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Emergency Contraception: A Global Overview of Knowledge, Attitudes and Practices Among Providers

Deborah Haggai
Department of Obstetrics and Gynaecology, Ahmadu Bello University, Zaria, Nigeria.

Abstract

Context: Recent concerns over teenage pregnancy, abortion and sexuality have pushed emergency contraceptive methods to the fore once again. The studies on knowledge and attitudes of providers are of particular importance, as they will have direct effects on potential users of emergency contraception.
Aim/Method: This paper is a critical and systematic review of available literature relevant to knowledge, attitude and practice of emergency contraception among providers. Literature was reviewed from the late 1980s to date, with articles accessed using PUBMED and MEDLINE through the Internet. Relevant references from published articles were also used to source more information. All articles were published in English. It summarises the work done so far in this area, with indications for future research.
Result: Most of the studies are in developed countries with very little research in developing countries. Most studies undertaken have been through telephone interviews, postal surveys, and focus group discussions. Some provider studies are targeted at a specific subtype of health professionals or different clinic settings. Majority of studies, however, point to the fact that knowledge of emergency contraception is poor among family planning service providers.
Conclusion: Women must know that it is possible to prevent pregnancy after an unprotected intercourse before they can look for this service. Knowledge of emergency contraception is therefore crucial for its use. Training and re-training of health professionals is needed to improve knowledge and increase awareness. Emergency contraception is financially, psychologically and physically less burdensome than abortion.

Key Words: Post-Coital, Contraception, Family Planning Services. [Trop J Obstet Gynaecol, 2003, 20: 153-158]

Introduction

Emergency contraception is defined as the use of drugs or devices to prevent pregnancy within a few days of unprotected intercourse [1, 2, 3, 4]. Sometimes, it is referred to as "morning after" or post-coital contraception. Although emergency contraception has been around for over 30 years, it has until recently been a very well kept secret. Emergency contraception provides a safe and effective means of post-coital treatment and has been estimated to prevent at least 75% of pregnancies expected from unprotected intercourse [5].

Unintended pregnancy continues to be a major global tragedy for millions of women, but one, which could be significantly reduced by emergency contraception. About 50 million pregnancies are terminated each year [6]. In the United States, about 50% of pregnancies are unwanted [4]. About 3.5 million unintended pregnancies occur each year in the United States of America (USA), with 1.6 million abortions being performed each year [7, 8]. It has been calculated that the widespread use of emergency contraception in the USA could prevent over one million abortions and two million unintended pregnancies that end in childbirth each year [9]. If all women who were raped got to use emergency contraception, about 22,000 pregnancies resulting from rape could potentially be prevented annually in the USA [10].

In the United Kingdom (UK), over 180,000 pregnancies are terminated annually [11]. Encouraging an increase in the use of emergency contraception has been identified as one of the few opportunities to reduce the number of unwanted pregnancies in the UK [12, 13, 14]. In Finland, the abortion rate has been quoted as 7.9/1000 for all fertile-aged women and 9/1000 for adolescents with a total number of 10,000 pregnancies being terminated annually [15].

In Africa, about five million abortions take place per year [16]. In Nigeria, which is the most populous country in Africa, the incidence of induced abortion is 25/1000 women of reproductive age per year. There are approximately 610,000 abortions performed in Nigeria annually, of which 60% are believed to be unsafe [17].

Almost every woman of reproductive age who is sexually active and fertile and wishes to prevent unintended pregnancy after unprotected intercourse can use emergency contraception [18].

Correspondence: *Dr. Deborah Haggai, Department of Obstetrics & Gynaecology, Ahmadu Bello University Teaching Hospital, Zaria, Kaduna State, Nigeria.*
E-mail: dhaggai@hotmail.com

