

Emergency Contraceptive Use among Female Undergraduate Students at the University of Calabar, Calabar, Nigeria

Francis Ayang, Ekok¹ Antor Odu Ndep^{2*} Anthonia Adindu²

1.General Out-Patient Department, General Hospital, Calabar, Cross River State, Nigeria

2.Department of Public Health, Faculty of Allied Medical Sciences, University of Calabar, Calabar, Nigeria

Abstract

About 42 million abortions take place annually worldwide with almost 20 million of them unsafe and responsible for 70,000 maternal deaths. Young undergraduate women are especially vulnerable with risky sexual behaviours which lead to unwanted pregnancies, abortions and sexually transmitted infections including HIV/AIDS. Cross River State of which Calabar is the capital, has one of the highest HIV prevalence (7.1%) in Nigeria. The purpose of this study was to determine the knowledge and practice of emergency contraception by female undergraduate students of the University of Calabar. A cross sectional descriptive survey design was used to study 400 full time fourth year female undergraduate students randomly selected from 30 departments at University of Calabar. A semi-structured self-administered questionnaire was used for data collection. Data were analysed using statistical packages for the social sciences version 16.0. The research protocol was approved by the Ethical Review Committee of the Cross River State Ministry of Health. Most of the respondents (69.9%) knew what emergency contraceptive pills (ECPs) were used for, but specific knowledge on timing (51.7%) and dosage (39.1%) were lower. With almost 70% sexually active, single, young people, condom use was 59.8% and ECP use was very low (31%). The commonest reasons for ECP non-use were lack of awareness (42%) and fear of side effects (34.2%). Reproductive health education including ECP awareness and HIV/AIDS prevention should be part of the general studies course. Peer-to-peer health education should be encouraged at the University Medical Center.

Keywords: Emergency contraception, abortions, reproductive health, peer-to-peer communication, client-centered

1. Introduction

The health of young people especially women is important for the development of any nation. Worldwide it has been observed that this category of people begin sexual activity earlier in life with differences among many countries and religion. The risk related to sexual activities contributes to poor reproductive health outcomes such as unplanned and unwanted pregnancies (Awoleke, Adanikin, Awoleke, & Odanye, 2015).

According to Awoleke et al, (2015), it is estimated that over 60% of young people undergo induced abortions annually in Nigeria. These mostly unsafe practices are often associated with genital infections and other forms of morbidity that can sometimes lead to death (Awoleke et al., 2015; WHO, 2011). Nigeria's maternal mortality rate is estimated at 545 deaths per 100,000 live births and some researchers, classified issues linked with increased maternal mortality in developing countries to include inadequate delivery system for contraception needed to prevent pregnancy (Okonofua, Omo-Aghoja, Hammel, & Osazee, 2009) as well as high prevalence of HIV/AIDS and clinical factors such as puerperal sepsis and malaria (Ndep, 2014; NDHS, 2013).

Emergency contraception (EC) is the contraception administered to a woman after unprotected sexual intercourse. In the past it was referred to as post coital contraception or morning-after pills. EC is meant for occasional use only and not as a regular contraception (Aziken, Okonta, & Ande, 2003; WHO, 2011). It is administered to women who had unprotected sexual intercourse either voluntarily or was raped when she was not on any form of contraception. It is also given when a woman on regular contraception had two or more consecutive missed oral pills or failure in a given method such as coitus interruptus or failure in a barrier method as the case of slippage or tear of a condom (Hoque, Ntsipe, & Mokgatle-Nthabu, 2013).

The general objective of this study was to determine the knowledge and practice of Emergency Contraception by full time fourth year female undergraduate students of the University of Calabar, residing within and outside the campus. The specific objectives were to describe the level of knowledge and sources of information on emergency contraception; determine the usage of emergency contraception among female undergraduates; determine the sources and availability of emergency contraception and describe the factors that impede the use of emergency contraception pills by female undergraduates.

2. Methods

A purposive sampling technique was used to select 400 out of a total of 1012 fourth year full time undergraduate students in selected departments at the University of Calabar. Respondents were informed about the purpose of the study and made aware that their participation was voluntary and that their responses will be treated confidentially and that their anonymity will be maintained during the reporting of findings of the study. A self-

administered semi structured questionnaire was administered to those who gave verbal informed consent to participate in the study. The study protocol was approved by the Ethical Clearance Committee of the Cross River State Ministry of Health. Data entry and analysis was done using the Statistical Package for Social Sciences Software (SPSS 16.0, 2010).

