

# Awareness and Practice of Emergency Contraception Among Students of University of Port Harcourt, South-South Nigeria.

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## ABSTRACT

The awareness and utilization of contraceptives especially emergency contraceptives (EC) among youths and others in the reproductive age group is an important step in preventing unwanted pregnancies and unsafe abortions. The aim of this study was to assess the knowledge, attitude and practice of emergency contraception among undergraduate university students.

## Methods:

A self administered questionnaire was distributed to 240 randomly selected undergraduate students of the University of Port Harcourt, Port Harcourt, South-South Nigeria, in July 2006. Information sought included their sociodemographic characteristics, awareness, perception and use of emergency contraception.

## Results:

Two hundred and forty questionnaires were distributed, while 225 were appropriately filled and retrieved giving a response rate of 93.8%. The age of the respondents ranged between 16 to 40 years, with a mean age of 23.2 years. Up to 86.3% of the respondents were sexually active. One hundred and thirty (57.7%) had knowledge of EC, while only 30 (13.3%) had ever used EC. Of the respondents who were aware of EC the most common sources of information on EC were friends in 54(41.2%) and hospital personnel/clinics in 51 (39.2%).

## Conclusion:

The awareness and use of emergency contraception among students of University of Port Harcourt, South-South Nigeria, is unacceptably low. There is therefore an urgent need to improve the student's knowledge and use of EC through education and enlightenment of this vulnerable group in our environment.

**Key words:** Emergency contraception, awareness and practice, university students, Nigeria.

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contraceptives". Its use in humans dates back to the 1960s when physicians in the Netherlands administered estrogen extract to a 13 year old girl who had been raped in midcycle. In 1977, Professor Albert Yuzpe published a regimen that consisted of 100µg ethinyl estradiol and 0.5mg levonorgestrel taken within 72 hours of unprotected intercourse and repeated 12 hours later<sup>3</sup>. The Yuzpe regimen, as it is now called, was found to reduce the chances of pregnancy by 75%. Progestin-only preparations are also used in emergency contraception. Apart from being more effective, they also cause fewer side effects<sup>4,5</sup>. The use of low dose mifepristone for emergency contraception has also been well documented<sup>6</sup>. The copper T intrauterine contraceptive (IUCD) insertion within 120 hours after unprotected sex offers another form of emergency contraception<sup>4,5,6</sup>.

An estimated 46 million pregnancies end in induced abortion yearly, and nearly 20 million of these are estimated to be unsafe<sup>7</sup>. In Nigeria, unintended intercourse is the primary cause of unintended pregnancy and induced abortion<sup>8</sup>. Primary prevention for unintended pregnancy includes contraception, natural family planning, and education.

Emergency contraception is an underutilized form of primary pregnancy prevention. There is therefore growing interest in the potential impact that emergency contraception could have on unwanted pregnancies and unsafe abortions. About 13% of pregnancy-related deaths worldwide have been attributed to complications of unsafe abortion and 99% of these occur in sub-saharan Africa<sup>7,9</sup>. Pregnancy therefore poses considerable risk to the life of many women in sub-saharan Africa. This is especially so when the pregnancy is unwanted. The use of emergency contraception in reducing the rates of unwanted pregnancies and unsafe abortions would be most clearly demonstrated in this region if well promoted and utilized. However, low literacy levels, limited access to pharmacies and family planning services, and traditional beliefs that hinder the use of modern contraceptive methods pose considerable challenges to its promotion<sup>10</sup>.

Research on public knowledge and attitude towards emergency contraception can help in advocacy and promotion of use of these methods in this region. Previous studies in several countries have helped in identifying key areas of misinformation about emergency contraception, specific population lacking information about emergency contraception and strategies to disseminate information to the public about emergency contraception<sup>11,12</sup>. One potential factor limiting use of emergency contraception in Nigeria might be lack of information or misinformation about the method resulting in unfavorable opinions about the method<sup>13</sup>.

## INTRODUCTION

Emergency contraception (EC) refers to use of a drug or device in the menstrual cycle to prevent pregnancy after unprotected sexual intercourse or a contraceptive failure<sup>1</sup>. The most common form is the Emergency contraceptive pill<sup>2</sup> (ECP) sometimes called "morning-after pills or "post-coital

This study focuses on knowledge and attitudes towards emergency contraception in a population of Nigerian university students. The emphasis is on this population because of the high risk of unplanned pregnancies in group. It is our hope that this study will help to stimulate further studies on the use of emergency contraception in Nigeria.

