

Emergency contraception; knowledge, perception and practice among female undergraduates in a University community in Nigeria

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ABSTRACT

Despite the availability, safety and efficacy of emergency contraception, the prevalence of unwanted pregnancy and thus, induced abortion, in our schools continue to increase worldwide especially in developing countries. The present study was undertaken to access the knowledge, perception and practice of emergency contraception amongst female undergraduates in University of Nigeria, Enugu Campus, South Eastern Nigeria

Key words: Emergency, contraception, undergraduates, Sexual intercourse, unwanted pregnancies.

INTRODUCTION

Emergency contraception, also known as post coital or morning after contraception refers to any drug or device used to prevent pregnancy following unprotected sexual intercourse or potential contraceptive failure (TPMFL 1998, Ho and Kwa 1993, Turner and Allertson 2002). It has been shown to be capable of preventing at least 86% of expected pregnancies when administered within 72 hours of unprotected coitus (TPMFL 1998). Several regimens are currently available, however, the specific and thus recommended methods in clinical practice include the combined oestrogen-progesterone otherwise known as Yuzpe regimen, the progesterone-only emergency contraception (POEC) (levonorgestrel eg Postinor-2), and the copper-T intra-uterine contraceptive device (IUCD) (FFPRHC 2003). Other methods of emergency

contraception not commonly used in clinical practice include: the progesterone antagonist-mifepristone, high dose oestrogen regimens, synthetic androgen-danazol, and the luteinizing hormone releasing hormone analogue (LHRH) example busserelin (Emuveyan 2005).

Despite the availability, safety and efficacy of the specific emergency contraceptive agents, there is still limited knowledge and practice of emergency contraception amongst women of reproductive age group (Graham et al 1996, Trussel et al 1998, Ebuehi et al 2006). This limited knowledge and practice of emergency contraception is a global public health problem. Consequently, the incidence of unwanted pregnancy and abortion continue to rise in geometrical progression all over the world. Thus, of the estimated 210 million pregnancies that occur annually, 46 million (22%) are said to be

unwanted and more than 90% of these unwanted pregnancies usually end in induced abortion with its attendant complications (WHO 2003). The situation is worse in developing countries like Nigeria where an estimated 610,000 unwanted pregnancies are terminated annually (Henshaw *et al* 1998). The resultant effect of this has been a persistent rise in maternal mortality ratio with abortion constituting up to 40% in some cases (Okonofua 1997).

Despite all these, there is yet inadequate information on the awareness and use of emergency contraception as a golden tool to preventing unwanted pregnancies in Nigeria (Ebuehi *et al* 2006). With the high incidence of cultism and other social vices, including rape in our schools, the need for adequate health education on emergency contraception cannot be overemphasised.

This descriptive cross-sectional survey therefore assessed the knowledge, perception and practice of emergency contraception amongst female undergraduates in University of Nigeria, Enugu, South Eastern Nigeria.

MATERIAL AND METHODS

Study area

The study was conducted in University of Nigeria, Enugu Campus. It is a campus of the University of Nigeria, Nsukka, one of the federal government's premier universities. It is located at Ogui New Layout in Enugu North Local Government Area of Enugu State. The University of Nigeria, Nsukka (UNN) was founded in 1960 following the acceptance of the Cook-Hannal-Targart report of 1959 which considered the proposal for its establishment. It was formally opened on 7th October, 1960 by Princess Alexandria of Kent who represented Queen Elizabeth II of Britain. The University of Nigeria Enugu Campus (UNEC) was opened in 1961 following the absorption by UNN of the then Enugu Branch of the Nigeria College of Arts, Science and Technology as recommended by Ashby-commission and approved by the federal government. The campus has 6 faculties which include; faculty of medical sciences, dentistry, law, health sciences, business administration and environmental studies. It has

8 hostels for undergraduate students and one for postgraduate students. 5 out of the 8 undergraduate hostels are female hostels. The housing policy of the university aims at accommodating all female undergraduates. The hostels were run by the department of Students' Affairs. Each has a Hall Master or Mistress, a Hall Supervisor as well as a number of Porters. They all work in conjunction with the students' Hall government.

Study design

A descriptive questionnaire based cross-sectional survey using 700 female undergraduates selected randomly from the university.