3. Results

Out of 400 questionnaires distributed 389 were completed and returned giving a response rate of 97.25%. Result showed that majority 276 (71%) were between 20 – 24 years, 379 (97.4%) were Christian, 346 (88.9%) were single and 287 (73.8%) lived off-campus (Table 1). On knowledge about ECP, 277 (71.2%) had heard of ECPs, and 272 (69.9%) said ECPs were used to prevent pregnancy, 12 (3.1%) said it was used to cause abortion, and 8 (2.1%) said it was used to prevent sexually transmitted disease. Two hundred and ninety six 296 (76.1%) said ECP can lead to infertility, 244(62%) said ECPs encourage promiscuity, 76% said ECPs could cause infertility and only 147 (37.8%) felt ECPs were safe for the user (Figure 1).

Majority of the respondents 185 (47.6%) identified postinor as ECP, 27(6.9%) identified menstrogen as ECP and 14 (3.6%) identified pregnon as ECP. On timing, 201 (51.7%) identified 72 hours as the accepted time to take ECPs, and 156 (40.1%) did not know. Fifty two (13.4%) and 100 (25.7%) correctly identified one tablet of 1.5mg and two tablets of 0.75mg respectively as recommended dose of ECP, while 223 (57.3%) did not know. On source of ECP information, many respondents, 135 (34.7%) got information from friends and 105 (27.0%) from health personnel (Table 2).

Majority of respondents 269 (69.2%) admitted being currently sexually active, out of these 224 (83.3%) used some form of contraceptive. Of the 269 who were currently sexually active, 161(59.8%) used condom, 9 (2.3%) used injectables, while 26 (6.7%) used withdrawal method. Eighty seven (22.4%) had ever been pregnant, out of these, 40 (46%) delivered a baby, 35 (40.2%) had abortion, and 12 (13.8%) had a miscarriage. Of the 389 respondents in this study, 23 (5.9%) had had an abortion once while 34 (8.7%) had had an abortion more than once. Only 123 (31.6%) had ever used ECP. Out of 123 that had ever used ECPs, 97 (78.9%) used it after their most recent intercourse, of these, 79 (80.6%) used Postinor as the ECP. Of those who recently used ECPs, 93(95.9%) got the pills from a pharmacy/patent medicine vendor and only 4(3.3%) got them from the University Medical Center. Only 45.5% of those who recently used ECPs said they received counseling prior to using the drugs (Table 3).

Table 1: Respondents' socio-demographic characteristics (n=389)

Characteristics	n (%)
Age (years)	
15 – 19	33 (8.5)
20 – 24	276 (71.0)
25 – 29	72 (18.8)
30 – Above	7 (1.8)
Religion	
Christianity	379 (97.4)
Islam	3 (0.8)
Traditional	3 (0.8)
Others	4 (1.0)
Marital Status	
Married	36 (9.3)
Single	346 (88.9)
Divorce	1 (0.3)
Living Together	6 (1.5)
Residence	
On-campus Hostel	76 (19.5)
On-campus Private Residence	26 (6.7)
Off Campus	287 (73.8)

Table 2: Sexual activity, ECP use, pregnancy and pregnancy outcomes

Item	Frequency n (%)
Current Sexual activity	
Sexually active	269 (69.2)
Not sexually active	111(28.5)
No response	9 (2.3)
Type of Contraception used during last sexual intercourse by sexually active respondents (n= 269)	
Condom	161(59.8)
Injectables	9 (3.4)
Daily Pills	15 (5.6)
Natural Method	13 (4.8)
Withdrawal	26 (9.7)
None	19 (7.1)
No Response	26 (9.6)
ECP use after most recent sexual intercourse (n=123)	
Used ECP	97 (78.9)
Did not use ECP	26 (21.1)
Respondents' pregnancy status (n=389)	
Ever been pregnant	87 (22.4)
Never been pregnant	302 (77.6)
Respondents' pregnancy outcomes (n=87)	
Delivered baby	40 (46)
Had an abortion	35 (40.2)
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Among the 226 respondents who had never used ECP, 112(42.1%) cited lack of awareness, 91(34.2%) cited fear of side effects and 39(14.7%) said it was against their religion. When the sexually active participants (n=269) were asked if they will use ECPs in future, 198 (50.9%) said they will use ECP after unprotected sex while 162 (41.6%) said they will not (Figure 1).

