Knowledge of Emergency Contraceptive Pills among Hungarian Women Presenting for Induced Abortion or Seeking Emergency Contraception

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Was wissen Frauen, die sich in Ungarn zu einem Schwangerschaftsabbruch oder zur Verschreibung der Pille danach in einer Klinik vorstellen, von der Notfallkontrazeption?

Abstract

Aim: To compare the differences in contraceptive characteristics and the knowledge of emergency contraception (ECP) among women who used ECP after unprotected intercourse and those who sought an abortion.

Methods: A questionnaire survey was conducted in a Hungarian university hospital among women for whom ECP was prescribed after unprotected intercourse (n = 940) as well as women who presented for the termination of pregnancy (n = 1592) between January 1, 2005 and November 20, 2006. Their knowledge of ECP and their experience with and attitudes toward ECP use were targeted.

Results: The availability of ECP was well known (87.9%), but it was still greatly underutilized: applied by only 13 of the 1592 women who resorted to abortion. Primarily, the ECP group consisted of those who experienced a condom failure significantly more often (odds ratio [OR] = 4.1), followed by those cases where ECP applications was a consequence of not using any kind of contraception (OR = 3.8). Fewer than one third (32%) of the abortion seekers had previously used ECP, and only one fifth knew how to obtain it. Appropriate awareness of ECP was influenced by information obtained from health-care providers (adjusted odds ratio [AOR] = 3.93) or school education (AOR = 1.82).

Conclusions: More thorough education is needed to provide a deeper knowledge of ECP use during contraceptive counseling for women seeking abortion, including those contraceptive mishaps where unintended pregnancy can be prevented by ECP.

Zusammenfassung

Ziel: Diese Arbeit untersucht einerseits das Wissen der Frauen um die „Pille danach“, andererseits vergleicht diese Studie die verschiedenen Verhütungsmethoden, welche die Frauen, die um die „Pille danach“ oder Abort ansehen, verwenden.


Schlussfolgerung: Bessere Ausbildung der Frauen in Bezug auf die Existenz, Anwendung und Beschaffung der Pille danach könnte die Rate der Aborte senken.
Introduction

A reduction of the unintended pregnancy rate is a national health priority. Abortion rate (i.e. the number of abortions per 1000 women of reproductive age) in Hungary fell significantly from 35.6 in 1990 to 19.1 in 2006 in Hungary [1]: the corresponding data are lowest in Germany and Switzerland worldwide (≈ 7 per 1000 women in 2008) [2, 3]. Although more than every fourth pregnancy (28.2%) in Hungary leads to abortion [1], emergency contraception (ECP) has not yet been introduced as non-prescription medication, highlighting the need for comprehensive medical counseling. The annual number of prescriptions in Hungary is quite low, amounting to only approximately 25 000 (annual ECP use per capita: 0.00255) (in-house statistics of the pharmaceutical company Richter; whereas ECP is prescribed in Germany far more frequently, totaling about 400 000 prescriptions per year [annual ECP use per capita: 0.00491]) [1, 3]. Although ECP is used to reduce the risk of pregnancy after unprotected intercourse [4, 5], its OTC availability did not reduce abortion rate in the UK [6]. Awareness of ECP is not sufficient to use it [7]: recognition of the need and the knowledge of how to receive it are also important factors. As far as the literature is concerned, there have been relatively few analyses of the factors which promote the use of ECP rather than simply not applying any backup contraceptive method after unprotected sexual contact. The purpose of this study was to determine the factors influencing “the appropriate knowledge” [8] (i.e. the awareness of how to receive ECP and by what time it should be taken following unprotected intercourse) through a comparison of ECP users with those who requested abortion, in terms of contraceptive knowledge, attitude and specification.

Materials and Methods

Participants

In 2006, 940 (78.0%) out of 1205 women taking ECP and 1592 (88.7%) out of 1794 consecutively recruited women requesting abortion voluntarily completed an anonymous multiple choice questionnaire at a university hospital in Hungary.