Study population

A total of 2,553 female undergraduates were accommodated in the various 5 female hostels.

Sampling method

Multistage sampling method was used. In the first stage, a simple random sampling method was used to select 3 female hostels out of a total of 5 female hostels in UNEC. In the second stage, proportionate stratified sampling method was used to distribute the sample size to the 3 selected female hostels. In the 3rd stage, a systematic sampling method was used to select every 3rd room in the 3 selected hostels. The inmates of these selected rooms were then used for the study.

Sample size determination

This was calculated using the formula $n = Z^2 Pq/d^2$ where n = sample size, Z = coefficient of Z statistics obtained from the standard normal distribution table, P = prevalence rate (in %), $q = 100 - P$ and d = sampling error tolerated (%). Using a prevalence rate of 67.8% obtained from a previous study from Lagos, South Western Nigeria, with a confidence limit of 95% ($d = 5\%$) and Z of 1.96, the calculated sample size was 335. The sample size of 700 used in this study was far above this calculated figure. This would help reduce sampling error and improve the accuracy of the study.

Data collection

This was obtained using self administered, structured and pre tested questionnaires. Each questionnaire consisted of 15 questions

organised into 3 sections. After obtaining ethical clearance from the relevant authority and permission from the Hall Supervisors of the selected hostels, a verbal consent was sort and obtained from all the selected students. The questionnaires were then distributed to them and collected back immediately after filling. All the 700 questionnaires distributed were filled and collected back. The whole process of distribution and collection of questionnaires took 3 weeks between 2nd February to 23rd February 2007.

Statistical analysis

This was by descriptive and inferential statistics using statistical package for social science SPSS (SPSS Inc: 2001) for windows version 11. Data Presentation was done using frequency tables.

RESULTS

All the 700 female undergraduates that were selected filled and returned their questionnaires giving a response date of 100%. Students of dentistry in the entire school were about 10 in number and none was within the sample range. The mean age of the students was 23.01±2.6 (range: 17-40) yrs. The modal age was 22 yrs. Out of these 700 undergraduates, 672 (96%) were single while the remaining 28(4%) were married.

Majority of the students, 228 (32.6%) and 144(20.6%) were in their 5th and 1st year of study respectively. The rest were in their 2nd, 3rd, 4th and 6th year of study. Medical students and students from the faculty of business administration constituted 27.7% and 21.7% respectively of the students studied. The rest of the students were from the faculty of law (18.6%), faculty of health sciences (17.4%) and faculty of environmental studies (14.6%).

Of the 700 respondents, 596 (85.1%) were aware of emergency contraception while only 104(14.9%) were not aware of emergency contraception. The awareness of emergency contraception was significantly higher among medical students than students from other faculties ($P = < 0.05$).

Of those who were aware of emergency contraception, their main source of information was through friends (43.1%). Other Sources included lectures/internet (29.3%), newspapers/journals (16.5%), workshops/seminars (7.7%). Only 3.4% obtained information from their parents.

Of the 596 students aware of emergency contraception, 422 (70.8%) have the knowledge of high dose progestogen (postinor-2) as a type of emergency contraception. Only 6.7% knew that IUCD was a type of emergency contraception. Of those who were aware of emergency contraception, only 346 (58.1%) approved of its use while the remaining 250 (41.9%) did not approve of its use. The most common reasons were religious (50.4%) and that they were harmful to health (49.2%). Other reasons included; not easily available (2.4%), not effective (2.4%). Nine point six percent (9.6%) did not have any reason for their disapproval as shown in table 1.

Table 1: Reasons for Disapproval of emergency contraception

	No	%
Not easily available	6	2.4
Not effective	6	2.4
Harmful to health	123	49.2
Religious reasons	126	50.4
No reason	24	9.6

Of the 346 students that approved of its use, only 138(39.9%) had used emergency contraception while the remaining 206 (60.1%) had never used it. Of the 138 students that had used emergency contraception, 106 (76.8%) used high dose progestogen (Postinor-2). Only 2(1.4%) used IUCD. These are shown in table 2.

Of those that had used emergency contraception, the most common situation for their usage was following unprotected sexual intercourse (61.6%). Other situations where they used it included; intercourse following miscalculation of safe period (43.5%), following breakage of condom (17.4%), sexual intercourse following skipping the use of oral contraceptive pills (2.9%) and following sexual assault such as rape (2.9%).