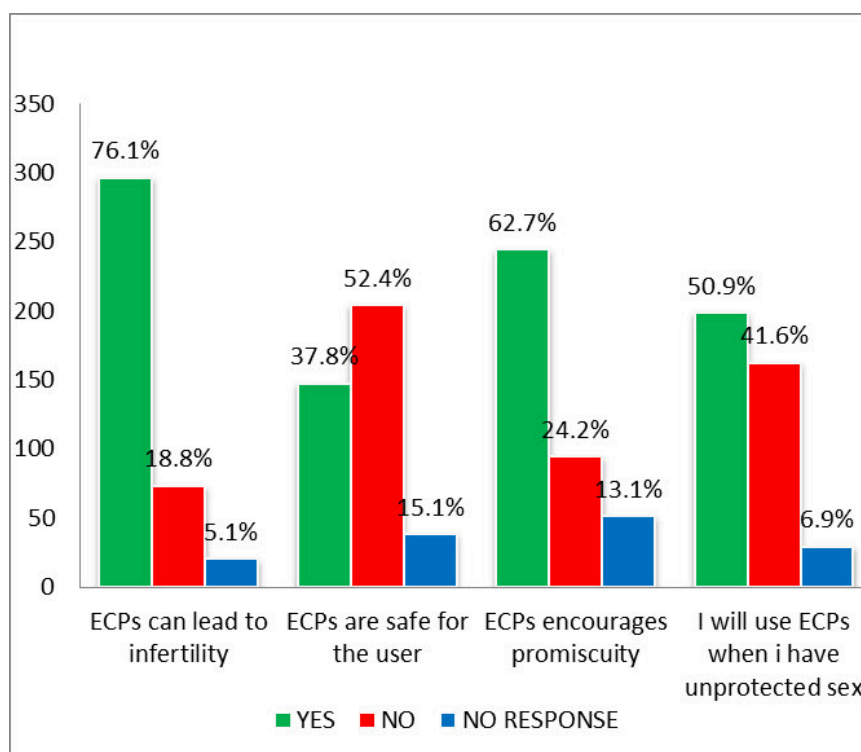


Figure 1: Students perceptions about effects of Emergency Contraception Pills on users.

4. Discussion

On knowledge of emergency contraceptive pills (ECPs), 272 (69.9%) knew that ECPs were used to prevent pregnancy after unprotected sexual intercourse. This level of awareness is higher than the level found among university students in Lagos, which was 26.7% (Wright, Fabamwo, & Akinola, 2014) and that of students of tertiary institutions in Osun State which was found to be 18.5%,(Adeniji, Tijani, & Owonikoko, 2013). It was however consistent with findings from Imo State University where 85.1% reported being aware of ECPs (Ojiyi et al., 2014).

One hundred and eighty five (47.6%) and 14 (3.6%) correctly identified Postinor-2 as ECP and 78.9% of those who had ever used ECPs (n=97), used Postinor-2 after their most recent sexual intercourse. This is consistent with the 70.8% Postinor-2 use in Imo State University (Ojiyi et al., 2014), and 53.8% knew the correct 72-120hrs recommended maximum time for ECPs to be effective. Postinor-2 was the most widely used ECPs 79(64.2%), followed by pregnon, 15 (12.2%) and others 3 (2.4) %. Knowledge on timing was higher than the 11.8% obtained in a similar study in South Africa (Roberts, Moodley, & Esterhuizen, 2004) but lower than 73% found among students in Ethiopia (Kebede, 2006).

Knowledge about dosage was poor as only 39.1% knew the correct dose of either one tablet of 1.5mg or two tablets of 0.75mg. Timing and dosage are critical to the effectiveness of ECPs. ECPs were thought to be effective when taken within 72hrs, however current studies showed that they are still active within 120hrs. The poor knowledge on timing and dosage could be attributed to the fact that majority of them got their information from informal sources which is in support of the findings in a Cameroonian study which noted that informal sources are associated with misinformation whereas medical informational sources are associated with better and factual knowledge(Kongnyuy et al., 2007).

In this study, many (34.7%) of the students got information about ECPs from friends and (27.0%) got theirs from health personnel. This is in line with the 55.7% found in a non-residential tertiary institution (Wright et al., 2014) and 37.8% found among undergraduates in Osun State who got their ECP information from friends (Adeniji et al., 2013; Wright et al., 2014). This study reported only 27.0% got ECP information from health workers which is in contrast with that of a study by Awoleke and colleague where a greater percentage got their ECP information from health workers(Awoleke et al., 2015).