Data collection

This structured, self-reported Hungarian-language questionnaire recorded the age, type of residence, marital status, level of education, number of previous pregnancy terminations and the number of live births of the recruited participants, and information about their contraceptive use in the cycle when ECP had been used or in the cycle resulting in their procured abortion (at the time of conception). The questions about ECP dealt with their awareness of ECP (i.e. whether they know that ECP exists), their knowledge of the time limit (i.e. an ECP can be applied within 3 days after an unprotected sexual intercourse), the way to obtain ECP (i.e. through a prescription provided by a gynecologist/general practitioner [GP]), previous ECP use and intended prospective use of ECP. In Hungary, ECP containing levonorgestrel was prescribed in Germany, whereas ECP is prescribed in Germany far more frequently, totaling about 400 000 prescriptions per year [annual ECP use per capita: 0.00491]) [1, 3]. Although ECP is used to reduce the risk of pregnancy after unprotected intercourse [4, 5], its OTC availability did not reduce abortion rate in the UK [6]. Awareness of ECP is not sufficient to use it [7]: recognition of the need and the knowledge of how to receive it are also important factors. As far as the literature is concerned, there have been relatively few analyses of the factors which promote the use of ECP rather than simply not applying any backup contraceptive method after unprotected sexual contact. The purpose of this study was to determine the factors influencing “the appropriate knowledge” [8] (i.e. the awareness of how to receive ECP and by what time it should be taken following unprotected intercourse) through a comparison of ECP users with those who requested abortion, in terms of contraceptive knowledge, attitude and specification.

Knowledge, attitudes, and use of ECP

Table 2 presents an overview of the ECP-related questions. An important finding was that the study groups had applied the ECP similarly at an early stage (33.0% in the ECP group vs. 31.5% in the abortion group, p < 0.001). Similarly at an early stage (33.0% in the ECP group vs. 31.5% in the abortion group, p < 0.001), whereas the two groups were similarly educated. The percentage of women having at least one child was significantly higher in those seeking abortion than in the ECP group (16.7% in the ECP group vs. 35.0% in the abortion group, p < 0.001). Similarily, the number of previous abortions was significantly higher in their population compared to the ECP group (19.5% in the ECP group vs. 55.6% in the abortion group, p < 0.001). More ECP users’ partners wore a condom (59.4% in the ECP group vs. 26.4% in the abortion group, p < 0.001) at the time of conception, whereas combined oral contraceptives were almost equally used in the two groups (11.0% in the ECP group vs. 11.9% in the abortion group, p > 0.05). More respondents in the abortion group had experienced problems with periodic abstinence techniques (3.0% in the ECP group vs. 28.0% in the abortion group, p < 0.001) or withdrawal (11.7% in the ECP group vs. 23.1% in the abortion group, p < 0.001). Contraceptive ring, patch and injection, intrauterine device, spermicides and vaginal douche were not represented among those who used ECP. However, these methods were employed by a small number of the women who sought abortion. Only 13 women who requested abortion (0.8%) had used ECP unsuccessfully after the contraceptive mishap. The male partners of seven (54%) used a condom and 3 (23%) of them had not had recourse to any method for occasional intercourse, 2 (15.4%) of them had experienced failure while taking OC, and one (7.7%) of them had a coitus interruptus failure.

Statistical analysis

Data were entered and analyzed by means of the statistical software package SPSS 17.0 (SPSS Inc., Chicago, IL, USA). Univariate comparisons were assessed by the unpaired t-test and the χ² test, while a logistic regression model was constructed to evaluate the factors simultaneously influencing “the appropriate knowledge” [8] of ECP use. P-values < 0.05 were considered to be statistically significant. The medical ethics committee of the University of Szeged had approved the study. Informed consent was obtained from all participating women and from the legal guardians of minors under 18 years of age. The study was carried out according to the principles of the Declaration of Helsinki.
ECP group vs. 20.0% in the abortion group, $p < 0.001$) were also significantly more favorable among ECP users. A positive attitude toward ECP use was generally expressed in both groups, despite the fact that many abortion seekers ($n = 759$) had not realized the need for ECP (this amounts to 48% as patient failures that might have been avoided through the use of ECP). The women who presented for abortion and who had previously used ECP were asked about the reason for not using it this time: the most important motivations were that they had not realized the need for using ECP and the neglect of the possibility of conception (data are not shown in table), as described in a Swedish study [9, 10].

