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Original Research Article

Knowledge and practice of emergency contraception among female students of public university of Ouagadougou, Burkina Faso, West Africa

Yobi Alexis Sawadogo^{1*}, Issa Ouedraogo¹, Sibraogo Kiemtore¹, Fatou Ouedraogo², Boubakar Toure¹, Adama Ouattara¹, Dantola Paul Kain¹, Charlemagne R. Marie Ouedraogo¹

¹Department of Obstetrics and Gynecology, Unity of Training and Research in Health Sciences of University Ouaga I Professor Joseph KI-ZERBO, Ouagadougou, Burkina Faso, West Africa

²General practitioner at Medical Center of University Ouaga I Professor Joseph KI-ZERBO, Ouagadougou, Burkina Faso, West Africa

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***Correspondence:**

Dr. Sawadogo Yobi Alexis,
E-mail: sawalexis@yahoo.fr

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ABSTRACT

Background: Female students are exposed to unsafe sex, sources of unwanted pregnancy and abortions. It is recognized that emergency contraception can effectively prevent pregnancy. The purpose of this study was to evaluate the knowledge and practices of Ouagadougou public university students in relation to emergency contraception in order to propose solutions to reduce the proportion of unwanted pregnancies among female students.

Methods: This was a cross-sectional study conducted between May 1st and October 31st, 2016 in the public universities of Ouagadougou. A questionnaire was administered to a sample of 732 students randomly selected.

Results: The average age of female students was 22.7 years old. The age group 19 to 24 was the most represented (68.03%). Of the students surveyed, 87% knew or had heard of emergency contraception. The students only used the emergency contraceptive pill. The emergency contraceptive use rate was 44.42%. Approximately, 83% of users were aware of the delay in using emergency contraception. The reasons for using emergency contraception were condom breakage (25.10%) and unprotected sex (74.9%). Female students purchased the contraceptive directly in pharmacies (93.61%).

Conclusions: Emergency contraception gives women a last chance to avoid an unwanted pregnancy after unprotected sex. Awareness and free availability of emergency contraception (EC) could improve the reproductive health of female students.

Keywords: Emergency, Contraception, Ouagadougou, Students, Universities

INTRODUCTION

Sexual activity has started increasingly early.^{1,2} A document published by the Ministry of Health in 2008, revealed that in the 15-19 age range between 1996 and 2006, there was a considerable increase in the proportion of sexually active women, exposing, earlier and for a longer period of time, these women to reproductive

events (unwanted pregnancy and abortion).¹ Approximately 42 million abortions take place each year worldwide, of which nearly 20 million are unsafe and responsible for 70,000 maternal deaths. Students are particularly exposed to risky sex; behaviours that result in unwanted pregnancies, abortions and sexually transmitted infections including HIV / AIDS.² Virtually all deaths and cases of disability due to abortion could be prevented

by sex education, the use of effective contraceptives.³ It is estimated that about 214 million women in developing countries want to delay the time to have a child or to have no more children but who do not use contraception.⁴ In Africa, 23.5% of women of childbearing age have an unmet need for modern contraceptives.⁴ Thus, the need to promote reproductive health of young people, the Ministry of Health of Burkina Faso has intensified its actions through several strategies such as the strategic plan for securing reproductive health products 2006-2015, and the national plan of Family Planning Revitalization 2013-2015.⁵ Despite these efforts, it is clear that the contraceptive rate remains low. The results of the fourth Demographic and Health Survey reported a contraceptive prevalence of 15% in 2010, of which 14% for modern contraception.⁶ In view of this, the promotion of emergency contraception could contribute to the reduction of unwanted pregnancies. Indeed, emergency contraception (EC) prevents 95% of pregnancies when it is taken within 5 days of intercourse.⁷ Wanting to contribute to the reduction of unwanted pregnancies in a student environment, we initiated this work, which evaluated the knowledge of female students at public universities in Ouagadougou on emergency contraception and their practices.

METHODS

This study was carried out in the public universities of Ouagadougou in Burkina Faso (University Ouaga I Professor Joseph KI ZERBO and University Ouaga II) This was a cross-sectional descriptive study that took place from March 1st to October 31st, 2016. The study population was students regularly enrolled in the public universities of Ouagadougou, during the year 2015-2016. Regularly enrolled students who voluntarily accepted and completed the survey cards were included in present study. Female students whose survey cards were incompletely completed (68 cases) were excluded from the study.