A number of reasons have been offered for needing emergency contraception – firstly, many women have difficulties using their regular methods of contraception. Condom users may experience breakage or slippage, similarly the diaphragm or cervical cap may move out of place. Pill users may not remember to take their tablets regularly giving rise to failure of the method. Secondly, other potential users are women who have engaged in an unexpected sexual activity either by being forced (as in cases of rape), or coerced into having unplanned, unprotected intercourse. Thirdly, it is useful for women using the withdrawal method in instances where withdrawal occurred too late, or, fourthly, for women practicing the rhythm or calendar method with any miscalculation of the "safe" days for periodic abstinence. Fifthly, there are some women who are using no regular method of contraception due to either fear of, or discomfort with, side effects, or lack of knowledge of availability. Finally, emergency contraception is particularly suitable for adolescents because of their patterns of sexual behaviour and contraceptive use. They often do not plan their first intercourse, or may have infrequent intercourse with no contraceptive protection. In addition, adolescents practicing serial monogamy may use oral contraceptives effectively during a relationship and discontinue use when it ends, thus when a new relationship begins, they may be unprepared and use no methods. The only absolute contraindication for emergency contraception is pregnancy.

Methods of Emergency Contraception

In recent years, the Yuzpe regimen has been the most commonly used method of emergency contraception. It consists of two doses of a combination of 100 micrograms of ethinyl estradiol and 500 micrograms of levonorgestrel, the first dose taken within 72 hours of intercourse and the second dose 12 hours later [19, 20, 21, 22, 23]. During the 1960s and early 1970s, high doses of oestrogen were the standard regimen [24]. This method is sometimes referred to as the "five by five" regimen and it consists of five tablets of 1 mg of ethinyl estradiol given daily for five days [3, 4]. It is said to be as effective as the Yuzpe method, but produces more side effects. Thus, it is not commonly used by most clinicians. The Levonorgestrel regimen consists of two doses of 0.75 milligrams of levonorgestrel taken 12 hours apart starting within 72 hours of unprotected intercourse [25]. A recent randomised controlled trial by the WHO has shown that the levonorgestrel regimen was better tolerated and more effective than the Yuzpe regimen [26].

The copper bearing intrauterine device is a highly effective post-coital contraceptive with failure rates of less than 1% [27, 28]. It is used for up to five days after unprotected intercourse and is particularly appropriate for women who wish to use the device as a long term method of contraception.

Mifepristone (RU486) is highly effective as emergency contraception and the regimen consists of a single dose of 600 mg given within 72 hours of unprotected intercourse [20, 29]. The WHO multicentre randomised trial to assess the safety and effectiveness of lower doses of mifepristone (50mg and 10mg) showed that reducing the dose did not decrease its efficacy, but rather was associated with less disturbance of the menstrual cycle [30].

Knowledge, Attitudes and Practices of Providers in the Developed Countries

In the UK, Burton and Savage [31] conducted a postal questionnaire survey among health professionals in Tower Hamlets, London, to ascertain the knowledge and use of post-coital contraception. They found that only 34.6% of general practitioners (GPs) knew the correct time limit for intrauterine devices as post-coital contraception. This knowledge was even less for other health professionals. Some GPs gave too short an upper limit of one day for post-coital pills. It also showed that only a third of GPs had information about emergency contraception available for patients. Common reasons for not fulfilling requests for emergency contraception were either that the patient presented too late or had been involved in unprotected intercourse earlier in the same cycle. It was also noted that GPs received more requests for post-coital contraception than family planning doctors who had the best knowledge.

Poor knowledge among health professionals may mean that they don't know when women requesting post-coital contraception present inappropriately as was the case with some of the GPs who gave too short a time limit for emergency contraception and were among those who gave late presentation as a reason for not fulfilling requests for emergency contraception. There is need to ensure that health professionals are adequately and accurately informed about emergency contraception in order to inform women routinely during consultations.

In a national postal questionnaire survey by Webb *et al* [32] on the practice of post-coital contraception in all the 218 health authorities/boards in the UK, it was noted that 25.5% of the respondents prescribed

post-coital contraception 3-5 times a week. The post-coital intrauterine device was inserted less frequently. A consent form was always used by 38% of respondents and never by 42.6%. It was also noted that 22.1% of respondents did not think that mentioning failure rates was important and 44.1% did not consider future contraception to be an essential part of the counselling. Majority (89%) arranged routine follow-ups, which might not be necessary since, if patients are well informed and counselled on what to expect, only those with problems report back. Despite the high efficacy of intrauterine device, it was not available in all areas, thus women who may benefit from this method may be denied this option in certain areas.

