Knowledge and Use of Contraceptives among Female Adolescents in Selected Senior Secondary Schools in Ife Central Local Government of Osun State

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Abstract

The study investigated the knowledge and use of contraceptives among female adolescents in selected secondary schools in Ife Central Local Government Area of Osun State. The study surveyed 397 female adolescent students using purposive sampling technique. An adapted instrument was used to elicit information from the respondents. Five research questions were asked and answered while two hypotheses were tested and verified at 0.05 level of significance. The results among others showed that 244 (61.5%) of females adolescents had adequate knowledge of contraceptives in the study area. The results also showed that the factors that are enhancing the use of contraceptive among secondary school adolescents are proper sex education (77.8%) outreach service (71.5%) and proper orientation (69.5%). In addition, the findings revealed that there was no significant difference in the knowledge of contraceptive of female adolescents of different age categories (F=2.394; p>0.05). The study therefore recommended among others, that female adolescent should be properly educated on sex education.

Keywords: Contraceptives; Female adolescents; Sexual and reproductive health

Introduction

Adolescent females aged 15-19 account for over 14 million births each year, 91 percent of these in low and middle-income countries. Six million adolescent pregnancies are unintended and occur in the context of low contraceptive prevalence [1,2] reported that one of the challenges facing family planning programs worldwide is the birth control knowledge and practices amongst adolescents when exposed to the risk of pregnancy. According to United Nations Population Fund, family planning/contraceptive services are defined as the right of all couples and individual to decide freely and responsible the number and spacing of their children and to have the information and means to do so [3].

Less than one third of currently married adolescent females in low and middle income countries who want to avoid pregnancy are using a modern method of contraception, and more than 60 percent would like to avoid or delay pregnancy but are not able to do so [4]. The World Health Organization defines adolescents as people ranging from 10 to 19 years of age when young individuals transit into adulthood [5,6]. Curtis defines adolescence as years between the onset of puberty and establishment of social independence. Sexual and reproductive health is an important issue to every stakeholder in the global health sector particularly with regard to the youth and adolescents 13% of all maternal deaths [7]. The cause of this degenerating health condition of adolescent girls, according to Ugwu is lack of knowledge and access to contraception. Consequently, Tayo et al. suggested active and intensive promotion of sexuality education, and contraceptive knowledge and use among the youth in the Sub-Saharan Africa as a way of addressing this anomaly [8].

In Nigeria, there is a persistent reluctance by health workers to provide adolescents with contraceptives and also of the adolescents to seek contraceptive services [9]. This is based largely on the premise that the culture does not support pre-marital sexual activity and that providing the services will promote promiscuity. However, several studies have revealed that a large number of adolescents are experiencing early sexual debut, some as early as 13 years. Furthermore, mortality resulting from termination of unwanted pregnancies is on the increase among Nigerian adolescents [8].

Contraception is one of the essential elements of youth reproductive health and it allows youth to determine the timing and the number of their children and empowers them to manage their lives with respect and dignity added that adolescent reproductive health is increasingly being recognized as one of the major determinant of human development. Among the essential development concern, contraception or prevention of unwanted early pregnancies is considered to have a significant potential in improving the status of youth. Knowledge and use of contraceptives among youth showed very wide variation among region of sub-Saharan Africa than other regions of the world. In confirmation of this, study among youth aged 15-19 in Ghana, revealed that 85% knows at least one method of contraception while only 17% of sexually active youth use contraceptives, the rate for any method was 27%. Similar study in Nigeria has revealed that over 60% of urban youth have heard of at least one method but only 4.7% of active youth practice contraceptives of which 3.5% of them practice modern methods. Another study in Kenya indicate that 90% of Kenyan high school students knew at least one method, 49% of male and 43% of female student ever used contraceptives. The same study also revealed an increase in contraceptive use from 25% versus 28% during the first to 31% versus 29% during the last intercourse among male and female students respectively. However, only 11% of ever users considered themselves as frequent users. Knowledge of contraceptive
method among youth in most countries of Latin America, the Caribbean, Asia, Near east and North Africa exceed 90%. According to Hagan et al. various studies conducted in Ghana show that the awareness of young people about contraceptives and where to obtain them is high [10]. Results from the 1998 Ghana Youth Reproductive Health Survey (GYRHS) indicated that 76% of female and 88% of males all aged between 15 and 19 years were aware of at least one modern family planning method [11]. The condom was the most reported method known by 77% and 66% of males and females respectively. However, adolescents’ knowledge of some specific methods is superficial for example, data from the 1998 GYRHS show that 49% of females and 25% of males all aged between 12 and 24 years knew of the pill [10].