## MATERIALS AND METHODS

It was a cross-sectional study carried out among a sample of undergraduate students of the University of Port Harcourt in July 2006. The minimum sample size was calculated using the Kish<sup>14</sup>, formula:

$$N = Z^2PQ/D^2 \text{ where}$$

Z = area under curve, corresponding to 95% confidence interval or 1.96,

P = expected prevalence of the condition in the environment of study or 3.7% = 0.037,

$$Q = 1 - P \text{ and}$$

D = desire precision at 5% confidence interval or 0.05.

The calculated minimum sample size was 125; however, at the discretion of the investigators, 240 students were recruited.

Institutional approval for the study was obtained from the students' affairs office and informed consent from the participating students was obtained. Medical students were excluded from the survey to limit bias due to their undue advantage and access to contraception education. A pre-tested, self-administered questionnaire was distributed to a random sample of 240 students during a normal lecture period to eliminate chances of correlated or block response. The questionnaire had both closed and open ended questions. Information was sought on their sociodemographic characteristics, sexual activity, awareness, attitude and use of emergency contraception and efficiency of the method used. Socially and culturally acceptable ways of making emergency contraceptives available to Nigerian women were also explored.

The information was analysed using SPSS version 11.0 and results presented as simple percentages.

## RESULTS

Of the 240 questionnaires distributed, 225 were appropriately filled and completed, giving a response rate of 93.8%. The age range of the respondents was between 16 - 40 years with a mean age  $\pm$  SD of 23.2  $\pm$  4.3 years. One hundred and forty-six (64.88%) were between 16-25 years, while 5 (2.22%) were 36 years and above as shown in figure I. Two hundred and twenty (97.8%) respondents were single, while 5 (2.2%) were married. Up to 92% (207) were Christians, while 18 (8%) were Muslims. Up to 86.3% of the respondents were sexually active, while 13.7% had never had sexual intercourse.

### Knowledge of Emergency Contraception

Table 1 depicts the awareness of emergency contraception. One hundred and thirty (57.7%) respondents had heard of emergency contraception. Of these 90 (69.2%) knew the correct timing and use of EC, while only 53 (48.8%) of these knew emergency contraceptive pills could also be called "morning after or post coital pill". Postinor, a dedicated emergency contraception product which was already on the Nigerian market was known to only 46 (20.4%) respondents. This was however, considered the most commonly used

modern emergency contraceptive while the use of concentrated salt, stout beer or having an enema were considered commonly used traditional methods of emergency contraception.

### Source of Information on Emergency Contraception

Table 2 shows the distribution of source of information. Of the 130 respondents aware of EC, 54 (41.2%) heard of it from friends, 51 (39.2%) of these heard it through hospital/clinic personnel, while 25 (19.2%) heard it for the first time through the mass media.

### Attitude

One hundred and nine (83.8%) of the 130 respondents who were aware, approved that EC should be easily available in Nigeria and its use be promoted by the government. They disagreed that emergency contraception was obsolete and should be discarded. However, the other 21 (16.2%) respondents were undecided. Sixty (42.6%) of respondents either "strongly agreed" or "agreed" that emergency contraception should be encouraged in our family planning clinic while same number "disagreed" or "strongly disagreed" that it was undesirable in the tertiary health institution. Ten (7.7%) respondents were undecided. The issuance of advance prescription and procurement of emergency contraception pills only in pharmacies and health facilities received approval from 85 (63.4%) respondents. Only 25 (19.2%) approved of over-the-counter sale of emergency contraception, while the rest were undecided.

Seventy two (55.4%) of the respondents who had knowledge of EC were of the view that the provision of emergency contraception to adolescents would increase sexual promiscuity among them while only five (3.8%) disagreed. The rest were undecided on the effect that its availability would have on their sexual habits. The respondents identified factors such as side effects of emergency contraceptives, ignorance, illiteracy, poverty, cost, unavailability of emergency contraceptive, misuse, religion and culture as hindrances to the effective use of emergency contraception in Nigeria.

Overall, one hundred and fifty nine (70.7%) of the 225 respondents were willing to know more about emergency contraception, while 66 (29.3%) respondents were not willing. Only 4 (2.1%) of non users were ready to use it in future.

### Use of Emergency Contraception

Table 3 shows that only 30 (13.3%) respondents reported ever using emergency contraception, majority (53.3%) of these were 22 years of age or younger. All the 30 respondents who had previously used emergency contraception were sexually active, with 50% reporting that they used it for the first time because a condom broke or slipped off while the remaining 50% used it for the first time after unprotected casual sex intercourse. When these respondents were asked how frequently they had used EC in the past year, 5 respondents reported not using the method in the last 1 year, 2 had used the method once, 17 reported using the method between 2 and 6 times while only one person had used the method more than 6 times in the past year. None of the respondents became pregnant after its use.