Another survey by Walsh [33] to ascertain policies and practices in post-coital contraceptive provision showed that almost all the GPs (98.4%) provided post-coital contraception, but only 45.1% of hospital A&E departments provided same. Only 26.6% of GPs had trained reception staff. It was also noted that some respondents would not provide post-coital contraception to women who reported non-use or previous use of contraception. In this study, some GPs would insist for parental involvement for young women less than 16 years. These could be barriers for effective use of emergency contraception.

Ziebland *et al* [34] also conducted a study using semi-structured tape-recorded telephone interviews aimed at determining concerns and cautions amongst GPs about the prescription and deregulation of emergency contraception. The study revealed a wide variation in attitudes and practice towards post-coital contraception. Only 30.2% would provide emergency contraception as often as required. Despite well-documented evidence about the safety of emergency contraception, many GPs were still concerned about repeated use. These concerns may be responsible for the long list of absolute contraindications cited during the survey. There was also concern among the respondents that women might not benefit from medical consultation if emergency contraception was available over the counter (even though most of them did not offer such benefits in this study). There was also concern about women who might not seek long-term regular contraception, which has not been substantiated by any study, except that of Kosunen *et al* [15].

In the USA, Grossman *et al* [35] conducted a postal questionnaire survey of reproductive health care providers, family practitioners and emergency physicians. Most respondents prescribed emergency contraception very rarely, about 2-6 times in a year, depending on specialty. Intrauterine device insertion for post-coital contraception was rarely used. Almost 90% of respondents rarely spoke to patients about emergency contraception and only 10% had literature for patients. The study was done before the approval of the Food and Drugs Administration (FDA) in 1996 of emergency contraceptive pills as being safe and effective.

Gold *et al* [36], in a national survey of adolescent health experts on emergency contraception aimed at determining physicians' attitudes, counselling and prescribing practices of emergency contraception, found that 29% of respondents expressed concern about health risks posed by repeated use of emergency contraception and 20% were unsure of the health risks. Although 52% had no restriction on the number of times prescriptions of emergency contraception were issued to the same patient, only 34% would consider prescription before unprotected intercourse. Most of the respondents felt emergency contraception should not be available over the counter. It was also observed that 12% believed that providing emergency contraception would encourage contraceptive risk-taking behaviour and 25% thought it would discourage compliance with other regular methods. About 30% of providers would only provide emergency contraception within 48 hours while 11% used the cut-off point of 24 hours. Most of the providers required a pregnancy test and office visit. About 25% required written informed consent and 46% used timing of menses before prescribing emergency contraception.

In another study by Delbanco *et al* [37], to assess the knowledge and attitudes of a sample of obstetrician-gynaecologists toward emergency contraception, it was found that although 70% of physicians did not have objections or concerns about emergency contraception, they did not bother to inform most of their patients about the method. A postal questionnaire survey of family planning coordinators in Michigan [38] revealed that all were aware of emergency contraception, though only 60% of their facilities provided the service. The frequency of prescription was also very low (average of one woman per month in most facilities). Only 62% of providers said emergency contraception was a form of contraception while 20% said it was an abortifacient. In another study by Beckman *et al* [39], it was noted that providers demonstrated increased knowledge about emergency contraception after implementation of an educational programme, but they still had limited knowledge about medications, side effects and modes of action.

In summary, the studies among the providers of emergency contraception in the USA showed trends similar to what was observed in the UK – a situation of inadequate knowledge about emergency contraception and a reluctance to mention it to patients or issue prescriptions for it. More research is however needed to assess the present situation, now that dedicated products are available.

In Australia, Weisberg *et al* [40] showed that only 5% of respondents, in a survey of GPS, never had requests for emergency contraception, suggesting that most had received requests for it. There was also great variation in the prescription and administration of emergency contraception. Some admitted that they did not know what to prescribe and only 15% prescribed emergency contraception frequently. About one-third of the GPs never offered information about the method, while 18% gave out information only upon specific request, indicating that patients who are not aware of it will not ask and consequently, will not receive information about it. Such patients are likely to resort to abortion when faced with an unintended pregnancy. One reason for not giving information was the fear that women would stop using their regular methods of contraception if offered post-coital contraception.

