health workers' behaviour with twelve questions and Section G includes Uptake of contraceptives with five questions.

Data analysis: Face and content validity was ensured by consulting research experts in the field of medicine. In addition, to ensure the reliability of the instrument, test-retest was done on a small group of 30 female undergraduates from Ambrose Ali University which is a state-owned university. This was done in order to measure the stability, consistency, and dependability of the research instrument. The Cronbach Alpha reliability score was 0.69. The questionnaire was retrieved, coded and analyzed using SPSS (Statistical Package for Social Sciences) version 21.0. Logistic regression was used as a predictor to assess the influence of knowledge on contraceptive use among the respondents, attitude towards contraceptive use, accessibility to contraceptives, cultural beliefs and health workers' behaviour towards uptake of contraceptives by undergraduates at $P < 0.05$. In addition, knowledge of contraceptives among the respondents was measured on a 9 point knowledge scale graded; ≤ 4 as poor knowledge of contraceptive and ≥ 5 as good knowledge of contraceptive.

Ethical Consideration: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Informed consent was obtained from the respondent. Ethical approval to carry out the study was sought from the University of Benin Research and Publication Committee and the Ethical Review Committee (ERC).

RESULTS

Socio-Demographic Characteristics of the Respondents

As shown in Table 1 below, more than half 183(60.0%) of the respondents were between the ages of 15-19 years and almost all 300(98.40%) were single.

Contraceptives use among female undergraduates

Table 1:
Socio-demographic characteristics of the respondents (n=305)

| Variable | | Frequency | Percentage |
|--------------------|--------------|-----------|------------|
| Age | 15-19 | 183 | 60.0 |
| | 20-24 | 108 | 35.40 |
| | 25-29 | 14 | 4.60 |
| Marital Status | Single | 300 | 98.40 |
| | Married | 5 | 1.60 |
| Level of Study | 100 | 133 | 43.60 |
| | 200 | 73 | 23.90 |
| | 300 | 75 | 24.60 |
| | 400 | 21 | 6.90 |
| | 500 | 3 | 1.0 |
| Religion | Christianity | 290 | 95.0 |
| | Islam | 9 | 3.0 |
| | Traditional | 3 | 1.0 |
| | None | 3 | 1.0 |
| Number of children | None | 291 | 95.30 |
| | 1 | 12 | 4.0 |
| | 2 | 2 | 0.70 |

Mean Age: 19.27±2.45

Knowledge as a Positive Predictor of Uptake of Contraceptive: Logistic regression of knowledge as a predictor of uptake of contraceptive shows that using poor knowledge as a reference category, respondents with good knowledge of contraceptives are more likely to utilize contraceptive (OR=3.038, 95% CI= 0.891-10.359) than respondents with poor knowledge of contraceptive (Table 2).

Table 2:
Knowledge as a Positive Predictor of Uptake of Contraceptives

| Knowledge | Df | Sig. | Odds Ratio | 95% CI | |
|-----------|----|-------|------------|--------|--------|
| | | | | Lower | Upper |
| Poor(r) | 1 | 0.000 | 2.743 | | |
| Good | 1 | 0.076 | 3.038 | 0.891 | 10.359 |