**Source of information for ECP**

Table 3 lists the data relating to the acquisition of information regarding ECP. The sources of information were significantly different in the two groups; the media, friends and health-care providers were identified as the main sources of information concerning ECP by most respondents.
Multivariate logistic regression analysis revealed that previous ECP use (adjusted odds ratio [AOR]: 4.01, 95% CI: 2.31–6.54) and the information primarily obtained from electronic media (AOR: 3.29, 95% CI: 1.48–5.20), health-care providers (AOR: 3.91, 95% CI: 1.83–7.22) and sexual education in school (AOR: 1.83, 95% CI: 1.11–3.21) promoted “the proper knowledge” of ECP usage among the abortees most significantly. The contraceptive failure with a condom was also related to a higher knowledge of the correct management of access to ECP (AOR: 2.1, 95% CI: 1.83–3.82). Higher age (AOR: 1.3, 95% CI: 1.05–1.89) and living without a partner (AOR: 5.55, 95% CI: 2.77–9.09) made the awareness of the correct management of ECP use more likely (Fig. 1).

Discussion

Our more striking results are that ECP users favor different contraceptive methods (predominantly barrier method, withdrawal and patient failure with OC) than abortion seekers (periodic abstinence, withdrawal and condom) which reflect mainly the different sociodemographic characteristics of the groups. The contraceptive patterns of ECP users in Hungary differ in Germany where ECP is prioritized mainly after an unprotected intercourse (55%), condom failure (34%) and method failure of OC usage (10%) [11]. ECP proved to be preferred by young women in our region as in Germany [11], but in contrast with the finding of Sørensen et al. [12] that ECP users were generally older than women with an unwanted pregnancy after unprotected intercourse. Furthermore, education was not a distinguishable factor in opting for ECP, likewise in contrast with the conclusion of the Danish study [12]. Moreover, abortion seekers were more likely to be unaware of ECP as a backup method and were not well informed upon the availability of the ECP, whereas more ECP users lived in an unstable relationship. By contrast, previous use of ECP was of similarly low prevalence in the two groups.

Gaining information from reliable sources (education, health-care providers and media campaigns) was an important influential factor promoting a good knowledge about the management of ECP use, which seems to be in contrast with the literature findings [13,14]. It seems that condom users know the correct em-
ployment of the ECP as in a French study [15], and they com-
monly live without a partner (503 out of 558 [90.1%] lived with-
out a spouse, not presented in the tables). Our logistic regression
demonstrated that correct knowledge of ECP was promoted by a
higher age and previous ECP use. The prescription status of ECP might act as a moderate obstacle to
access ECP in Hungary in view of the small number of abortion
seekers who had administered it. Interestingly, almost half of
the abortion seekers (43%) experienced a contraceptive failure
that might have been avoided if they had sought ECP (i.e. patient
failure of the contraceptives), even though the vast majority
(87.9%) were aware of ECP, as in other countries [8, 12, 16, 17],
and nearly one-third of them (31.5%) might even have been able
to prevent a contraceptive mishap since they used ECP before.
Although the female population requesting abortion in Hungary
[7] is aware of the ECP, specific knowledge of the time span be-
tween unprotected intercourse and access to ECP usage is rather
difficult, as reported by other authors [9].

Conclusions for Clinical Practice

Only few abortion seekers had used ECP and they did not recog-
nize the need of the ECP in most of the cases, even though they
were aware of it and had a positive attitude towards it. Like Lar-
sson et al. [9], we suggest that new contraceptive counselling
strategies should be developed for women presenting for in-
duced abortion, providing them with the details of appropriate
ECP use so as to avoid unwanted pregnancy in the future. It
would be beneficial to improve public knowledge about the
timing-related efficacy of the ECP and the contraceptive failures
for which ECP can be used. A specific media campaign is required,
targeting women of advanced age and who have experienced a
previous unwanted pregnancy, focusing on the fertility risk with
contraceptive failure and the usefulness of ECP.

Conflict of Interest

None of the authors has a political, personal, intellectual, com-
mercial, financial or religious conflict of interest, and/or other rel-
ation to manufacturers of pharmaceuticals, laboratory supplies
and/or medical devices or to commercial providers of medically
related services.

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