Contraceptive use has increased worldwide but in Nigeria, especially among the adolescents, there seem to be a persistent gap between high sexual activity and contraceptive use in the presence of high contraceptive awareness [12]. Knowledge of contraceptive method is the first step toward accepting a method. In all regions, knowledge of any modern method of contraception is nearly universal among both young women and men. However, a considerable proportion of youth in Sub-Saharan Africa do not know of a modern method; Chad is the most notable examples only 49% of this country’s young women and 72% of its young men know of a modern method. Ugwu further observed that other countries with low levels of knowledge of any contraceptive method include Madagascar, Mali and Nigeria. Overall, knowledge of any method is somewhat higher among young men than young women and knowledge levels are generally higher in countries outside Sub-Saharan Africa [3].

Factors that contribute to lack of contraceptive use or inconsistent use include issues related to adolescent development, such as reluctance to acknowledge one's sexual activity, belief that one is immune from the problems or consequences surrounding sexual intercourse or pregnancy, and denial of the possibility of pregnancy [13-15]. Other important factors are lack of education and misconceptions regarding use or appropriateness of contraception. However, an adolescent’s level of knowledge about how to use contraception effectively does not necessarily correlate with consistent use. Adolescents may not use or may delay use of contraception for several reasons including lack of parental monitoring, fear that their parents will find out, ambivalence, and the perception that birth control is dangerous or causes unwanted adverse effects such as weight gain. This study sought to assess knowledge and use of contraceptives among adolescents in selected secondary schools in Ife central local government.

Objectives

- Specific objectives of this study are to:
  - Investigate the knowledge of contraceptives of adolescents in selected secondary schools in Ife Central Local Government;
  - Determine the usage level of Contraceptives among the secondary school adolescents;
  - Identify factors enhancing the use of contraceptives among secondary school adolescents;
  - Investigate adolescents’ sources of information on use of contraceptives; and
  - Examine barriers to the accessibility of contraceptive services to secondary school adolescents.

Research questions

- What is the level of contraceptives knowledge of adolescents in selected secondary schools in Ife Central Local Government?
- What is the usage level of contraceptives among the secondary school adolescents?
- What are the factors enhancing use of contraceptives among adolescents in these secondary schools?
- What are the sources of information on contraceptives among these adolescents?
- What are the barriers to the accessibility of contraceptive to the adolescents?

Hypotheses

- There is no significant difference in the knowledge of contraceptives of adolescents in government and private owned secondary schools.
- There is no significant difference in knowledge of contraceptives and age categories of adolescents.

Methodology

The study employed survey research design. The population consisted of adolescents from selected secondary schools in Ife central Local Government. Purposive sampling technique was used to select the local government of study based on easy accessibility on the part of the researcher.

Then 30% of all the secondary schools was calculated as seen: 31*30/100= 9.3, 31 is the total number of registered secondary schools in Ife Central Local Government according to Local Inspector of Education, Ministry of education Ife Central Local Government Lagere Ile-Ife, so 10 schools were used for the study. Again purposive sampling technique was used to choose the classes (SS2 and SS3) considering that adolescents in higher classes are more likely to be sexually active than those in lower classes.

The instrument for the study was adapted from online pull of standard questionnaires on "Illustrative Questionnaire for interview-Surveys with Young People" by John Cleland. Reliability test was carried out with a pilot study to complement the assessment by experts in the field of study. Result of the pilot showed a reliability coefficient of 0.63 (internal consistency approach was used in determining the coefficient).

