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Research Article

Knowledge attitude and practice (KAP) of emergency contraceptive pills among women of reproductive age group attending AIIMS OPD Raipur (C.G.)

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ABSTRACT

Background: India's population as per 2011 census was 1.028 billion. Even though a wide variety of contraceptive choices are available in India, contraceptive prevalence in the country is only 56% as per the WHO global health statistics 2012. Most couples in India do not want to use a contraceptive method on a long-term basis hence unwanted and unplanned pregnancies are common. Emergency contraceptive Pills are largely underutilized in India resulting in women resorting to unsafe or illegal abortions contributing 8% to the cause of maternal mortality in India, which if taken correctly can reduce the risk of an unintended pregnancy to the range of 75-79%. The objective of the study is to assess knowledge, attitude& practice (preference &experience) of emergency contraceptive pills among women of child bearing age.
Methods: A cross sectional study was conducted among 328 females of reproductive age group. Data was collected using an anonymous pretested structured questionnaire.
Results: Out of 328 subjects 300 women gave consent for the study. Around 56% women had heard of emergency contraceptive pills but only 19.3% had ever used it. Detailed and specific knowledge of ECPs are poor and misinformation is high. This was because main source of information was through electronic media which are unreliable and gives limited information.
Conclusion: The study concludes that in spite of having awareness about EC Pills there is great knowledge and attitude gap in the community. Public information strategy needs to be devised to generate awareness and bring attitudinal change among females for emergency contraceptive pills. Support from women advocacy groups is thus necessary and their views, apprehensions, doubts and perceptions have to be adequately addressed to make their occasional use to prevent unwanted pregnancy is likely to bring down the load on the therapeutic abortion services.

Keywords: Emergency contraception (EC), Emergency contraceptive pills (ECP), Over the counter (OTC)

INTRODUCTION

India's population as per 2011 census was 1.028 billion, second only to China in the world. India which accounts for 2.4% of the land area is already supporting around 17% of the world population.[1] The TFR for the country remained constant at 2.6 during 2008 and 2009.[2] About 210 million pregnancies that occur every year 80 millions are unintended, resulting in 30 million unplanned births, 40 million abortions and 10 million miscarriages and only 60% of abortions done in unsafe conditions.[3-5] Majority of these cases are done in rural areas having inadequate facilities and done in an unhygienic and unscientific way. According to the consortium on national consensus for medical abortion in India (2008), around 20000 women die every year due to abortion related complications. Most abortion-related maternal deaths are attributable to illegal abortions hence contributing 8% to the cause of maternal mortality ratio in India.[6,7]

Estimates derived from data from the World Health Organization (WHO) predict that at prevailing rates, one in five women in developing countries will be hospitalized for complications of unsafely performed abortion at some time in their lives.[8]

People at large have experienced the impact of population explosion on all spheres of life in modern society, perceiving also an unmet need of its control and regulation. Emergency contraception, a type of contraceptive intervention developed by research and trials during the last decade in order to reduce the occurrence of unintended pregnancies and abortion is one direction being taken to address the issue. ECPs are effective for preventing conception due to unplanned/ unprotected sex. This helps to reduce unwanted pregnancy and associated abortions, maternal mortality and morbidity. For every act of unprotected sexual intercourse the chance of conception is about 8 per cent. Following the use of emergency contraceptives the risk is brought down to 2 per cent, a significant two third reduction in pregnancy rate. In the Indian scenario, where more than 50 per cent of the eligible couples do not practice any form of regular contraception and are unaware of emergency contraception, the percentage of women at the risk of conceiving, at any given time, is always very high.[9]