Present study was conducted in the health service of the National Center of University Works located in the public universities of the city of Ouagadougou in Burkina Faso. The data were collected using a written and anonymous questionnaire and administered after a pre-test performed on 45 female students.

The questionnaires were completed by the students themselves and then collected on the spot. According to a previous study in 2012, the prevalence of emergency contraception was 35.2% in the student environment ($p = 0.352$).

Using the Schwartz formula $n = z^2 p (1-p) / e^2$ ($z = 1.96$, $e = 0.05$ accepted margin of error), the minimum sample size to obtain a representative sample of students was 351 individuals. This minimum size was corrected by the 5% no response rate. The estimated minimum size was 369 students. We included 732 students.

The data were collected using a written and anonymous questionnaire and administered after a pre-test performed on 45 female students. The cards were completed by the students themselves and then retrieved immediately afterwards.

Variables such as sociodemographic characteristics, gynecological history, knowledge on emergency contraception, use of emergency contraception were reported. On the ethical front, the conditions for collecting and keeping the information respected the fundamental principles of human rights. The anonymity of the questionnaire and the confidentiality of the data have been respected. The approval of the ethics committee was obtained before the completion of this work.

RESULTS

Sociodemographic characteristics

During this study period, we surveyed 732 students. The age of female students ranged from 19 to 35 with an average age of 22.7 years. Female undergraduates were the most numerous with 82.38%. Table 1 gives the distribution of female students by different characteristics.

Table I: Distribution of female students by socio-demographic characteristics.

Characteristics	Number	Percentage
Age		
19-24 years	498	68.03
25-29 years	197	26.91
30-35 years	37	5.05
Total	732	100
Cycle level		
1 st cycle	603	82.38
2 nd cycle	129	17.62
Marital status		
Single	659	90.03
Marital life	73	9.97
Religion		
Christian	331	45.22
Muslim	385	52.60
Animist	11	1.50
Jehovah's Witness	5	0.68
Residence		
University campus	135	18.44
In family	237	32.38
Rented house	95	12.98
Guardian's court	191	26.10
At a friend's house	74	10.11

Student knowledge of emergency contraception

Regarding emergency contraception, 637 students representing 87.02%, said they had heard about it.

Of these, 389 (61.07%) knew the definition of emergency contraception. Female students who could not correctly define emergency contraception accounted for about 39%. Figure 1 gives the distribution of female students by source of information on emergency contraception (EC). Almost all the students who have ever heard of EC (98.90%) knew the utility. Only 7 students (1.1%) thought that the role of EC was to regulate the menstrual cycle. Regarding the use of EC, 81.94% of female students knew the mode of administration, 8.63% had a false knowledge and 9.42% of female students had no idea.

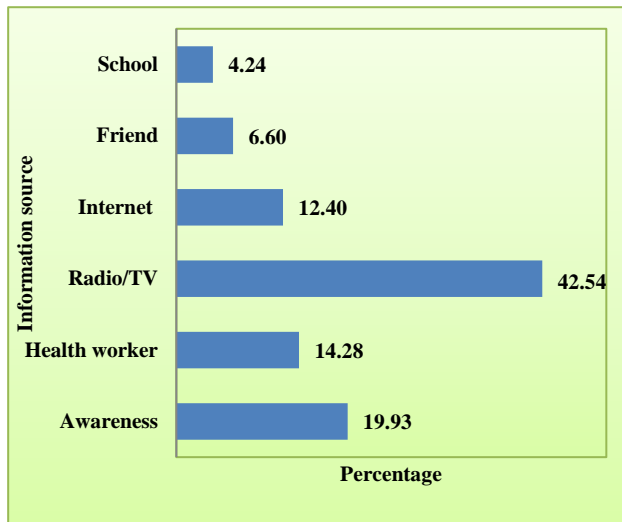


Figure 1: Distribution of female students by source of information on emergency contraception.

Figure 2 presents the assessment of the effectiveness of emergency contraception by female students. The results of assessment of EC use period by students is given in the figure 3. Only 152 students (23.86%) said that emergency contraception has adverse effects that would be menstrual disorders, cancer, abortions, infertility. Is information on emergency contraception available?