The instrument was given face-to-face to each participant with the use of trained assistants. Data generated from the study was sorted out and analyzed using Statistical Package for Social Sciences (SPSS) software for both descriptive and statistical analysis. Descriptive statistics (percentage and frequencies) was then after used to present the summary tables relevant variables. Bar and pie charts was equally used to present part of the results.

Results

Research question 1: What is the level of contraceptives knowledge of adolescents in selected secondary schools in Ife Central Local Government?

In order to answer this research question, 11 items in section B of the instrument were scored such that a correct response was allotted 1 and a wrong response 0. The responses were then summed up to build
a measure of knowledge. The minimum and maximum obtainable were 1 and 11 respectively. Scores from 1-4 were adjudged as Low, scores of 5-7 Partial while scores of 8-11 were adjudged as Adequate knowledge of contraceptive. These categories were then subjected to descriptive analysis of frequency and percentage, the result is presented in Table 1 and figure 1.

Table 1 and Figure 1 show the level of contraceptives knowledge of female adolescents in selected secondary schools in Ife Central Local Government.

| Level of Contraceptives Knowledge | Frequency (f) | Percentage (%) |
|----------------------------------|--------------|----------------|
| Low                              | 19           | 4.8            |
| Partial                          | 134          | 33.8           |
| Adequate                         | 244          | 61.5           |
| Total                            | 397          | 100            |

Table 1: Level of contraceptives knowledge of adolescents in selected secondary schools in Ife central local government.

It is shown that out of 397 (100.0%) of female adolescents that participated in this study, 19 (4.8%) had low knowledge of contraceptives, 134 (33.8%) had partial knowledge while 244 (61.5%) had adequate knowledge of contraceptives use. Indication is shown from this result that more than half of female adolescents in secondary schools in Ife Central Local Government had adequate knowledge of contraceptives.

Table 2 above depicts adolescents’ contraceptive use at first intercourse and also the type of contraceptive used. It is seen on the result that majority of participant (51.1%) did not use any form of contraceptive at first intercourse. Also condom was reported as most commonly use method by participants in this study.

| Items                                      | Response | Frequency | Percentage % |
|--------------------------------------------|----------|-----------|--------------|
| On the first time did you or boyfriend do anything to avoid a pregnancy? | Yes      | 165       | 41.6         |
|                                            | No       | 203       | 51.1         |
|                                            | No Response | 29   | 7.3         |
|                                            | Total    | 397       | 100          |
|                                            | Condom   | 89        | 53.9         |
|                                            | Pill     | 11        | 6.7          |
|                                            | Withdraw | 23        | 13.9         |
|                                            | Safe period | 12 | 7.3         |
|                                            | Injection | 12       | 7.3          |
|                                            | Others   | 6         | 3.6          |
|                                            | No Response | 12 | 7.3         |
|                                            | Total    | 165       | 100          |

Table 2: Adolescents use of contraceptives at first intercourse.

**Research Question 2:** What is the usage level of contraceptives among the secondary school adolescents?

Table 3 and Figure 2 show the usage level of contraceptives among the secondary school female adolescents. As shown in the table and figure above, condoms seem to be the most commonly use among female adolescents. Condoms have the highest value of Relative Significance Index (RSI) of 0.43 and subsequently ranked first among others. In addition, 266 (67.0%) of the female never use it, 43 (10.8%) rarely used it, 27 (6.8%) occasionally use it while 61 (15.4%) of the female adolescents used it every time. Safe period is ranked second with RSI value of 0.40. While 270 (68.0%) of the female adolescents never use it, 49 (12.3%) rarely, 43 (10.8%) occasionally and 35 (8.8%) use it every time. Withdrawal method is ranked third with RSI value of 0.39. It is also shown that 273 (68.8%) of the female adolescents never use it, 57 (14.4%) rarely, 35 (8.8%) occasionally and 32 (8.1%) use it every time. Closely followed is Emergency Contraceptives with respective RSI value and rank of 0.37 and fourth. While 301 (75.8%) of the female adolescents never use it, 36 (9.1%) rarely, 25 (6.3%) occasionally and 35 (8.8%) use it every time. Injectable seems to be the least use among the female adolescents with respective least RSI value and rank of 0.36 and fifth. It was reported that 294 (74.1%) of the...
female adolescents never use it, 50 (12.6%) rarely, 27 (6.8%) occasionally and 26 (6.5%) use it every time. Table 4 and Figure 3 show factors enhancing the use of contraceptives among the secondary school female adolescents.

