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Knowledge of emergency contraception among women of childbearing age at a teaching hospital of Karachi

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Abstract

Objectives: To assess knowledge and attitudes about Emergency Contraception among women of childbearing age in Karachi, Pakistan.

Methods: A questionnaire based survey was conducted on 400 married women, attending the family practice clinics at a teaching hospital in Karachi, Pakistan from July to December 2006. Questionnaire was administered to women at the family practice clinic-seeking level of knowledge of emergency contraception (EC) and attitudes towards its use, Ethical requirements of informed consent and confidentiality were ensured Data was entered into Epi data and analyzed in SPSS.

Results: Eighty-eight percent of women were not aware of EC. 83% were housewives. Only a small number (11.5%) ever used EC to prevent pregnancy, out of those, the correct timing of effectiveness of post-coital pill was known to only 40% of women while none of these women were aware of the existence of Intra Uteriune Contraceptive Device (IUCD) insertion as an option for EC About 50% of women identified general practitioners or family medicine clinics as their main sources of knowledge about EC. Increased advertising was considered desirable by 72% while 37% considered over the counter availability of EC pill desirable and only 36% of women were uncomfortable to use EC because of religious reasons.

Conclusion: EC has a potential to offer women an important option for fertility control. Lack of women's knowledge about EC use and availability may account in part for its limited use. There is a need to improve women's education about EC. The primary health care providers can play a major role in informing their patients about emergency contraception (JPMA 59:235; 2009).

Introduction

Unwanted pregnancies are a major public health problem for both developing and developed nations. Unplanned/mistimed pregnancies generally result from ineffective use of contraceptives and result in induced abortions.¹ Unintended fertility remains a major concern in developing countries, with 120 million women wanting to postpone childbearing or limit the size of their families. Induced abortion is far more common in Pakistan and roughly one out of seven pregnancies terminate in induced abortion.² Attention has been focused on the potential for emergency contraception to reduce the number of unwanted pregnancies and thus abortion rate.³

Population Growth Rate (PGR) of Pakistan has declined from over 3 percent in previous decades to its current level of 2.1 percent per annum. Pakistan still has an unacceptably high rate of growth compared to other developing countries. However, the reduction in fertility has not been accompanied by a concomitant reduction in unwanted pregnancies.⁴

Although Emergency Contraception Pills (ECP's) have been theoretically available for over 30 years, in most countries around the world they remain a relatively unknown and underused method. Lack of knowledge about back-up support and use of Emergency Contraception (EC)

in case of method failure or unprotected sex are pertinent factors that lead to unplanned/mistimed pregnancy. While many governments are taking steps to put Emergency contraception into women's hands, millions of women around the world who could benefit from EC have never heard of it. Emergency Contraceptive Pills (ECP) can serve as a backup and can reduce the number of unintended pregnancies and abortions. Emergency post coital contraception may be defined as the use of a drug or device to prevent pregnancy after intercourse; it has been shown to be safe and effective.⁵

Different methods of EC are available including: the use of combination estrogen and progestin, progestin alone and post coital insertion of an intrauterine device.⁶ Popular methods of EC include the administration of two doses of a combination estrogen and progestin pill (Yuzpe method) or two doses of progestin alone taken 12 hours apart of unprotected intercourse, with estimated efficacies of 75% and 85%, respectively.⁷

Currently, two 0.75mg doses of levonorgestrel are licensed for use within 72 hours of unprotected sex. Recent results from a multicenter WHO trial also found good efficacy with a single dose of levonorgestrel initiated up to 120 hours after intercourse.⁸ An Intrauterine Device (IUD) can be inserted up to 5 days

after the first act of unprotected sex. Progestin only pills reduce the chance of pregnancy by 85%, combined hormone EC pills by 57% when taken within 72 hours of unprotected sex. Insertion of Copper T IUD reduces the chance of pregnancy by 99%.⁹

WHO considers EC a safe, convenient and effective method of modern contraception. Despite being an effective and safe method EC is still not widely used. Unfortunately, these available methods are poorly utilized due to several factors that include poor knowledge of each method and its effectiveness.

Innumerable articles have been published on emergency contraception in the developed world on efficacy, safety and user issues, information in this content in developing countries is limited at present. Stance, further studies are warranted. To date, two studies

Table 1: Socio demographic characteristics of the study participants.

	Number	Percentage
Mean age in years	35.5±6.9	
Education		
Uneducated	29	7.3
Primary education	50	12.5
High school graduate	172	43.0
others	114	28.5
Occupation		
working	35	8.8
House wife	65	16.3
House hold income		
Median(IQR)	15000 (22000)	
<15000	335	83.8
15000	65	16.3
>15000	41	10.3
Number of children		
None	167	44.6
one	61	15.3
Two	82	20.5
More than two	88	22.0
	169	42.2

on the awareness or use of emergency contraception in Muslim countries^{10,11} have been published. An extensive internet literature search from Pakistan has failed to show any study particularly focusing on Knowledge and attitudes of women regarding EC. The objectives of this study were to survey married women of child bearing age at a family medicine clinic with regard to their current knowledge and attitudes towards EC, as well as to identify barriers to its use.