Table 3:
Attitude towards Contraceptive as a Predictor of Contraceptive Uptake

| Attitude towards contraceptive use | Df | Sig. | COR | AOR | 95% CI | |
|--|----|-------|-------|-------|--------|-------|
| | | | | | Lower | Upper |
| I know what contraceptives are | 1 | 0.822 | 1.093 | 1.812 | 0.504 | 2.366 |
| I think contraceptive use is beneficial to the undergraduate | 1 | 0.009 | 2.130 | 2.088 | 1.206 | 3.761 |
| I don't see anything wrong with using contraceptives | 1 | 0.362 | 0.757 | 1.816 | 0.416 | 1.378 |
| I can take it if there is a need | 1 | 0.003 | 2.660 | 2.685 | 1.409 | 5.022 |
| I belief contraceptive is necessary to prevent abortion | 1 | 0.042 | 1.722 | 1.811 | 1.020 | 2.909 |
| I can recommend contraceptives to sexually active persons | 1 | 0.010 | 0.491 | 1.618 | 0.286 | 0.845 |
| I believe contraceptives have a serious side effect | 1 | 0.344 | 0.788 | 0.926 | 0.501 | 1.273 |
| Contraceptives can only be used by married people | 1 | 0.085 | 1.388 | 0.998 | 0.956 | 2.016 |
| My friends will make fun of me if they see me using contraceptives | 1 | 0.000 | 2.592 | 1.416 | 1.612 | 4.169 |
| I believe that condoms are difficult to use & interfere with sexual pleasure | 1 | 0.000 | 2.204 | 1.518 | 1.413 | 3.436 |
| I am ashamed to use contraceptives | 1 | 0.000 | 0.342 | 0.472 | 0.202 | 0.582 |
| I do not trust contraceptive at all | 1 | 0.000 | 0.377 | 0.400 | 0.227 | 0.625 |

COR=Crude Odds Ratio, AOR=Adjusted Odds Ratio

Table 4:
Accessibility as a predictor of contraceptive uptake

| Accessibility to contraceptive | df | Sig. | COR | AOR | 95% CI | |
|--|----|-------|-------|-------|--------|-------|
| | | | | | Lower | Upper |
| Clinic hours are not convenient for me | 1 | 0.000 | 2.514 | 1.188 | 1.519 | 4.160 |
| It is hard to get transportation to the clinic | 1 | 0.757 | 1.087 | 1.116 | 0.640 | 1.848 |
| It is hard for me to get time off school to go to the clinic | 1 | 0.000 | 0.382 | 0.664 | 0.223 | 0.654 |
| It takes too long to get an appointment to get contraceptive | 1 | 0.582 | 1.159 | 0.958 | 0.686 | 1.956 |
| There is too much waiting time at the clinic | 1 | 0.007 | 0.459 | 0.712 | 0.259 | 0.812 |
| I am too busy to get pills | 1 | 0.014 | 0.566 | 0.836 | 0.360 | 0.892 |
| There is a clinic close to where I live | 1 | 0.733 | 0.921 | 1.047 | 0.574 | 1.477 |
| I cannot afford the cost | 1 | 0.012 | 1.823 | 1.256 | 1.143 | 2.907 |
| Contraceptives can only be gotten outside the school | 1 | 0.001 | 2.623 | 1.117 | 1.450 | 4.746 |
| Contraceptive for students are located at a relatively long distance from the institution | 1 | 0.205 | 0.729 | 1.046 | 0.447 | 1.188 |
| The only place I can get contraceptives are pharmacy shops | 1 | 0.137 | 0.725 | 1.314 | 0.475 | 1.107 |
| I cannot seek advice from health workers on issues of contraception & reproductive health | 1 | 0.000 | 4.215 | 1.612 | 2.433 | 7.305 |
| School opens from Monday to Friday between 8 am to 5 pm as a result, I cannot go to the clinic seeking contraceptive during school period/time | 1 | 0.042 | 0.572 | 0.787 | 0.334 | 0.980 |
| There is inconsistency or unavailability of contraceptives in the family planning clinic | 1 | 0.512 | 0.873 | 1.104 | 0.582 | 1.310 |

COR=Crude Odds Ratio, AOR=Adjusted Odds Ratio

Attitude towards Contraceptive Use as a Factor Influencing the Uptake of Contraceptives among Female Undergraduates: Multiple logistic regression of the attitude of the respondents as a predictor of the uptake of contraceptive shows that respondents are less likely to utilize contraceptives if they believe contraceptive has side effect (AOR=0.926, 95% CI=0.501-1.273) and if they have the notion that contraceptive can only be used by married people (AOR=0.998, 95% CI=0.956-2.016) (Table 3).