| Contraceptives  | Never | Rarely | Occasionally | Every time | RSI | Rank |
|-----------------|-------|--------|--------------|------------|-----|------|
|                 | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage | RSI | Rank |
| Condoms         | 266 | 67 | 43 | 10.8 | 27 | 8.8 | 61 | 15.4 | 0.43 | 1 |
| Withdrawal      | 273 | 68.8 | 57 | 14.4 | 35 | 8.8 | 32 | 8.1 | 0.39 | 3 |
| Safe period     | 270 | 68 | 49 | 12.3 | 43 | 10.8 | 35 | 8.8 | 0.4 | 2 |
| Injectable       | 294 | 74.1 | 50 | 12.6 | 27 | 6.8 | 26 | 6.5 | 0.36 | 5 |
| Emergency       | 301 | 75.8 | 36 | 9.1 | 25 | 6.3 | 35 | 8.8 | 0.37 | 4 |

Table 3: Usage level of contraceptives among the secondary school female adolescents.

It is shown that while 284 (71.5%) of the female adolescents considered outreach services as enhancing factor for the use of contraceptives among the secondary school female adolescents, 113 (28.5%) shared contrary view. Also, while 276 (69.5%) and 309 (77.8%) of the female adolescents respectively see proper orientation and proper sex education as enhancing factors, 121 (30.5%) and 88 (22.2%) of them disagreed. Societal acceptance had 260 (65.5%) of female adolescents who regard it as enhancing factor for the use of contraceptives among the secondary school female adolescents while 137 (34.5%) disagreed.

**Research Question 3:** What are the factors enhancing the use of contraceptives among the secondary school adolescents?

| Factors                     | Yes | No   |
|-----------------------------|-----|------|
|                             | Frequency | Percentage | Frequency | Percentage |
| Outreach Services           | 284 | 71.5 | 113 | 28.5 |
| Proper orientation          | 276 | 69.5 | 121 | 30.5 |
| Proper sex education        | 309 | 77.8 | 88 | 22.2 |
| Societal acceptance         | 260 | 65.5 | 137 | 34.5 |

Table 4: Factors enhancing the use of contraceptives among the secondary school adolescents.

Research Question 4: What are the adolescents’ sources of information on the use of contraceptives?

Table 5 and Figure 4 show adolescents’ sources of information on the use of contraceptives. It is shown that out of 397 (100.0%) of the female adolescents, 149 (37.5%) cited school, 32 (8.1) mentioned parents, 102 (25.7%) media, 48 (12.1%) peer, 17 (4.3%) others while 49 (12.3%) of the female adolescents declined response to this item.

| Sources       | Frequency (f) | Percentage (%) |
|---------------|---------------|----------------|
| School        | 149           | 37.5           |
| Parents       | 32            | 8.1            |
| Media         | 102           | 25.7           |
| Peer          | 48            | 12.1           |
| Others        | 17            | 4.3            |
| No Response   | 49            | 12.3           |
| Total         | 397           | 100            |

Table 5: Adolescents’ sources of information on the knowledge of contraceptives.
It is shown from this result that schools and media serve as important sources of information for female adolescents on the use of contraceptives.

**Figure 4:** Chart showing percentage of adolescents’ sources of information on the knowledge of contraceptives

**Research Question 5:** What are the barriers to the accessibility of contraceptive services to secondary school adolescents?

Table 6 and Figure 5 show identified barriers to the accessibility of contraceptive services to secondary school female adolescents. As shown in the table and figure above, out of 397 (100.0%) sampled female adolescents, 66 (16.6%) identified with distance, 57 (14.4%) with limited choice of methods, 139 (35.0%) with fear or experience of side effects, 61 (15.4%) with cultural or religious opposition, 30 (7.6%) with poor quality of available services, 21 (5.3%) cited others while 23 (5.8%) declined response.

**Research Hypotheses**

**HO1:** There is no significant difference in the knowledge of contraceptive of adolescents in government and private owned secondary schools in Ife Central Local government.