Patients and Methods

This cross-sectional study was conducted at Family Practice Center of Aga Khan University Hospital, Karachi from July to December 2006. The ethical requirement for the

Table 2: Emergency contraception question 1: If a woman has unprotected sex is there anything she can do in the 3 days after intercourse to that will prevent pregnancy? (n=400).

Response	Respondents	Percentage
No	116	27.5
Yes	40	11.5
Don't Know	244	61

study was fulfilled. Sample size was calculated as 400 and convenient sampling was used to distribute the questionnaire. It was single pager questionnaire, pretested among a group of 10 women.

The data of this survey was collected on a structured pre coded 13 item questionnaire by the principal investigator. The study was carried out on married women of child bearing age. Unmarried women were not included in the study due to cultural reasons and their shyness to answer questions relating to sex.

This questionnaire included various aspects of EC, including knowledge, past experience of EC use, correct timing, source of knowledge, and opinion regarding willingness for EC to be advertised widely. Most questions were closed ended with space for additional comments.

In the first section of the questionnaire we collected demographic information such as age, parity, professional status, and monthly income of the participants.

All women eligible for the emergency contraception were first asked "if a woman has unprotected sex is there any thing she can do in the 3 days after intercourse that will prevent pregnancy?" Women who responded "yes" were then asked further questions like "what can she do." Those who said "no" or "don't know" were not considered as having knowledge of emergency contraception and further questions were not asked.

Epi Info was used for data entry and statistical package for social sciences (SPSS) software programme for analysis.

Results

A total of 400 women were included in the survey. The mean age of respondents was 35.5±6.9 years. Of all 83.8% described their occupation as "housewife" while 16.3% were "working".

The demographic characteristics of the respondents are shown in Table 1.

Of the 400 women asked about emergency contraception, only 40 knew and were further asked the questions regarding the knowledge and attitude towards EC.

More than half of women (61.0%) stated that they did

Table 3: Source of knowledge about EC.

	n=40	%
Magazine	6	15
Friend	5	12.5
Family member	8	20
Doctor/family planning provider	20	50
Internet	1	2.5

not know if any thing could be done in 3 days after unprotected intercourse to prevent pregnancy. Nothing could be done was stated by 27.5% women and only 11.5% stated that there was some thing a woman could do in 3 days after unprotected intercourse to prevent pregnancy. (Table 2)

Among 40 women who answered that there was something a woman could do to prevent pregnancy after unprotected sex, were asked "what can she do?" Correct responses included: use of ECP, morning after pill, have an IUCD inserted, and take extra or high dose birth control pills.

The majority 38 (95%) stated that they can use ECP. Only 2 (5%) said they will use extra birth control pills. None of the women were aware of the use of post coital use of the IUCD. Younger women average age 25 to 30 years were more likely to know about EC than older women.

Out of 40 women who were aware of EC, only 13 (32.5%) had practiced emergency contraception. Once aware that EC reduces the chance of pregnancy by up to 75% , majority 31 (77.5%) were willing to use it to prevent pregnancy, out of which 26 were house wives and 9 were working women, whereas 5 (12.5%) said they would not use it at all for religious and moral reasons.

The correct timing of effectiveness of post coital pill (up to 72 hours after unprotected intercourse) was identified by 16 (40%) women. Of all 10% believed that it should be taken within 48 hours, 35% were of the opinion to use it immediately after, the morning after or within 12 or 24 hours of unprotected intercourse, and 10% reported it could be taken within a week of unprotected intercourse. Eighty five percent (n=36) of women had a family planning visit in the last year while 15% did not. All women who identified the correct timing did not have an access to family planning provider in the past year. The woman who had a family planning visit had low levels of knowledge about the correct timings of EC. The high levels of knowledge regarding correct timing of EC was found among women with graduate and above education (75%) as compared to undergraduates (25%).

Respondents who were aware of EC most commonly reported that they had first heard about EC from doctor/family planning provider 20 (50%) or from a family

member 8 (20%). Other sources of information about EC were the magazine 6 (15%), friend 5 (12.5%) and internet 1 (2.5%). (Table 3)

Wide advertisement of emergency contraception was favoured by 72.5% women who answered "yes," while 25% were against increased advertisement and said "no," and 2.5% were neither against nor in favour of advertisements and stated they were "unsure."

Response to the question about their attitude towards ECP availability over the counter without prescription, sixty percent of women answered "no" to this, only 37.5% believed it should be available, while 2.5% were "unsure."

Almost twenty three percent (n=9) participants would use the right to decide individually about the use of EC if need arose. However, seventy five percent (n=30) would discuss it with their partners before use. Only 2.5% said that this decision will be taken by their husbands only.

Religion was not found to be a major hindrance for EC use. Only 14 (36%) women stated they had objection due to religious values. Majority, 53.8% believed that religion does not influence its use, while 10% were unsure.