Accessibility as a Barrier to the Uptake of Contraceptives among Female Undergraduates: Multiple regression of accessibility as a factor influencing the uptake of contraceptive shows that respondents are less likely to utilize contraceptives because they believe it is hard for them to get time off school to go to the clinic (AOR=0.664, 95% CI=0.223-0.654) and because they believe there is too much waiting time at the clinic (AOR=0.712, 95% CI=0.259-0.812) (Table 4).

Table 5:
Cultural belief as a predictor of uptake of contraceptive

| Cultural Beliefs | df | Sig. | COR | AOR | 95% CI | |
|---|----|-------|-------|-------|--------|-------|
| | | | | | Lower | Upper |
| It is wrong to use contraceptive in my culture | 1 | 0.222 | 1.309 | 0.987 | 0.849 | 2.018 |
| It is wrong to use contraceptive before marriage | 1 | 0.073 | 0.684 | 0.688 | 0.451 | 1.036 |
| My parents are against contraceptive | 1 | 0.631 | 1.121 | 0.773 | 0.704 | 1.785 |
| I wouldn't use contraceptive if my partner disapproved | 1 | 0.081 | 1.377 | 0.941 | 0.961 | 1.972 |
| My family isn't supportive of me using contraceptive | 1 | 0.013 | 0.593 | 0.622 | 0.393 | 0.895 |
| I don't believe in contraceptive | 1 | 0.763 | 0.932 | 0.717 | 0.590 | 1.472 |
| Young people or unmarried people are not allowed to engage in sexual intercourse without following some tradition | 1 | 0.100 | 0.385 | 0.910 | 0.939 | 2.041 |
| Virginity tend to fetch greater bridal wealth in my community | 1 | 0.000 | 0.398 | 0.498 | 0.267 | 0.593 |
| Those not found to lose their virginity before marriage are seen as an outcast and bring shame upon themselves and family | 1 | 0.004 | 1.641 | 1.170 | 1.175 | 2.291 |
| My parents must not see me using contraceptives | 1 | 0.429 | 1.178 | 0.818 | 0.785 | 1.767 |
| My community stress on moral decency and abstinence for the youths | 1 | 0.286 | 0.808 | 0.710 | 0.546 | 1.195 |
| Shame is preventing me to use family planning (specifically condoms) | 1 | 0.097 | 0.704 | 0.762 | 0.466 | 1.066 |
| Many women hold myths and misconceptions about potential side effects and negative outcomes of contraceptives | 1 | 0.293 | 0.808 | 0.689 | 0.543 | 1.203 |

COR=Crude Odds Ratio, AOR=Adjusted Odds Ratio

Table 6:
Health workers behaviour as a predictor of uptake of contraceptive

| Health workers behaviour | df | Sig. | COR | AOR | 95% CI | |
|---|----|-------|-------|-------|--------|-------|
| | | | | | Lower | Upper |
| Whenever I am in the clinic the health workers-imposed age restrictions and consent requirements on me | 1 | 0.048 | 0.623 | 0.794 | 0.390 | 0.995 |
| The services of health providers are not friendly | 1 | 0.000 | 3.126 | 1.744 | 1.866 | 5.237 |
| The health workers always refuse to explain the method of use any contraception | 1 | 0.000 | 0.479 | 0.689 | 0.317 | 0.724 |
| The health providers enforced a variety of restrictions like age and parity to impede access to services with the belief that the injectable contraceptives cause permanent infertility | 1 | 0.035 | 1.654 | 1.385 | 1.036 | 2.642 |
| The nurse-midwives providing sexual & reproductive health care recommend abstinence from sex as their first option to the unmarried adolescent boys & girls they ask for contraceptives rather than offer them contraceptives | 1 | 0.131 | 0.671 | 0.696 | 0.400 | 1.126 |
| The nurses who worked in a family planning unit generally stigmatized adolescent sex | 1 | 0.756 | 0.923 | 0.903 | 0.558 | 1.528 |
| The nurses always felt very uncomfortable giving contraception to adolescent girls | 1 | 0.772 | 0.919 | 0.920 | 0.520 | 1.625 |
| The nurses working in the family planning clinic often tried to even influence the adolescents who came for contraception not to have sex | 1 | 0.351 | 1.297 | 0.929 | 0.751 | 2.241 |
| The nurses sought from adolescent parental permission before contraceptive services were provided | 1 | 0.003 | 1.547 | 0.574 | 0.368 | 0.812 |
| The service providers believe that contraceptive services to adolescents promote promiscuity | 1 | 0.884 | 1.042 | 1.018 | 0.596 | 1.825 |
| The service providers believed that restriction can help in protecting both the client and the society | 1 | 0.197 | 0.752 | 0.652 | 0.488 | 1.159 |
| Young people are inhibited from procuring contraceptives because of the shame associated with it | 1 | 0.389 | 1.245 | 1.146 | 0.757 | 2.048 |