Knowledge, Attitudes and Practices Among Service Providers in Developing Countries

There have been fewer studies conducted in developing countries to assess knowledge and attitudes of family planning service providers about emergency contraception.

A study in Vietnam [41] revealed that most of the respondents were familiar with the concept, but lacked accurate detailed information about the mode of practice. There were wide variations in the regimens used and many providers had never heard about the three main methods. Many participants mentioned other ineffective methods, including the local traditional methods of contraception. It was also noted that providers overestimated side effects and contraindications, although most of them are generally supportive of its use and they wanted information to be available in Vietnamese. The high abortion rates in Vietnam, estimated as the highest in Asia in 1992 despite the availability of over-the-counter oral contraceptive pills including post-coital pills like Postinor® [41], could be due to deficient knowledge of emergency methods of contraception among providers and potential users. Training and re-training of providers on the correct regimens of emergency contraception as well as the safety and contraindications will encourage them to routinely educate women about their use and subsequently reduce the abortion rates.

Another study conducted by the Society of Family Health in Nigeria [42] showed that in-depth knowledge of emergency contraception was lacking among providers. More than 80% of respondents approved of the method, but reasons for disapproval included religious beliefs, fear of side effects and equating it to procuring an abortion. About 29% of respondents believed it could cause permanent infertility. There was also inconsistency in prescribing effective methods, which could be due to poor knowledge.

Obionu [43], in a survey of the knowledge, perception and prescribing attitudes of emergency contraception among health professionals in Enugu, Nigeria also showed that only 39.3% of the respondents were aware of emergency contraceptive pills and even fewer respondents (26.8%) were aware of the potential use of intrauterine devices as emergency contraception. Nearly two-thirds of the respondents had never prescribed emergency contraceptive pills, and lack of knowledge of proper use was a major reason for not prescribing them.

Comparison of the Experience in Developing Countries and the Developed World.

It is important to note that the findings were similar in both developed and developing countries.

- ***Poor Knowledge***
  This was demonstrated by the widespread lack of confidence in prescribing emergency contraception and lack of dissemination of information about the method [31, 36, 40, 42]. The restricted time limit by some providers to 24-48 hours instead of 72 hours is probably due to inadequate knowledge. The wide variation in the regimens used and the low frequency of prescription by the providers are also indications of poor knowledge [31, 32, 35, 38, 41, 42].
- ***Overestimation of the Health Risk***
  Some providers overestimated the health risks associated with emergency contraception [36, 41]. Others felt that the repeated use of emergency contraception poses health risks. This might be responsible for the wrong information given to potential users.
- ***Over-Medicalisation of the Consultation***
  Unnecessary use of pregnancy tests, pelvic examination, consent forms and medical visits can limit access to emergency contraception [36].
- ***Inadequate Training and Poor Use of Nurses and Other Staff Involved Providing Services.***
  Lack of training of reception staff [33, 42], who are usually responsible for initial contact with the

patients, has resulted in a bad impression being created in the minds of patients in some studies, acting as a barrier to effective services. Some providers lack training in some methods of emergency contraception such as the insertion of the intrauterine device [32]. Thus women who might have benefited from the method are denied access if they met such providers.

- ***Judgmental Attitudes***
  Some earlier studies had shown that some providers would only prescribe emergency contraception to rape victims [35], while some would not prescribe emergency contraception for non-users of a regular method of contraception [33]. Some providers were also reluctant to prescribe emergency contraception for clients to keep prior to an episode of unprotected intercourse, while some were opposed to over-the-counter availability [34].
- ***Support for Emergency Contraception***
  The studies done in both developed and developing countries showed that most providers are supportive of emergency contraception [37, 41, 42].

Conclusion

Although emergency contraception has been around for more than 30 years, it has until recently been a 'well kept secret' among a few. Increases in knowledge are hampered by a common tendency to confuse emergency contraception with abortion and by the frequently observed attitude that an individual woman's need for emergency contraception is an indication of an irresponsible attitude to sexuality and contraception. Training and re-training of health professionals is needed to improve knowledge and increase awareness.

The new interest in emergency contraception should, one hopes, lead to myths and misunderstanding being dispelled. Providers will become better informed and more aware and may start, proactively, to inform their patients about it.

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