Common side effects elicited by respondents in order of

Figure 1

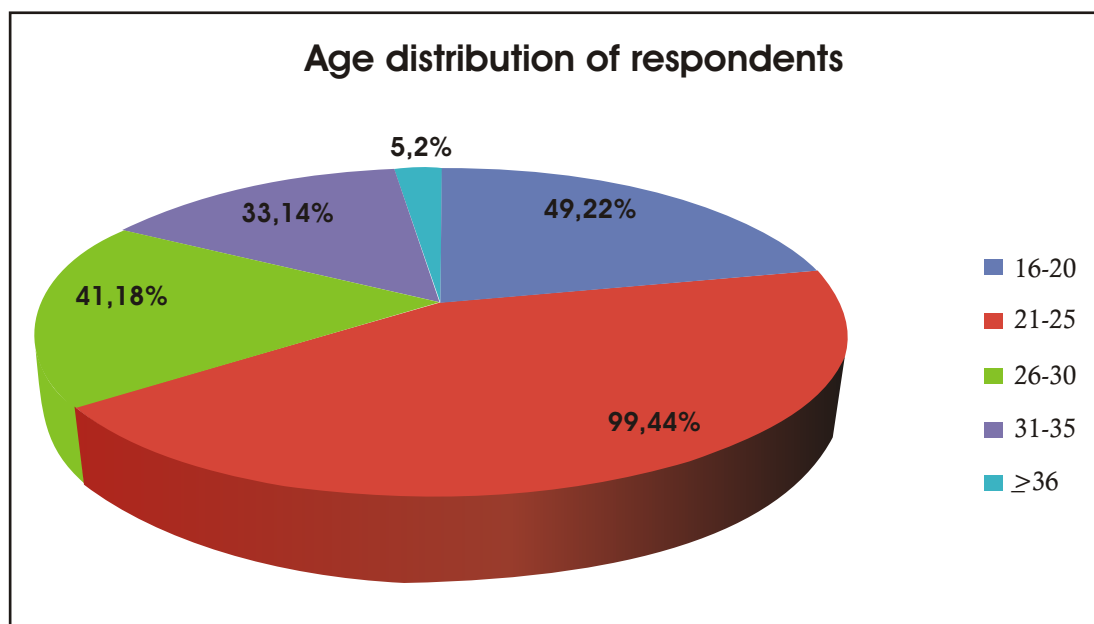


Table 1. Knowledge of Emergency Contraception (EC)

Definition	Number	Percentage (%)
Aware of EC	130	57.8
Not aware	95	42.2
<b>Total</b>	<b>225</b>	<b>100</b>
Definition & Timing of EC		
Correct	90	69.2
Incorrect	40	30.8
<b>Total</b>	<b>130</b>	<b>100</b>
Aware of postinor	46	35.4
Not aware	84	64.6
<b>Total</b>	<b>130</b>	<b>100</b>

frequency were dizziness, headache, fatigue, nausea, and vomiting.

#### DISCUSSION

The results of this study clearly showed that there is limited knowledge and abysmally low utilization of emergency contraception at 13.3%, even when over 86% of the students are sexually active and single. These are in keeping with results of previous studies within<sup>14,15</sup> and outside<sup>16,17</sup> Nigeria. This poor knowledge and use of emergency contraception has resulted in high rates of unwanted pregnancies and consequently unsafe abortions among these vulnerable groups with its attendant consequences especially in resource poor settings like ours.<sup>15</sup>

Efforts should therefore be made by the government and relevant agencies at all levels to promote the use of EC especially among the adolescents and the youths who are at risk of casual sex and unwanted pregnancies. Educational campaigns in the various schools are also recommended to provide these young Nigerians with even, detailed information about emergency contraception, since it is an important resource with excellent potential to further reduce the number of unwanted pregnancies and abortions in this country. Emergency contraception is safe and effective for almost all women. It is also incumbent on health care providers to supply women and adolescents with the information they need to make informed decisions about all aspects of their reproductive healthcare, including decision on use of EC.

Forty percent of the respondents in this study knew the correct timing and use of emergency contraception. This is much higher than report of a previous Nigerian study,<sup>13</sup> but lower than the reported 53% in a South African study.<sup>16</sup> Wrong timing of EC use may lead to contraceptive failure. Concerted efforts should therefore be made by reproductive and other health care providers, relevant Non-governmental

Table 2. Source of information

Source	Number	Percentage (%)
Friends	54	41.2
Health personnel/clinics	51	39.3
Media	25	19.5
<b>Total</b>	<b>130</b>	<b>100</b>

Table 3. Use of Emergency contraception

Usage	Number	Percentage (%)
Had used	30	13.3
Never used	195	86.7
<b>Total</b>	<b>225</b>	<b>100</b>

organizations (NGOs) and the governments at all levels to provide this vulnerable group reliable contraceptive information.