In order to test this hypothesis, scores on knowledge of contraceptive of female adolescents were subjected to a t-test of independent test using types of school ownership as differentiating variable. The result is presented in Table 4 below.

Table 7 shows the difference in the knowledge of contraceptive of adolescents in government and private owned secondary schools in Ife Central Local Government. It is shown in the table that there was significant difference in the knowledge of contraceptive of adolescents in government (M=7.95, SD=1.88) and private (M=7.54, SD=1.60); (t375=2.039), p<0.05. As shown in the table, female adolescents in the government owned secondary schools had higher mean score than their counterparts from private secondary schools. The difference in their mean scores was statistically significant at .05 level of probability. Since the p-value is less than .05 thresholds, we therefore reject the stated null hypothesis. The result therefore concludes that there was significant difference in the knowledge of contraceptive of female adolescents in government and private owned secondary schools.

HO2: There is no significant difference in the knowledge of contraceptive of female adolescents of different age categories.

In order to test this hypothesis, scores of female adolescents in the knowledge of contraceptive use were subjected to a One-Way Analysis of Variance (ANOVA). The result is presented in Table 8 below. Table 8 shows a one way between groups analysis of variance conducted to explore the difference in the knowledge of contraceptive use of female adolescents of different age categories.

**Table 6:** Barriers to the accessibility of contraceptive services to secondary school adolescents.

**Table 7:** T-test of significant difference in knowledge of contraceptive among adolescents in government and private owned secondary schools.

It can be observed that there was no statistically significant difference in the knowledge of contraceptive of female adolescents of different age categories as determined by one-way ANOVA (F (2,394) =0.250, p=0.779).

**Table 8:** One-way analysis of variance test of significant difference in the knowledge of contraceptive use of female adolescents of different age categories.

Since the p-value is greater than .05 thresholds, we therefore do not reject the stated null hypothesis. This result concludes that there was...
no significant difference in the knowledge of contraceptive of female adolescents of different age categories.

**Discussion of Findings**

Research question one and three: what is the level of contraceptives knowledge of adolescents and their sources of information?

In order to answer the research questions, questions were asked of which respondents provided their object comments. Results shows that majority (61.5%) of participants have adequate knowledge about contraceptives. Similar study carried out in Nigeria by Ahmed showed that 60% of youth have heard of at least one method of contraceptives. On this same regard, Bakele in a study in Kenya reported that 90% of Kenya high school students knew at least one method of contraceptive. On the other hand, 49% knowledge of contraceptive was reported in Chad according to Khan. The level of knowledge as reported in this study could be as result of health and sex education inculcated into secondary school curriculum as 37.5% of participants claim their schools as source of information. Also one could attribute the level of knowledge to media and peer group as 25.7% and 12.1% respectively claim these as their sources of information about contraceptives. Corroborating with this, stated that Adolescents spend more time using traditional media, such as television, and new media, such as social networking sites, than engaging in any other activity. Thus, media have the potential to shape the beliefs and behaviors of adolescents, including those about dating, sex and contraceptives.

Research question two: what is the usage level of contraceptives among female adolescents in selected senior secondary schools in the study area?