COR=Crude Odds Ratio, AOR=Adjusted Odds Ratio

Cultural belief as a perceived barrier influencing the uptake of contraceptives among female undergraduates:

Multiple logistic regression of cultural belief as a factor influencing uptake of contraceptive shows that respondents are less likely to uptake contraceptives if they believe it is wrong to use contraceptives before marriage (AOR=0.684, 95% CI=0.451-1.036) and if their parents are against contraceptive use (AOR=0.773, 95% CI=0.704-1.785) (Table 5).

Health workers' behaviour as a factor affecting contraceptives uptake among undergraduates:

Multiple logistic regression of health workers' behaviour as factors influencing the uptake of contraceptive shows that the respondents are less likely to uptake contraceptive if age restrictions and consent is required by health workers before they can grant access to contraceptives (AOR=0.794, 95% CI=0.390-0.995) and if health workers refuse to explain the usefulness of the contraceptive method (AOR=0.689, 95% CI=0.317-0.724) (Table 6).

Uptake of contraceptives by the respondents: More than one-third 106(34.80%) of the respondents affirmed to have had sexual intercourse, out of which 77(72.64%) agreed to have used contraceptives (Table 7).

DISCUSSION

The study revealed that 90.80% of the respondents demonstrated good knowledge of contraceptives. This finding is in line with previous studies in Nigeria and outside Nigeria (Duru et al., 2015; Oguntona et al., 2013; Kongnyuy et al., 2007; Njoroge, 2016). Consequently, the study showed knowledge as a predictor of uptake of contraceptive as respondents with good knowledge are more likely to uptake contraceptives than respondents with poor knowledge of contraceptives.

Table 7:
Sexual activities and uptake of contraceptives

| Variable | Frequency | Percentage |
|------------------------------------|-----------|------------|
| Have had sexual intercourse | | |
| Yes | 106 | 34.80 |
| No | 199 | 65.20 |
| Have utilised contraceptive | N=106 | |
| Yes | 77 | 72.64 |
| No | 29 | 27.36 |

Furthermore, it has been postulated that having awareness of contraception increases an adolescent's chances of using contraceptives (MOH, 2007). This was further corroborated by previous studies which argued that education has played some vital roles among females in their knowledge of contraceptive use as contraceptive use is more prevalent among educated and sexually active youths in Nigeria (Adibe et al., 2010; Osemwenkha, 2004).

Furthermore, the study revealed that out of the more than one third sexually active respondents, about one fourth have used contraceptives giving a contraceptive use rate of 72.10%. This is similar to the findings of a previous study (Adibe et al.,

2010). But however, contrary to findings in Kenya where 73% of currently sexually active single women aged 15-19 years reported not using any contraceptive method (Kenya Demographic and Health Survey, 2009). In addition, condom was the preferred method of contraceptive than other methods. This was also similar to previous studies (Adibe et al., 2010; Asekun-Olarinmoye et al., 2013).

