Knowledge and Determinants of Emergency Contraception use Among Students in Tertiary Institution in Osun State, Nigeria

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ABSTRACT

Background: Emergency contraception (EC) or postcoital contraception has the potential to reduce the number of unwanted pregnancies and thus the abortion rate. Tertiary institutions’ students are a unique group with very high social interaction, but by virtue of their level of education, probably forms a group in any community, which should have an overall higher level of awareness and use of available methods of contraception, including that of EC. Aim: The aim of this study was to assess the knowledge and attitude toward EC, and as well to determine the prevalence of emergency contraceptive use among the students of tertiary institutions in Osun State, Nigeria. Subjects and Methods: A cross-sectional study using the self-administered structured questionnaire on questions relating to the socio-demographic characteristics of the students, sexual relations, knowledge of contraception in general and EC, use and determinants of EC use. Results: A total of 384 of the 400 questionnaire were returned of which male respondents were 178/384 (46.4%) while the females were 206/384 (53.6%). Two hundred and seven respondents 207/384 (53.9%) were university students, while 177/384 (46.1%) were polytechnic students. Most respondent 142/376 (37.8%) derived knowledge of EC from friends and family life education from school 186/373 (49.9%). More than half of respondents are in sexual relationships, with only 71/384 (18.5%) showing good knowledge of EC. However, use of EC was 106/384 (27.6%). Conclusion: Most tertiary institutions’ students are involved in a sexual relationship, have poor knowledge of EC and use of EC also. Formal family life education, partner approval, and previous use of EC encourage further use. There is a need for carefully designed education programs and promotion of family life education with deliberate awareness on safe sex practices, including EC in existing students’ health enlightenment programs on campuses.

KEY WORDS: Emergency contraception, family life education, Nigeria, students, tertiary institution

INTRODUCTION

Emergency contraception (EC) refers to any device or drug that is used as an emergency procedure to prevent the pregnancy after unprotected sexual intercourse.[1,2] Atentions have recently focused on the potential for EC or postcoital contraception to reduce the number of unwanted pregnancies and thus the abortion rate. It is estimated that between 30% and 50% of women presenting for terminations of pregnancy were not using contraception at the time they became pregnant. Many patients and providers are not even aware of EC which further limits its use.[3,4] Every year, unplanned pregnancies lead to at least 50 million abortions world-wide, many of them being unsafe, and subsequently resulting in approximately 80,000 maternal deaths.[5] An increase in the use of EC would reduce the number of unwanted pregnancies and the number of induced abortions.

Young people in general are sexually active and tertiary institutions’ students form a significant high-risk group in any society. The youth in this age group are most often at the beginning of exploration of their sexuality, very often free of parental guidance, under great peers influence, and often indulging in alcohol or other influential illegal substances. Tertiary institutions’ students on the other hand, by virtue

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of their level of education, probably form a group in any community, which should have an overall higher level of awareness of available methods of contraception, including that of EC. This study sought to assess the knowledge and attitude towards EC, and as well to determine the prevalence of emergency contraceptive use among students of the tertiary institutions in Osun State, Nigeria.

SUBJECTS AND METHODS

Design
This was a descriptive, cross-sectional study, using the self-administered, pre-tested, structured questionnaire. Ethical approval for the study was obtained from our institution.

Target population
Students of tertiary institutions in Osun State, Nigeria.

Study population
Students of State Polytechnic, Iree, and Obafemi Awolowo University, Ile Ife, Osun state, Nigeria.

Sample size
The sample size was determined using the Kish and Leslie formula for cross-sectional studies, assuming: 95% level of confidence, proportion of EC use of 11.8% and 5% margin of error. This gave a sample size of 150, but was increased to 400 to allow for greater representation or incomplete data.

Sample technique
The two institutions studied were selected by balloting. Respondents were recruited through a simple random technique, using lecture theaters and hostels as catchment locations. From each institution, two of each catchment location was selected by balloting.

The questionnaire (appendix), which consisted of questions relating to the socio-demographic characteristics of the student, sexual relations, general contraception knowledge, knowledge of EC, use and intention to use EC were administered to willing participants in the locations, after explaining the purpose of the study. Confidentiality was ensured by omitting names in the questionnaire.

Four hundred students of the State Polytechnic, Iree, and Obafemi Awolowo University, Ile Ife, both in Osun State, southwestern Nigeria, were recruited from both institutions.

Statistics
Data were entered and validated; statistical analysis was performed using the Statistical Package for Social Sciences version 17 software (SPSS Inc., Chicago, IL, USA). Results were presented in frequencies/percentages, cross-table analysis, and descriptive measures.