The most common sources of information on emergency contraception for the students were friends and health personnel. One strategy to increase accurate information about emergency contraception in this population would be by promoting reproductive health education. Information could also be spread through peer-counseling, websites and distribution of information post-cards/leaflets<sup>18,19</sup>. It has also been suggested that youth friendly centres, equipped to offer contraceptive information services be established in our tertiary institutions to take care of the reproductive health needs of this people.<sup>15</sup>

The impact of mass media in this study was rather very low, as only 19.4% of the students who had knowledge of EC, heard it through the media, in keeping with reports of other workers in Southeastern Nigeria.<sup>15</sup> There is therefore the need to intensify publicity through the electronic and print media.

Despite the limited knowledge and low utilization, majority of students in this study who were aware, had favourable opinion about emergency contraception. Most students supported the provision of emergency contraception throughout Nigeria and were aware of the role this method could play in preventing unwanted pregnancies. It is most likely that this favourable attitude towards emergency contraception would translate to increased utilization if its use is generously promoted by the relevant agencies and government.

## CONCLUSION

There is poor knowledge and abysmally low use of emergency contraception amongst students of the University of Port Harcourt. This is particularly disturbing when viewed against the backdrop that these students belong to the age group at high risk of unplanned pregnancies.

There is therefore need to improve the awareness and use of emergency contraception among this vulnerable group through the mass media as a general measure, and specifically by establishment of youth friendly centres in our universities, equipped to offer contraceptive and other reproductive health services.

## REFERENCES

1. American College of Nurse-Midwives. Emergency contraception. *Journal of Midwifery and Women's Health*, 2006;51(6):519-20.
2. Consortium for Emergency Contraception. Emergency Contraceptive Pills: Medical and Service Delivery Guidelines 2000: 1-15.
3. Yuzpe AA, Lancee WJ. Ethylestradiol and di-norgestrel as post-coital contraceptives. *Fertility and Sterility* 1977; 28: 932-936.
4. Gupta P, Hewitt G. Update on emergency contraception: reviews in Gynaecological practice. *Contraception* 2002;2:5-9.
5. Brunton J, Beal MW. Current issues in Emergency contraception: An overview for providers. *Journal of Midwifery and Women's Health*, 2006;51(6):457-63.
6. Ashok PW. A randomized study comparing a low dose mifepristone and the Yuzpe regimen for emergency

7. World Health Organization. *Safe Abortion: Technical and Policy Guidance for Health Systems*, 2003:12
8. Akani CI, Enyindah CE, Babatunde S. Emergency Contraception: Knowledge and Perception of Female Undergraduates in the Niger Delta of Nigeria. *Ghana Med J* 2008; 42(2): 68-70.
9. Abouzahr C, Wardlaw T. Maternal mortality at the end of a decade: signs of progress? *Bull World Health Organization*, 2001:79:561-8.
10. Barfai GY. Emergency contraception in clinical practice: global perspectives. *Int J Gynecol Obstet*, 2000;70:49-58.
11. Baiden F, Awini E, Cleric C. Perception of University students in Ghana about emergency contraception: *Contraception* 2002;66:23-26.
12. Aziken ME, Okonta PI, Ande AB. Knowledge and perception of emergency contraception among female Nigerian undergraduates. *Int. Fam Plan Perspect*, 2003;29(2):84-7
13. Arowojulu AO, Adekunle AO. Perception and practice of emergency contraception by post-secondary school students in Southwest Nigeria. *Afr J Reprod Health*, 2000;4(1):56-65.
14. Kish L. *Survey Sampling*. New York, Wiley, 1965: 259.
15. Ibekwe PC, Obuna JA. Awareness and Practice of Emergency Contraception among University Students in Abakaliki, Southeast Nigeria. *Niger J Clin Pract* 2010; 13(1): 20-23.
16. Smit J, McFadyen L, Beksinka M. Emergency Contraception in South Africa: Knowledge, attitudes and uses among sector Primary Health Care Clients. *Contraception* 2001; 64(6): 333-337.
17. Glasier A. Emergency contraception. *Br Med Bull* 2000; 56(3): 729-738.
18. Bajos N, Goulard H, Job-Spira N. Emergency contraception from acceptability to Counselling. *Contraception* 2003; 67: 39-40.
19. Blanchard K, Way AA. Sexual behaviours and Contraceptive knowledge and use among Adolescents in developing countries. *Studies Fam Plann* 1998; 106-116.

**CONFLICT OF INTEREST:** None