Discussion

It is a fact that women experience a high level of anxiety and fear of unwanted pregnancy in the immediate period after unprotected sex and they practice different methods to avoid pregnancy which shows a level of desperation .Pakistan was among the last nations in South Asia to experience a substantial and sustained decline in fertility. Demographic estimates for the period from the 1960s through the 1980s indicate that women on an average had six or more births over their reproductive career (as represented by the "total fertility rate" [TFR]). However, the reduction in fertility has not been accompanied by a concomitant reduction in unwanted pregnancies. One in three currently married women in Pakistan are at risk of an unintended (mistimed or unwanted) pregnancy.¹²

Women are aware of high mortality and morbidity risk from seeking an abortion but nevertheless opt for this approach to attain their goal of a small family size rather than for a modern method of contraception.¹³

It is important that unwanted pregnancy be prevented through effective contraceptive practice rather than abortion. Reproductive health services can give a chance to these women to improve their conditions and life.

Family planning is about preventing needless deaths. It is not a political but a medical term which addresses the health concerns related to pregnancy and maternity. Countries that fail to provide adequate resources in this area

are at risk of having shattered families, pointless deaths and unnecessary sufferings.

Without knowledge of reproductive alternatives women cannot demand what has become a recognized right for women living in the industrialized nations, like to have an access to safe, effective, affordable methods of family planning of their own choice. (ICPD programme of action 1994). Knowledge and timely Access to family planning and reproductive services can give a chance to improve the present conditions in the developing world.

ECP's have become more available in many developing countries. Government of Pakistan is making policies to handle the situation and now Emergency contraceptive pills are being marketed with the name of ECP, Emkit, Emkit Plus, still many women who could benefit from ECP'S have never heard of it.

Understanding current knowledge and attitude and practices of the women with regard to contraception and EC is necessary. This is the first report on knowledge and attitudes of women about emergency contraception in Pakistan. Contraception is generally accepted in Islam¹⁴ and it is often considered important in Pakistan for child spacing. In our study the awareness of EC was very low, but is almost similar to what has been reported in other developing countries including Mexico, India and south Africa.^{15,16}

The awareness of EC among women in Pakistan and India is almost the same which could be due to similar background of women, their status and living conditions.^{17,18}

As compared to other Muslim countries it is higher, 6.1% of Kuwaiti women had heard of EC and 8% of 250 women of child bearing age in Tehran knew about emergency contraception.^{10,11} However awareness of IUCD emergency contraception has increased over the last two decades.

Overall, awareness is lower across all age groups in South East Asia and other Islamic countries vs recent data from Europe and North America.^{19,20}

The 40 (11.5%) women who said that they could do something to prevent pregnancy after unprotected intercourses were asked what could be done? It was surprising that majority knew the name ECP 38 (95%), only 2 (5%) mentioned extra birth control. Participants were asked to indicate other methods used to avoid pregnancy, few women mentioned that they will wear high heel sandals, jump after intercourse or put cotton soaked in antiseptic solution or oil in the vagina. In their opinion all these measures would help them to avoid conception. Noteworthy, however are the similarities between these

methods and those mentioned by Lassey.²¹ Even when women have heard of EC, almost all studies show that they do not have sufficient knowledge to be able to use EC effectively.

As mentioned by George et al,²² in our study also a pattern of misinformation or partial knowledge ran through out the responses when asked about correct timing and effectiveness of its use. Knowledge was greater among younger age group (25-30 years) They were more likely to know about EC than women in their 40's. This is almost similar when compared with other studies.²³

In fact, we found that a larger proportion of women who were aware of EC had been told about EC by a health care provider. All women who identified the correct timing of EC did not have an access to a family planning provider. The women who visited a clinic had low levels of knowledge about correct timings. This is unfortunate as this might be related to insufficient counseling or knowledge provided by health professionals. In light of this finding, education approaches may be useful in increasing EC awareness. EC needs to become part of routine reproductive health counseling and specific health service interventions. To improve EC, awareness should be designed, and implemented.

As mentioned by Rebecca and Eleanor, most women in our study also learnt about EC through a health care provider (50%).²⁴

The media /magazine were cited even less frequently as a source of knowledge. Majority (72.5%) of women surveyed, support the increased advertisement of emergency contraception. Two thirds of women (77.5%) reported they would be willing to use EC in future, which is almost same as reported by N.Takkar.¹⁶

When asked should EC be available without prescription more than half (60%) were against it, which is contrary to the western world,²⁵ and felt that it is embarrassing to ask for EC, only 37.5% were in favour.

Our study has several limitations. First, this was a relatively small survey conducted in one part of the city of Karachi. Further investigation in other settings need to be done. Secondly, this survey was conducted among individuals attending public health clinics, who are likely to have higher health-related knowledge than women from a general population sample. Our study focused on patients coming to a family medicine clinic in a tertiary care hospital, the result of awareness may be higher in this sample compared to other parts of the city and country.

Additionally, we used a questionnaire to gather information and this imposed limitations. We could not further explore their ideas and concerns regarding use of EC. In depth interviews and discussions would have been more helpful in this regard.

In conclusion our data confirms that EC options are underutilized because of a lack of patient awareness. EC is an important option for women exposed to unprotected sex who wish to avoid pregnancy. Due to the many obstacles to knowledge about EC, Contraception education, especially directed towards married women, should include disseminating enhanced information about postcoital contraception options keeping into account the local and cultural conditions.

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