A score for knowledge of EC was obtained for each respondent by summing up the correct answers given on selected questions from the questionnaire. These included what EC is the time limit for its use, side-effects, its effectiveness in preventing the pregnancy and its safety. The maximum score possible was 9. Score of 4 or less was regarded as poor knowledge while a score of 5 and above was regarded as good knowledge.

RESULTS

A total of 384 respondents of the proposed 400 participants returned partially/fully completed questionnaire giving a 96% response rate. The proportion of male respondents was 178/384 (46.4%) while the females were 206/384 (53.6%). Two hundred and seven respondents 207/384 (53.9%) were university students while 177/384 (46.1%) were polytechnic students.

The mean (SD) age of all respondents was 23.6 (5.1) years, with range of 15-46 years. However, the mean (SD) ages for the male and female respondents were 24.0 (4.9) and 23.2 (5.3) years respectively (P=0.13; 95% confidence interval 0.23-1.83).

Majority of the respondents were Christians (71.1%;273/384) while most of them were of the Yoruba tribe (78.9%;303/384), single (87.5%;336/384) and are in stable (105/384) or casual (112/384) sexual relationship (56.5%) [Table 1].

Of the overall 384 respondents, only 373 responded to questions on family life education, of which 269/373 (72.1%) had formal family life education, the major source being schools 186/373 (49.9%), followed by seminars and home. The most common source of information about EC by

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number, n=384</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>273</td>
<td>71.1</td>
</tr>
<tr>
<td>Islam</td>
<td>104</td>
<td>27.1</td>
</tr>
<tr>
<td>Traditional</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Tribe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoruba</td>
<td>303</td>
<td>78.9</td>
</tr>
<tr>
<td>Hausa</td>
<td>21</td>
<td>5.5</td>
</tr>
<tr>
<td>Igbo</td>
<td>43</td>
<td>11.2</td>
</tr>
<tr>
<td>Others</td>
<td>17</td>
<td>4.4</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>336</td>
<td>87.5</td>
</tr>
<tr>
<td>Married</td>
<td>44</td>
<td>11.5</td>
</tr>
<tr>
<td>Widowed</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>Types of relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable sexual</td>
<td>105</td>
<td>27.3</td>
</tr>
<tr>
<td>Casual sexual</td>
<td>112</td>
<td>29.2</td>
</tr>
<tr>
<td>Never had sexual</td>
<td>167</td>
<td>43.5</td>
</tr>
</tbody>
</table>
Among the respondents, only 106/384 (27.6%) of them had used EC in the past and chemists/pharmacy, 52.7% (156/296) was the most common place where respondents obtained EC. Other sources include friends 9/296 (3.1%), partner 5/296 (1.7%), family planning clinic 55/296 (18.6%), doctors/nurse 46/296 (15.5%), others 8/296 (2.7%), and no response 17/296 (5.7%).

Impact of knowledge of EC and family life education on use of EC

Table 5 showed that knowledge of family life education positively translated to good knowledge of EC in 78% (199/255) of the respondents, in contrast to 6.8% (3/44) respondent in those without family life education. The impact of good knowledge was ably demonstrated when more than half of the respondents (66/106) with good knowledge of EC (62.3%) had used EC, in contrast to 37.7% (40/106) with poor knowledge.

Determinants of respondents’ recommendation of EC use to friends in Table 4, previous use of EC would influence recommendation to friends in 81.1% (86/106) while 34.9% (66/189) of respondents who do not use EC would still recommend its use to friends. Good knowledge of EC by the respondents positively would influence its recommendation in 78% (46/59) of respondents in that group, in contrast to 22% (13/59) of the group.

Table 3: Relationship between formal family life education, partner’s approval, previous use of EC and use of emergency contraception

Table 4: Relationship between knowledge, use of EC and its recommendation to friends

Table 5: Relationship between knowledge of EC, family life education and EC use

respondents was from friends 142/376 (37.8%), with the least being mother 15/376 (4.0%). Knowledge of EC was poor in more than 8 out of 10 [Table 2].

Partner’s approval would positively influence the use of EC in 83.3% (85/102), whereas with disapproval or indifference, 36.3% (29/80) and 24.5% (24/98) respectively would still use EC.

Determinants of respondents’ recommendation of EC use to friends in Table 4, previous use of EC would influence
DISCUSSION

The overall mean age of respondents in this study was 23.6±5.1 years, predominantly single and mostly in a sexual relationship, possibly unprotected, and with multiple sexual partners. Coupled with the absence of parental guidance, these are overwhelming risk factors for unintended pregnancy and associated problems of unsafe pregnancy termination.