In this study 269 (69.2%) were currently sexually active compared to 85.3% and 56.1% observed in similar studies in Port-Harcourt and Lagos, respectively (Akani, Enyindah, & Babatunde, 2008; Ebuehi, Ekanem, & Ebuehi, 2006). Of these only 59.8% used condom during their most recent sexual intercourse. With such a large percentage of sexually active young people in university settings, contraceptive information dissemination is very critical for a healthy student population. Use of ECP in this study was considered low as only 123 (31.6%)

had ever used ECPs and only 97 of these used ECPs after their most recent sexual intercourse. This level of usage was lower than 35.5% reported in Port-Harcourt (Akani et al., 2008), and 33.9% reported in a study carried out in Lagos (Ebuehi, Ebuehi, & Inem, 2006), but higher than 4.2%, 7.2% & 11.87% obtained from similar studies in Ghana, Cameroun and South Africa (Addo & Tagoe-Darko, 2009; Kongnyuy et al., 2007; Roberts et al., 2004).

Several reasons were given by respondents for not using ECPs among which are lack of awareness, 112 (42.1%), fear of side-effects 91 (34.2%) and religious forbidding 39 (14.7%). Some religious groups/ Christian denominations are against the practice of ECP, because they believe that the use of EC is similar to committing early abortion since it interferes with implantation (Gemzell-Danielsson & Marions, 2004). Since majority of the respondents self-identified as Christians, it is not unusual to find religion as a barrier to ECP use. High level of awareness does not necessarily translate to use as seen in the 2013 Nigeria Demographic and Health Survey (NDHS, 2013). The low level of usage observed in this study in spite of high level of knowledge about what ECPs are used for may be attributed to lack of access to contraceptives generally and ECPs in particular (Okpani & Okpani, 2000; Schwarz, Gerbert, & Gonzales, 2007). Only four respondents accessed ECPs from the university medical centre while others got theirs from private pharmacies and patent medicine stores. Neither of them received any form of counseling before use, increasing the likelihood of dependence on informal sources for contraceptive information.

More (52.4%) of the respondents felt that ECPs are not safe for the user, Two hundred and ninety six (76.1%) felt that ECPs can lead to infertility. This is similar to an observation made in a study by Ikeme and colleagues in 2005 (Ikeme, Ezegwui, & Uzodimma, 2005). This perception of there being a relationship between risk of infertility and use of ECP was not fully understood and may require further study. One hundred and forty seven (37.8%) felt ECPs were safe for the users as against 65% among university students in Cameroun (Kongnyuy et al., 2007). Two hundred and forty four (62.7%) felt ECPs encouraged promiscuity. Despite the negative perceptions about use of ECPs in this study, 198 (50.9%) responded positively when asked if they will use ECPs in future, if needed. This is higher than the 40% recorded in a similar study in Enugu (Ikeme et al., 2005).

Unorthodox forms of contraception exist and some were particularly used as emergency contraception. Among several measures and practices improvised as emergency contraception, ingestion of Andrew liver salt accounted for the highest 10 (17.24%), followed by salt and water mixture 9 (15.51%). It has been observed in another study that traditional emergency contraceptive methods among Nigerian women included ingestion of substances such as quinine, gin, potash mixed with blue and limes taken with pepper seeds, Andrews liver salt, schwepps bitter lemon, and antibiotics (SFH, 1998). The rationale behind the usage and the efficacy of these unorthodox methods remains unclear and may require further investigation.

5. Conclusion

Undergraduate students are a population in transition without fully established healthcare-seeking behaviours. This large population of sexually active young adults who are yet to establish health-seeking behaviours of their own and rely on friends for information relevant to their reproductive health is a dangerous mix. Living in Calabar, the capital of Cross River State which records a high HIV prevalence makes the situation even more troubling. Condom use, which is considered one of HIV preventive measure, is very low among the study population. Based on the findings of this study, the students' knowledge on what ECPs are used for was high, however knowledge on specific details such as timing and dosage was poor. The practice of ECPs among these students was low although their general perception towards future use of emergency contraceptive pills was positive. This therefore calls for intensified effort towards enhancing their knowledge in order to harness the benefits of ECPs in preventing unwanted pregnancies. A comprehensive reproductive health programme providing factual information on emergency contraception using peer-to-peer communication could reach more young adults and help reduce adverse outcomes associated with unwanted pregnancies.

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