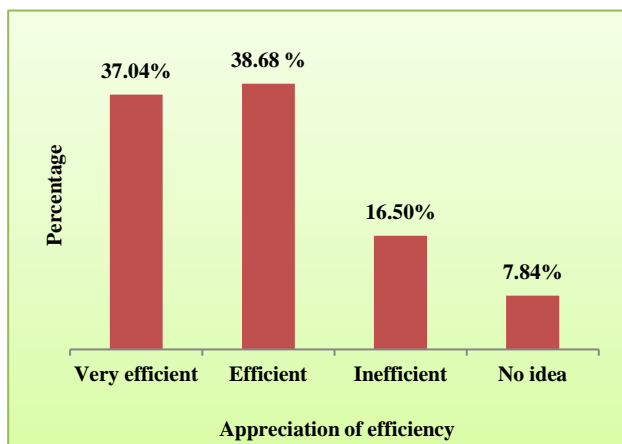


Figure 2: Distribution of female students according to the opinion on the effectiveness of emergency contraception.

In this question, the majority of respondents, 83.47%, said they had not received enough information about emergency contraception.

They proposed the organization of awareness sessions on emergency contraception. Only 16.53% said that this information was available.

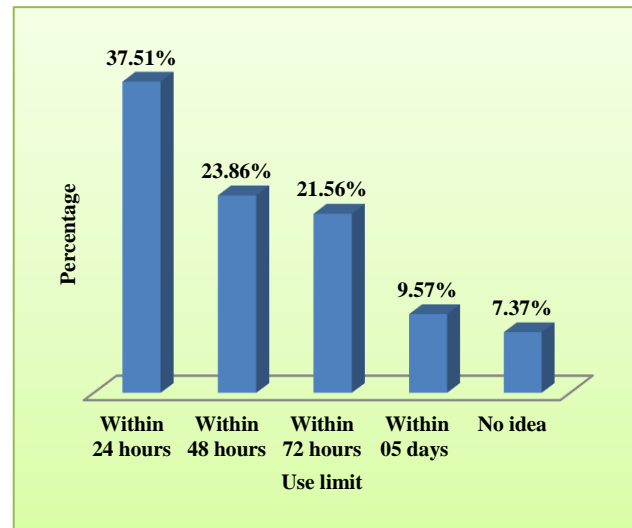


Figure 3: Distribution of female students according to the knowledge of the time of use.

Student practices of emergency contraception

Of the 732 students, 529 reported being sexually active (72.27%). The average age of first intercourse for these students was 17.6 years. About 15% of these students (14.93%) reported having an abortion at least once.

Only 23 students (4.35%) said they had consulted in a health center for emergency contraception. These are students who have had sexual intercourse without their consent and those who have been scared after consensual sex.

As for the use of emergency contraception, 235 students (44.42%) reported having already used the EC against 55.58 who never used it. Reasons for using contraception included condom breakage (25.10%) and unprotected sex (74.9%).

For EC users, the number of uses is listed in Table 2. The students (220) obtained their emergency contraceptive pills in pharmacies without prescription representing 93.61%. Other sources accounted for 6.38%.

After taking emergency contraception, 181 or 77.02% reported that they had seen their periods in advance, 20% had them at the correct date, and only 2.98% of women had a menstrual period delay. Of 235 emergency contraceptive users, 103 students (43.90%) had sought the opinion of the sexual partner before taking the contraceptive.

The opinion of the partner was not collected before the use of emergency contraception, in 56, 10% of female students.

Table 2: Distribution of female students by number of EC uses.

Number of uses	Number	Percentage
Once	154	65.53
2 times	49	20.85
3 times	24	10.21
Over 3 times	8	3.40
Total	235	100

Among UC users, 21.70% of female students do not believe in the reliability of the emergency contraceptive pill and 50.06% said that taking EC is not a good practice.

Figure 4 shows the distribution of users by time of use after sexual intercourse.

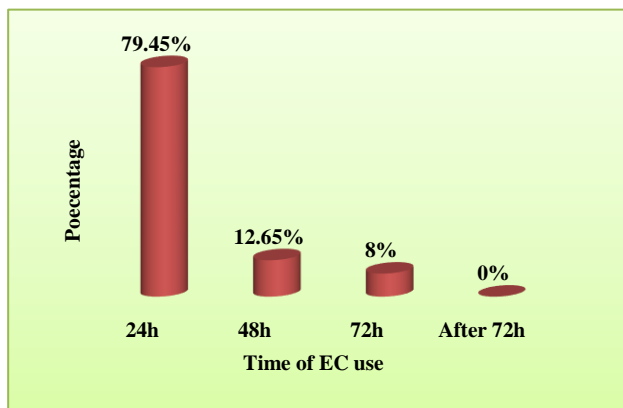


Figure 4: Distribution of students according to the Time of emergency contraception use after intercourse.