Among the adolescents that participated in this study, 41.6% reported to have used contraceptive at their first intercourse. Similar finding was seen in a study among Women aged 150-240 surveyed in Latin America and the Caribbean, showed the levels of contraceptive use at first intercourse ranging from 4% in Quito to 43% in Jamaica (WHO, 2004). According to a study conducted by Martinez, (2011) in U.S. the majority of sexually experienced teens (78% females and 85% males) used contraceptives the first time they had sex. Martinez, also reported that the use of contraceptives during first sex by females aged 15-19 has increased, from 48% in 1982 to 78% in 2006-2010 and that adolescents are apparently unlikely to use contraceptives the first time they have sex. Darroch reported that a greater proportion of U.S. women reported no contraceptive use at first intercourse 25%, in France 11%, Great Britain 21% and Sweden 22%. In this present study 51.1% reported no use of any contraceptive in their first intercourse [2]. Chhabra et al. reported no one who has used contraceptive during first intercourse in their study. Martinez, also reported that the condom is the most common contraceptive method used at first intercourse, 68% of females and 80% of males used it the first time they had sex and in 2006-2010, some 96% of sexually experienced female teens had used a condom at least once, 57% had ever used withdrawal and 56% had used the pill. Smaller proportions had used other methods and one in five sexually active female teens (20%) and one-third of sexually active male teens (34%) reported having used both the condom and a hormonal method the last time they had sex. Researcher further report that between 2006-2010, 86% female teens and 93% male teens reported to have used contraceptives at last sex. These proportions represent a marked improvement since 1995, when only 71% female teens and 82% male teens had reported using a method at last sex. Majority of participants in this study also reported condom (53.9%) as the contraceptive used during their first intercourse followed by withdrawal (13.9%) while safe period, injection and pill came up in the following percentages respectively 7.3%, 7.3% and 6.7%. finding about use of injectable (7.3%) prior first intercourse for adolescents is rather strange and no study was found to support the result so further research can be carried out in this regard. From this finding about use of contraceptives, it can be said that contraceptive use has increased worldwide but in Nigeria, especially among adolescents in the study area, there seems to be gap between high sexual activity and contraceptive use in the presence of high contraceptive awareness as supported by Chukwuma et al. Adolescents, especially those unmarried, seldom use contraception. Sexually active adolescents who have sex with a steady partner often claim that intercourse is not the result of premeditated or conscious decisions but just “happens”, so they are unlikely to be prepared with contraception [2].

Research question five: what are the barriers to the accessibility of contraceptive services to female adolescents in the selected secondary schools?

Many adolescents are unable to obtain contraception (including emergency contraceptives) to avoid unwanted pregnancy. Even those adolescent who can obtain contraceptive do not always use them correctly and consistently. According to WHO Family planning/Contraception (2015), an estimated 222 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception. Reasons include limited access to contraception, particularly among young people, poorer segments of populations, or unmarried people, limited choice of methods, fear or experience of side-effects, cultural or religious opposition. Fear of side effect (35%), distance to access contraceptives (16.6%), cultural and religious opposition (15.4%) and limited choice (14.4%) were among the reasons adolescents did not use contraceptives according to findings in this study. Also, poor quality of available services (7.6%) was reported by some of the participant while 5.3% of total participants picked others reasons.

**Test of hypotheses**

In this study, two group of schools were used, 70% government and 30% private among schools in the local government of study. So hypothesis one above was set to find the difference in their knowledge of contraceptives. However, null hypothesis was rejected with a p-value of 0.42 indicating that there is significant difference in the type of schools the adolescents attend and their knowledge on contraceptives. In all the literatures reviewed in the course of this study, no one was seen to support this point so further study could be conducted to further expatiates on it.

The second hypothesis was set to test the difference in knowledge level of adolescents and their age categories. Majority of adolescents (74.6%) that participated in the study were within the age range of 14-17 years. 18 years and above was 21.2% while 11-13 years was 3.8%. however, null hypothesis in this case was not rejected with p-value of 0.779 concluding that there is significant difference in knowledge of contraceptives among adolescents at different age categories. In support of this, Wildsmith, et al. reported there is tendency of them becoming more exposed to sources of information as they grow older.
Conclusion

Education was identified as a major tool or social instrument that can help Nigeria tackle this global problem of teenage knowledge and use of contraceptives. However, Adolescents should be given appropriate health education including education about knowledge and use of contraceptive along with the risks associated with the non-use.

Recommendations

- Programmes and workshops should be offered about communication between parents and their children about sexuality, safe sex, and contraception.
- The Department of Education should incorporate sex education into the school curriculum/syllabus.
- Education on sexuality should commence at the primary school level.
- Youth centers and/or school-based contraceptive services should be established to provide learner-friendly services and supplies.
- In-service teacher training programmes should be provided and schools should offer not only sexuality education sessions but also counseling services.
- Attitudes of contraceptive providers should not prevent nor discourage adolescents from accessing these services and supplies.
- Mass media campaigns should be promoted to curb unplanned pregnancies and promote the use of contraceptive services among learners.

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