

Knowledge and Perception of Emergency Contraception Among Female Nigerian Undergraduates

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CONTEXT: *The reproductive health hazards of unintended pregnancies and unsafe abortions are well documented. The potential of emergency contraceptives to prevent unwanted pregnancy in developed countries has been described, but in Nigeria, the awareness about the method is poor and no study has looked at efficacy.*

METHODS: *Between September and October 2001, a randomly selected sample of female undergraduate students at the University of Benin, Nigeria, were surveyed about their demographic information, sexual history and contraceptive use, and their awareness and knowledge of emergency contraception.*

RESULTS: *Of the 880 respondents, 43% were sexually active, 39% had ever practiced contraception and 34% had ever had an induced abortion. Overall, 58% of respondents reported knowing about emergency contraception; sexually active respondents were significantly more likely than those who were not and those who had ever practiced contraception were more likely than those who had not to be aware of emergency contraceptives. However, only 18% of respondents who reported knowing about emergency contraception knew the correct time frame in which emergency contraceptives must be used to be effective.*

CONCLUSION: *There is an urgent need to educate Nigerian young people about emergency contraception, emphasizing available methods and correct timing of use.*

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Unintended pregnancy poses a major challenge to the reproductive health of young adults in developing countries. Some young women with unintended pregnancies obtain abortions—many of which are performed in unsafe conditions—and others carry their pregnancies to term, incurring risks of morbidity and mortality higher than those for adult women.¹

Given increasing adolescent sexual activity and decreasing age at first sex in developing countries,² the use of contraceptives to prevent unwanted pregnancy and unsafe abortion is especially important. In Nigeria, however, contraceptive use among adolescents is low.³ Studies from western and southern Nigeria have found rates of contraceptive use among sexually active adolescents of about 30%,⁴ considerably lower than the rates reported for developed countries. For example, contraceptive prevalence among sexually active Danish adolescents is 95%.⁵ As is the case in Kenya,⁶ the low levels of contraceptive use among adolescents in Nigeria may reflect inadequate contraceptive knowledge and access, as well as the spontaneity of adolescent sexual activities. They may also reflect the notion among youth that it is easier and safer to obtain an abortion than to practice contraception on a regular basis.⁷

Among the various forms of contraception, emergency contraceptives are the only one that can be used after sexual intercourse, offering a second chance to prevent unwanted pregnancy.⁸ Levonorel-estrel-only pills and combined oral contraceptives are the most common emergency con-

traceptive methods available in Nigeria; they can be obtained over the counter from patent medicine and pharmacy shops.

The aim of the study presented in this article was to determine knowledge about and perceptions of emergency contraception among female undergraduates in Nigeria. In addition, we evaluate factors that influence knowledge and perceptions to enable the development of strategies that will improve use of emergency contraceptives by Nigerian youth.

METHODS

During September and October 2001, we recruited female students at the University of Benin, Benin City, Nigeria. The university has about 6,000 female students, the majority of whom reside four to a room in on-campus female hostels. To obtain a random sample, we selected the women in every third room to participate. After receiving information about the study, those who volunteered to participate were given the self-administered questionnaire to complete.

The questionnaire, which had been pretested among 50 nonparticipants, asked women about their demographic information, sexual history and contraceptive use, and their awareness and knowledge of emergency contraceptive pills. Women were asked when emergency contraceptives must be used to be effective, which drugs (from a list of eight) can be used as emergency contraceptives and the sources where they obtain their information on emergency contraceptives. To maintain anonymity, we instructed re-

TABLE 1. Percentage distribution of female Nigerian university students, by selected characteristics

Characteristic	% (N=880)
Age	
15–19	10.2
20–24	68.9
25–29	18.4
≥30	2.5
Marital status	
Never married	95.7
Married	4.1
Divorced	0.2
Year of study at university	
1	30.2
2	18.2
3	5.9
4	39.3
5–6	6.4
Had intercourse in past four weeks	
Yes	43.0
No	57.0
Ever had an induced abortion	
Yes	34.4
No	65.6
Ever practiced contraception	
Yes	39.1
No	60.9
Methods ever used†	
Pill	6.9
Injectable	3.7
Emergency contraceptive	2.1
Condom	25.9
IUD	4.8
Spermicide	<1.0
Rhythm	11.4
Withdrawal	45.2
Total	100.0

†Among the 344 women who had ever practiced contraception.

spondents not to write their names on the questionnaire.