It has been suggested that millions of unwanted pregnancies could be prevented if emergency contraceptives were used. World-wide, one of the biggest obstacles to the widespread use of emergency contraceptive is that many women do not know about it. A survey had shown that only 11% of all women in the United States knew the basic facts about emergency contraceptive. Even where women have heard about EC, myths and misconceptions still exist regarding it. A study in Nigeria revealed that all respondents who had terminated a pregnancy indicated that they would have used EC had they known about it. In addition, sexual, and reproductive health education is not part of the curriculum in primary and secondary schools in Nigeria.

In this study, majority of the respondents (80.3%) had poor knowledge of EC. This is not different from previous studies.

Out of all the respondents in this study, only 106/384 (27.6%) had previously used EC.

This prevalence rate from this study was slightly higher than the findings in studies conducted in Ibadan and Durban. This might be because of our studied population and higher awareness among tertiary institutions’ students in this study. However, generally speaking, good knowledge and use of emergency contraceptive were still very low at 19.7% and 27.6%, respectively.

An association was found between formal family life education and emergency contraceptive use. School was the most commonly cited source of family life education (49.9%). This is similar to findings of a study conducted in South East Scotland. However, the low percentage contribution of homes to family life education (8.8%), further reinforces a possible disconnect of parents in facing the reality related to issue of sexuality in our society. It also not very surprising, the low percentage (11%) recorded by the religious institutions since issues of sex and sexuality are deliberately avoided by them. However, it is noteworthy that more respondents were educated on family life issues in Church/Mosque than at home, possibly the manifestation of group activities within these institutions and not from the clergy.

Partner’s approval contributed significantly to emergency contraceptive use, thus advocacy on EC use must be across gender. Among women who had used emergency contraceptive before, majority of them intended using it again. This shows that emergency contraceptive use influences its re-use and previous usage influence its recommendation to friends.

There is a significant association between knowledge of EC and its recommendation to friends. Without education about EC, women are unable to make informed contraceptive choices. When there is better knowledge of its availability and advantages, better choices are made.

There was a positive association between knowledge of EC and having received formal family life education. Formal family life education contributed significantly to knowledge of EC. Although the students in this study had an overall limited knowledge and use of EC, it was however higher than that of the general public. In a study by Smith et al. in South Africa, knowledge, attitudes and use of EC among public sector primary health-care clients was investigated. Only 22.8% of the women who were interviewed had heard of EC and it was noted that younger age group and higher educational status were significant factors independently associated with knowledge.

These gaps identified in this study should lead us to a better understanding of attitude and practice of students in tertiary education institutions and enable us plan better intervention toward preventing unintended pregnancies and consequences of pregnancy terminations.

CONCLUSION

Most tertiary institutions’ students are involved in a sexual relationship, have poor knowledge of EC and use of EC. Formal family life education, partner approval, and previous use of EC encourage further use. Improved home and religious institutions contribution to family life education will further enhance knowledge and will enhance uptake of EC. Evidently, there is a need for carefully designed education programs and promotion of family life education with deliberate awareness on safe sex practices, including EC in existing students’ health enlightenment programs on campuses. Awareness programs can also be organized by non-governmental organizations and even the federal Government on the role of EC.

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APPENDIX

KNOWLEDGE AND DETERMINANTS OF EMERGENCY CONTRACEPTION USE AMONG STUDENTS IN TERTIARY INSTITUTION IN OSUN STATE, NIGERIA

Dear Respondents,

Kindly complete this questionnaire. The information supplied shall in no way be traceable to you and it remains confidential.

Thank you.

A. DEMOGRAPHIC DATA

1. Age: []

2. Sex:
   i) Male [ ]
   ii) Female [ ]

3. Level of Education:
   National Diploma Programs
   - OND 1 [ ]
   - OND 2 [ ]
   - HND 1 [ ]
   - HND 2 [ ]
   - Post-graduate [ ]

4. Religion:
   i) Islam [ ]
   ii) Christianity [ ]
   iii) Traditional [ ]
   iv) Others (please specify) [ ]

Source of Support: Nil, Conflict of Interest: None declared
6. Tribe:
i) Yoruba [ ] ii) Hausa [ ] iii) Igbo [ ] iv) Others (please specify) [ ]

7. Marital status:
i) Single [ ] ii) Married [ ] iii) Widowed [ ] iv) Divorced [ ]

8. Reproductive and sexual history:
i) Stable sexual relationship [ ] ii) Casual sexual relationship [ ] iii) Never had a sexual relationship [ ]

B. CONTRACEPTIVE KNOWLEDGE

9a. Have you heard of emergency contraception before?
i) Yes [ ] ii) No [ ]

9b. If yes, where? [Tick all options applicable to you]
i) From a pharmacist [ ] ii) General practitioner [ ] iii) Family planning clinic [ ] iv) Mother [ ] v) Books/medical journals [ ] vi) Friends [ ] vii) TV, radio, newspapers [ ] viii) Others (specify) [ ]