Attitudinal factors that influenced uptake of contraceptives among the respondents show that the respondents will likely not use contraceptives if they believe it has a side effect. This finding is in line with previous studies where the respondents are either less likely to use or change to another method if they know of any side effect (Adibe et al., 2010; Kenya Demographic and Health Survey, 2009; Ross and Agwanda, 2012). This shows that fear of side effects remains a barrier to contraceptive uptake among young adults. Also, the respondents were less likely to use contraceptives if they have the notion that it can only be used by married people. Contraceptive is not made for married people alone but both married and unmarried females and males who desire child spacing and want to prevent unwanted pregnancy and Sexually Transmitted Infections (Adibe et al., 2010). Therefore youth reproductive health counsellors must not stigmatize young people by seeing them as too young to talk about contraceptive but instead should encourage them to be open to talking about contraceptive use. Another barrier that can prevent young people from the uptake of contraceptive is if they are ashamed to use a contraceptive. Previous studies have reported shame as an important factor in preventing uptake of contraceptives by youths (Charles, 2004; Ochako et al., 2015). In addition, another barrier to contraceptive use is when youths do not trust the effectiveness of contraceptives. This is similar to a previous study in Kenya (Ochako et al., 2015).

Accessibility is a factor that can stimulate the uptake of contraceptives. According to the findings of the study, the respondents are less likely to uptake contraceptive due to time factor and waiting time in the clinic. This is similar to previous studies which reported unavailability, unaffordability, poor attitude from health caregivers and lack of convenient time as barriers to contraceptive uptake (Zaggi, 2014; Godia et al., 2014).

According to the World Health Organisation, (2010), cultural attitudes towards sexuality vary widely and may obstruct an adolescents understanding of contraception and the ability to uptake contraception. The study showed parents and partners disapproval, lack of family support are major barriers to contraceptive uptake. This is in line with previous studies (Ochako et al., 2015; Nsubuga et al., 2016; McBurney and Vlrte, 2007). This shows that parents, peers, partners, and family have a strong influence on adolescent's uptake of contraceptives. This group should be targeted by health promotion intervention programs on contraceptive uptake.

The study highlighted some health workers' behaviour that can hinder the uptake of contraceptives by the respondents. This finding is in line with previous studies which reported health workers to believe that providing contraceptives to unmarried adolescents promotes sexual promiscuity, health care providers choosing to dissuade sexually active adolescents from contraceptive use and healthcare providers

encouraging youths to abstain from sex anytime they go for contraceptives (Ezihe, 2014; Wood and Jewkes, 2006; Nalwadda et al., 2011).

The present study includes a limitation of using only one tertiary institution in the Southern region of Nigeria. So, the findings obtained in our study cannot be generalized to other regions of the country which could vary because of cultural differences.

In conclusion, the study is on 'perceived barriers to contraceptive uptake among female undergraduate in the University of Benin, Benin City, Edo State'. The study showed some of the respondents were sexually active (34.80%) and the majority have used contraceptive (72.64%). This could be attributed to the high awareness and knowledge of contraceptives among the respondents as knowledge was shown by the study to be a factor that influences the uptake of contraceptives. Furthermore, the study highlighted fear of side effects, long waiting time at the clinic; length of time in securing an appointment to reproductive services, partners' disapproval of the use of contraceptives, stigmatization of adolescent sex by nurses among others as factors that can influence uptake of contraceptives. Thus, as the study has shown these undergraduates engage in sexual activities which could predispose them to unplanned pregnancies, STI/HIV, and abortion which could lead to complications.

Based on the findings of the study, it is recommended that reproductive health programs targeting adolescents and youths could specifically target each of these factors as part of their program in order to increase contraceptive use among female undergraduates. In addition, more awareness campaigns should be carried out targeting undergraduate students on the importance of contraceptives in preventing unplanned pregnancy and sexually transmitted diseases as this could encourage them to uptake contraceptives.

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