DISCUSSION

Nearly 9 out of 10 students (87.02%) had heard of emergency contraception. This rate is higher than those of Ekok et al, Ezebialu and Eke in Nigeria, Addo et al in Ghana who found respectively 71.2%, 51.6% and 51.4%.^{2,9,10} It is lower than that of Veloso et al in Brazil [1] which was 96%. The sources of information for students varied by series. In our series, the media is the main source of information (42.54%) while in Nigeria it is the peers and friends with 51%.⁹

Sexually active female students accounted for 72.27%. This rate is comparable to that of Ekok et al in Nigeria which is 69.2%. It is higher than those of Veloso et al in Brazil, Ezebialu and Eke in Southeast Nigeria and Gupta et al in India which are respectively 60%, 21.8% and 1%.^{1,2,8,9} This high rate is explained by the Westernization of African society. Indeed, African

culture and different religions do not tolerate sex outside marriage.

Female students who consulted in health center for emergency contraception accounted for only 4.35%, yet 44.42% of female students reported having used emergency contraception. Procurement of emergency contraception was directly in pharmacy without prescription in 93.68%. This could be explained by the fact that the emergency contraceptive pill is sold over the counter in pharmacies on the one hand, and on the other hand by the persistence of sociocultural restraints that are unfavorable to sex outside marriage. Indeed, some students, for reasons of modesty, and unwilling to expose themselves to the accusing eyes of other people do not go to health centers to obtain emergency contraception.

The reasons for using contraception are condom breakage (25.10%) and unprotected sex (74.9%). According to Moreau C, in France, the main reasons are slippage or condom breakage (30.7%) and forgetfulness of taking a pill (30.1%).¹¹ Unprotected sex, as a reason for taking EC, was between 18% and 23.5% depending on the age of the woman.¹¹ As a result, students take considerable risks, exposing themselves to sexually transmitted infections, including HIV.

The use of emergency contraception remains most often unique. The majority of users use it only once. In our series 65.53% took emergency contraception once, One-fifth of users (20.85%) took it twice and 13.61% reported using it three or more times. Our results corroborate with those of Caroline Moreau in France who found in her study that the rates of users who had taken emergency contraception one, two, three times and more, are respectively 67.3%; 21.7% and 11%.¹¹

The multiple use of emergency contraception is explained by the fact that the majority of female students being single, their sexual relations with men are usually casual and unprotected.

Only 21.66% of female students who had heard about EC knew about EC if it was effective within 72 hours of having sex. Fortunately, all EC users knew the time to use. This rate is lower than those of Ekok et al in Nigeria and Veloso et al in Brazil which were respectively 51.7% and 88.76%; but it is higher than that of Ezebialu and Eke in South-East Nigeria which is 9.5%.^{1,2,9}

Before the use of UC, sexual partner's opinion was collected by 45.90% of female students. This result indicates that most students have occasional sex and do not involve their partners sufficiently in decision making for emergency contraception.

Only 78.3% of student users reported that emergency contraception is effective. Indeed, emergency contraception is not 100% effective. Its effectiveness is greater if it is taken early after unprotected sex.⁷ The

effectiveness of emergency contraception is usually calculated by comparing the number of pregnancies observed after the use of emergency contraception (O) to the number of pregnancies expected in its absence (A), using the following formula: $1-O / A$.¹²

In our series, about 20% of female students reported that emergency contraception is not a good practice. This is related to the socio-cultural context in which the students live. The most common opinion equates emergency contraception with an abortive method. The same view was put forward by the US Food and Drug Administration at the time of George Bush.¹³

CONCLUSION

Emergency contraception gives women a last chance to avoid an unwanted pregnancy after unprotected sex. This is a method that is not very well known by students limiting its use. The main reason for users is unprotected sex. Because of the early onset of sexual intercourse and low contraceptive prevalence among female students, actions should be considered to increase awareness and promote this ultimate contraception.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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