Overall, 880 women completed the questionnaire and were included in analysis. Data were coded, and were analyzed using the EPI Info 2000 version 1.0 software package. Respondents were separated into subgroups by selected characteristics, such as contraceptive use, sexual activity and year of study. We used chi-square tests to determine whether knowledge about emergency contraceptives differed significantly by subgroup.

RESULTS

Seventy-nine percent of the respondents were aged 15–24 (Table 1). The vast majority of students (96%) had never been married, with the remainder being either married or divorced. Thirty percent were in their first year of study at the university; 18% were in year two, 6% year three, 39% year four and 6% years five or six.* We expected that there would be greater proportions of students in years one and

*In Nigeria, students matriculate for four years to obtain an undergraduate degree, with the exception of engineering and medical students, who attend for five and six years, respectively.

four because students in those years are generally housed in the hostels. More than two-fifths (43%) of respondents were sexually active (defined as having had sexual intercourse within the past four weeks). About one-third of all women (34%) reported having ever had an induced abortion.

Thirty-nine percent of respondents reported that they had ever practiced contraception. Of these, 7% had used the pill, 4% the injectable, 2% emergency contraceptive pills, 26% the condom, 5% the IUD and 1% spermicides; the remainder had used nonmodern methods such as rhythm (11%) or withdrawal (45%).

Fifty-eight percent of respondents had heard of a product that could be used to prevent pregnancy after unprotected intercourse (Table 2). Sexually active respondents and those who had ever practiced contraception or had studied at the university for 3–6 years were significantly more likely than other respondents to have heard of emergency contraceptives. There was no significant difference in awareness according to history of induced abortion.

Of the 510 women who were aware of emergency contraception, only 18% correctly identified 72 hours as the time limit for the method's use (Table 3, page 86). An additional 49% thought that emergency contraceptives were effective only when used within 24 hours of unprotected sex. Although this answer is within the 72-hour limit, such misinformation might inhibit someone who could still prevent a pregnancy from taking emergency contraceptives because they thought they had missed their "window" of effectiveness. The pattern of knowledge of correct timing for emergency contraceptives followed the same trend as that for general knowledge: Respondents who were sexually active and those who had ever practiced contraception were significantly more likely to know about the correct timing of use (not shown).

Given a list of eight drugs, 38% of respondents who had heard of emergency contraceptives correctly identified combined oral contraceptives and 42% identified levonorgestrel-only pills as emergency contraceptive methods. Menstro-

TABLE 2. Percentage of female Nigerian university students who were aware of emergency contraceptives, by selected characteristics

Characteristic	%
All	58.0
Sexually active	
Yes	83.6**
No	38.6
Ever practiced contraception	
Yes	81.3**
No	43.1
Year of study at university	
1–2	53.9*
3–6	61.7
Ever had an induced abortion	
Yes	58.0
No	53.5

*p<.05. **p<.001.

TABLE 3. Among female Nigerian university students who had heard of emergency contraceptives, percentage who gave selected responses to questions regarding the method

Question	% (N=510)
When can emergency contraceptives be used to effectively prevent pregnancy?	
Within 24 hrs. after sex	49.4
Within 72 hrs. after sex	17.6
Until one's period	7.1
Even after a missed period	5.5
Do not know	20.4
Which drugs can be used as emergency contraceptives?†	
Combined oral contraceptives	38.0
Dedicated levonorgestrel-only pills	42.0
Menstrogen‡	49.8
Brown codeine‡	12.9
Ampicillin‡	11.4
Quinine‡	24.7
Ergometrine‡	12.2
Gynaecosid‡	2.7
From whom do you get your information on emergency contraceptives?	
Doctor	30.6
Pharmacist	12.9
Nurse	4.7
Female friend	33.0
Boyfriend	4.7
Patent medicine dealer	14.1

†Respondents were able to give more than one answer. ‡Not an emergency contraceptive.

gen—a medication used to treat women with low levels or an absolute lack of estrogen or progesterone—was the drug most frequently cited as an emergency contraceptive (50% of women). When asked to mention other, unlisted methods of emergency contraception, some respondents mentioned antibiotics or home remedies such as alcohol mixed with lime or lime mixed with potash and salty water.

Of the women who were aware of emergency contraception, fewer than half had received their information on the method from trained health providers—31% from doctors, 13% from pharmacists and 5% from nurses. However, 33% had received their information about emergency contraceptives from female friends, 5% from their boyfriends and 14% from patent medicine dealers.