10. Emergency contraception is method used when one has unprotected sexual intercourse
i) Yes [ ] ii) No [ ] iii) Don’t know [ ]

11. Emergency contraception should be used within 72 h after unprotected sexual intercourse
i) Yes [ ] ii) No [ ] iii) Don’t know [ ]

12. Emergency contraception can cause:
Yes No Don't know
a. Feeling of vomiting [ ] [ ] [ ]
b. Vomiting [ ] [ ] [ ]
c. Abdominal pain [ ] [ ] [ ]

13. Emergency contraception is 98% effective in preventing pregnancy after having unprotected sexual intercourse
i) Yes [ ] ii) No [ ] iii) Don’t know [ ]

14. Emergency contraception is very safe when being used
i) Yes [ ] ii) No [ ] iii) Don’t know [ ]

C. SEXUAL AND REPRODUCTIVE HISTORY

15a. Have you had formal sex education before?
i) Yes [ ] ii) No [ ]

15b. If yes, where? (tick all options applicable to you)
i) At home [ ] ii) School [ ] iii) Church [ ] iv) Mosque [ ] v) Seminars [ ] vi) Others (please specify) [ ]

16a. Have you had sexual intercourse before?
i) Yes [ ] ii) No [ ]

16b. If yes, at what age did you first have intercourse? ____________

D. PRACTICE

17a. Did you use contraception at first sexual exposure?
i) Yes [ ] ii) No [ ]

17b. If yes, specify (tick appropriately)
i) Oral contraceptive pills [ ] ii) IUCD [ ] iii) Condoms [ ] iv) Spermicides [ ]
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v) Implants [ ]  vi) Injectables [ ]
vii) Diaphragms [ ]  viii) Withdrawal method [ ]
ix) Cervical caps [ ]  x) Safe period [ ]
xi) Others (please specify)

18a. Did your spouse use contraception at first sexual exposure?
   i) Yes [ ]  ii) No [ ]

18b. If yes, specify (tick appropriately)
   i) Oral contraceptive pills [ ]  ii) IUCD [ ]
   iii) Condoms [ ]  iv) Spermicides [ ]
v) Implants [ ]  vi) Injectables [ ]
vii) Diaphragms [ ]  viii) Withdrawal method [ ]
ix) Cervical caps [ ]  x) Safe period [ ]
xi) Others (please specify) [ ]

19a. Have you used contraception in the last 3 months?
   i) Yes [ ]  ii) No [ ]

19b. Why did you use above contraception?
   i) To prevent sexually transmitted infections including HIV/AIDS only [ ]
   ii) To prevent pregnancy only [ ]
   iii) I have been pregnant before [ ]
   iv) Reason (I) and (II) above [ ]
   v) Reason (I) and (III) above [ ]
   vi) None of the above [ ]
   vii) Other reasons (specify) [ ]

20a. Has your spouse used contraception in the last 3 months?
   i) Yes [ ]  ii) No [ ]

20b. Why did your spouse use above contraception?
   i) To prevent sexually transmitted infections including HIV/AIDS only [ ]
   ii) To prevent pregnancy only [ ]
   iii) I have been pregnant before [ ]
   iv) Reason (I) and (II) above [ ]
   v) Reason (I) and (III) above [ ]
   vi) None of the above [ ]
   vii) Other reasons (specify) [ ]

21a. Do you use more than 1 method of contraception at a time?
   i) Yes [ ]  ii) No [ ]

21b. If yes, specify
   ________________________________
   ________________________________

22. How many times have you used emergency contraception?
   i) Once [ ]  iv) 4 or more times [ ]
   ii) Twice [ ]  v) None at all [ ]
   iii) Thrice [ ]

23. Where can you obtain the emergency contraceptive?
   i) Chemists/pharmacy shops [ ]  ii) Family planning clinics [ ]
   iii) Friends [ ]  iv) Doctors/nurses [ ]
v) Partner [ ]  vi) Others (specify) [ ]

24. Does your partner approves further use of emergency contraceptive?
   i) Approves [ ]  ii) Disapproves [ ]  iii) Indifferent [ ]

25. What problem did you encounter while using the contraceptive? (tick appropriately)
   i) Difficulty in use [ ]  ii) Pain [ ]
   iii) Lack of sexual satisfaction [ ]  iv) Skin irritation [ ]
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26. Would you use emergency contraceptive again?
   i) Yes  [ ]       ii) No  [ ]

27. Would you recommend emergency contraception to your friends?
   i) Yes  [ ]       ii) No  [ ]

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v) Expensive  [ ]
   vi) Got pregnant following its use  [ ]
   vii) Others (please specify)  [ ]
   viii) Break/slip of condom  [ ]