Eighty two (59.4%) of those who had used emergency contraception maintained that it worked all the time while 44(31.9%) and 12(8.6%) said that it worked only few times and never worked at all respectively, as illustrated in table 3.

Only 206 (34.6%) out of 596 (85.1%) that were aware of emergency contraception identified 72 hours as the correct time interval for effectiveness of emergency contraceptive drug use. Majority, 374 (62.8%) did not have any idea of the correct time interval for its effectiveness.

Table 2: Use of emergency contraception and the type used

Usage	No	%
Has used	138	39.9
Has not used	208	60.1
Total	346	100
Types of EC used		
High dose progestogen (Postinor-2)	106	76.8
High dose estrogen	8	5.8
High dose combined pills	51	37.0
Copper – T IUCD	2	1.4
Mifepristone	10	7.2

Table 3: Effectiveness of emergency contraception used

	No	%
Worked all the time	82	59.4
Worked few times	44	31.9
Never worked	12	8.6
Total	138	100

DISCUSSION

This study revealed that there was a very high level of awareness of emergency contraception (85.1%) amongst female undergraduates in UNEC. This figure was similar to 81.0% reported in similar study from England and USA (Corbett etal 2006). However, it was higher than most figures reported from some local studies (Bako 1998, Adenkule

et al., 2000, Tripathi *et al.*, 2003). This high figure might not be unconnected to the recent surge of information technology (internet) in most tertiary institutions in the country.

The commonest initial source of information was through friends (43.1%). That lecture was the second commonest source of information was not surprising as emergency contraception now constitutes part of the academic curriculum of both the medical and health sciences students. The fact that journals/newspapers and workshops/seminars constituted only 16.5% and 7.7% respectively indicates the need for more coverage to be given to this method of contraception via relevant journals and workshops. Only 3.4% obtained the information through their parents. This re-emphasizes the fact that parents often fail to provide contraceptive information to their children due to religious and socio cultural reasons(Aboyeji etal 2002,Bassey *et al.*, 2005).

High dose progestogen (Postinor-2) was the most commonly known emergency contraceptive agent. This was probably because of its availability, affordability and ease of administration.

Despite the high level of awareness of emergency contraception, only 58.1% approved of its use. This figure was similar to 59.1% reported from a previous study in Enugu, among health care professionals (Obionu 1998). The major reasons given for disapproved of its use were mainly religious and erroneous misconception that they were harmful to health. This poor attitude of the respondents to emergency contraception was in agreement with previous studies (Obionu etal 1998, Aboyeji etal 2002).

Similarly, the use of emergency contraception was very low as only 19.7% of the respondents and only 39.9% of those who approved of its use had ever used any. This was in agreement with 37.8% reported from similar study from Lagos, south western Nigeria (Ebuehi etal 2006) and higher than 11.8% reported from female tertiary students in Durban, South Africa (Candice etal 2004). Majority of the respondents who had used emergency contraception, used postinor-2.

Again this may probably be due to its availability, affordability and ease of administration. Majority of those who had used emergency contraception sited unprotected sexual intercourse as the situation for their usage. This showed that most students still engage in unprotected sexual intercourse despite widespread campaign on condom use. It therefore indicates that great emphasis should also be focused on emergency contraception as a method of preventing unwanted pregnancy. Since abortion is still considered as illegal in Nigeria, most of these pregnancies will be terminated by quacks in unhygienic environment with dire consequences and adverse effect on school health. Only 34.6% of those who were aware of emergency contraception identified 72 hours as the correct time interval for optimum effectiveness of the drugs. This figure was not surprising as only 59.4% of those who had used

emergency contraception reported that it was effective all the time as opposed to the 86% reported in literature (TPMFL 1998). This figure was in agreement with similar previous studies (Obionu *et al.*, 1998, Bako 1998, Ebuehi *et al.*, 2006).

In conclusion, the awareness of emergency contraception is very high among female undergraduates in UNEC. However, the attitude and practice are still low due to certain misconceptions. Therefore, more enlightenment campaigns in this regard are very essential so as to dispel this current misconception especially regarding its safety. Parents should be encouraged to discuss reproductive health matters with their children. This will go a long way in reducing the incidence of unwanted pregnancies in our schools.

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