DISCUSSION

Our findings reflect the dearth of correct information on emergency contraceptives available in Nigeria. Fewer than half of respondents who were aware of the method got their information from health care providers. Even more worrisome, fewer than one-fifth of those aware of emergency contraceptives knew the correct timing for their use. This strongly suggests that many health care providers may not be well informed about emergency contraceptives or that they are not effectively conveying the information to their patients.

In the absence of correct information regarding proven emergency contraceptives, some respondents believed that folk methods such as lime mixed with alcohol or potash

could be used as emergency contraceptives. In addition, a substantial proportion believed that medications not intended to be used as emergency contraceptives, such as antibiotics, could be used to prevent unwanted pregnancies. In fact, Menstrogen—used in the treatment of conditions related to low hormonal levels such as dysfunctional uterine bleeding—was the drug most often cited in this study as an emergency contraceptive. Another drug mistakenly thought to be an emergency contraceptive is Gynaecosid, which is recommended for the treatment of amenorrhea not related to pregnancy. The use of these drugs as emergency contraceptive agents is dangerous.

CONCLUSIONS

The great potential of emergency contraception to prevent unintended pregnancies is far from being realized in Nigeria. As university students would be expected to have greater knowledge of emergency contraception than less-educated youths, our findings suggest that correct knowledge of this method is lacking among teenagers and young adults. There is an urgent need to educate adolescents about emergency contraceptives, with emphasis on available methods and correct timing of use. Promotion and advance provision of dedicated emergency contraceptives would very likely enhance their use, just as in developed countries.

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RESUMEN

Contexto: Los peligros que representan los embarazos no deseados y el aborto realizado en condiciones de riesgo están bien documentados. En los países en desarrollo se ha descrito el potencial de los anticonceptivos de emergencia, aunque en Nigeria, hay poco conocimiento sobre este método y no se ha estudiado su eficacia.

Métodos: Entre septiembre y octubre de 2001, se realizó un muestreo aleatorio de mujeres estudiantes universitarias de la Universidad de Benin, Nigeria, y se juntó la siguiente información: datos demográficos, historial sexual y del uso anticonceptivo, y conocimiento sobre anticonceptivos de emergencia.

Resultados: De las 880 entrevistadas, el 43% eran sexualmente activas, el 39% alguna vez habían practicado la anticoncepción y el 34% habían tenido un aborto inducido. En general, el 58% de las encuestadas indicaron que tenían conocimientos sobre la anticoncepción de emergencia; las mujeres sexualmente activas eran significativamente más proclives a conocer el método que aquellas que no eran sexualmente activas, y las que alguna vez habían practicado la anticoncepción eran más proclives a tener conocimientos e información sobre los anticonceptivos de emergencia que aquellas que nunca lo habían hecho. Sin embargo, solamente el 18% de las entrevistadas que conocían de la anticoncepción de emergencia sabían cuál era el momento preciso en que se debía utilizarlo para que resultara eficaz.

Conclusión: Hay una necesidad urgente de educar a las jóvenes de Nigeria sobre anticoncepción de emergencia, destacando la importancia de la disponibilidad de métodos y el momento preciso en que se debe utilizarlo para que sea eficaz.

RÉSUMÉ

Contexte: Les risques pour la santé génésique de grossesses non planifiées et d'avortements non médicalisés sont bien documentés. Le potentiel offert par les contraceptifs d'urgence dans la prévention des grossesses non désirées dans le monde développé a été décrit mais, au Nigéria, la sensibilisation à la méthode est faible et aucune étude n'en a examiné l'efficacité.

Méthodes: Entre septembre et octobre 2001, un échantillon aléatoire d'étudiantes de l'Université du Bénin, au Nigéria, a été soumis à une enquête cherchant à évaluer leurs caractéristiques socio-démographiques, antécédents sexuels et pratiques contraceptives, et conscience et connaissance de la contraception d'urgence.

Résultats: Des 880 répondantes, 43% étaient sexuellement actives, 39% avaient pratiqué la contraception et 34% s'étaient fait avorter. Dans l'ensemble, 58% des répondantes ont déclaré être au courant de la contraception d'urgence. Celles qui étaient sexuellement actives et celles qui avaient jamais pratiqué la contraception étaient significativement plus susceptibles que les autres d'être sensibilisées aux contraceptifs d'urgence. Dix-huit pour cent seulement des répondantes ayant déclaré être au courant de la contraception d'urgence savaient toutefois le délai à respecter pour qu'elle soit efficace.

Conclusion: Il existe un besoin urgent de sensibilisation des jeunes Nigériens à la contraception d'urgence, et surtout aux méthodes disponibles et au délai correct d'emploi.

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