It has been documented worldwide that introduction of a new contraceptive method increases the CPR by approximately 3%[10] and availability of contraceptive at the hour of need is the major issue in addressing the unmet need of contraception. Department of health & family welfare introduced 'Emergency contraceptive pills' (E-pills) in the national family welfare programme during the year 2002-03. This contraceptive is used within 72 hours of un-protected sex. ECPs have been included in national family welfare programme and efforts are being made to utilize them at all levels of public health system. ECP has been included in the ASHA kits to address the issue of unwanted pregnancy at the community.[11] Emergency contraceptive are described as cost-effective form of "contraceptive first aid".[12] The Indian medical association advises that high doses of combined oral contraceptive containing ethinyl estradiol and levonorgestrel (Yuzpe regimen) and copper releasing IUDs such as CuT 380A can be used as emergency contraceptive, but the drug controller of India has only approved (in 2001) levonorgestrel 0.75 mg tablets for use as emergency contraceptive pills. On August 31, 2005, non-prescription, over-the-counter OTC access to levonorgestrel-only emergency contraception was approved.[13] Its availability as OTC drug had led to misuse and improper use of EC pills. There are no parallel educational programs to the community to give knowledge about EC pill. Moreover, no proper instructions are given to users by pharmacist at chemist shop. This product was approved as an OTC product to reduce the rates of unwanted pregnancy and unsafe abortion but the fear of its use and improper use has failed to achieve the objective. The objective of this study is to assess knowledge attitude and practice (preference & experience) and acceptance of emergency contraceptive pills among women of child bearing age. Aim was also to identify barriers to the use of emergency contraceptive pills and to make public aware of indication, dose, timing, adverse effects, safety, efficacy, supply and over the counter availability of emergency contraception and counselled positively so that they develop positive attitude towards ECPs and freely practice in their daily life. Meanwhile also to assess women's knowledge, practice, preference, and acceptance of other available contraceptive methods. At the same time all the females who are not aware or do not have specific knowledge about various modern method of contraception will be made aware. Such a survey would definitely reduce unwanted pregnancy and hence induced abortions in India.

METHODS

A cross-sectional study was conducted among 328 women of reproductive age group attending the gynaecological OPD including the patients and their female attendants Aims, Raipur over a period of 3 months from June to August, 2013. Data was collected using anonymous pretested structured questionnaire. The women were informed and explained about the study and in case of illiterate subjects our nursing staff gave the guidance to fill the questionnaire. The questionnaire covered the following demographic point's like age, age at marriage, address, religion, education, total family income, socioeconomic status, no of living children, no of abortions and its reason, menstrual history. Also information regarding kind of contraceptive method available and used by them at any point of time and their preference were assessed. The respondents were also asked all types of questions which could help us to assess their knowledge attitude practice and acceptability of emergency contraception.

RESULTS

Out of 328 subjects 300 women gave consent for the study. Response rate is 91.4%. As shown in Table 1, 92.7% of the respondents were from urban background and apart from Hindu comprising 68.7% of the population Sikhs were also in significant number i.e. 26%. Only 22.6% were illiterate and 77.4% were educated.

We can see that 99.6% of the females were aware of the modern method of contraception.168 of 300 i.e. 56% had of Emergency contraceptive pills. 58 of 300 i.e. 19.6% had ever used ECPs. 18% were always practicing UPSI and 48% were mostly and 34% rarely practicing UPSI. 45.6% of females had unwanted pregnancy and 34% had undergone induced abortion mostly because of family being completed.

Table 1: Socio-demographic characteristic of the married females of reproductive age group (15-44 years) attending AIIMS OPD, Raipur.

	Number	Percentage
Residence		
Urban	278	92.7
Rural	22	7.3
Religion		
Hindu	206	68.7
Muslim	12	4
Christian	04	1.3
Sikh	78	26
Education		
Illiterate	68	22.6
Primary	44	14.7
Secondary	71	23.7
Graduate	89	29.7
Postgraduate	28	9.3
Family monthly income		
<5000	102	34
5000-15000	114	38
15000-25000	66	22
>25000	18	6
Age at marriage		
<20	143	47.7
20-30	153	51
>30	04	1.3
No. of children		
≤2	211	70.3
3-4	86	28.7
≥4	03	01
Knowledge of various methods		
Any modern method	299	99.6
Condom	282	94
OCP	285	95
IUD	237	79
Injection /Implant	147	49
Natural	204	68
ECP	168	56
Sterilization	298	99.3
Type of contraceptive ever used		
Any modern method	189	64.3
Condom	132	44
OCP	54	18
IUD	24	08
Injection /Implant	13	4.3
Natural	45	15
ECP	58	19.3
Sterilization	123	27.8
No of women practicing UPSI		
Always	57	18
Mostly	144	48
Rarely	102	34
No of women had unwanted pregnancy		
No	163	54.3
Yes	137	45.6
No of women had induced abortion		
No	198	66
Yes	102	34
Reasons for abortions		
Unplanned	30	26.7
Economic problems	17	15.17
Family completed	65	58

Table 2: Knowledge of women who ever heard of emergency contraception.

Variables	Number	Percentage
Source of information		
Formal education	0	0
Media (TV/Radio)	148	88.1
Magazines	8	4.76
Internet	0	0
Health personnel/F. doctors/nurses	3	1.8
Friends/relatives/husband	09	5.4
Pharmacist	0	0
Gynaecologist	0	0
When ECP can be used		
Just before sex	4	2.3
Within 24 hours of UPSI	10	5.95
Within 72 hours of UPSI	125	74.40
After 72 hours of UPSI	01	0.59
Don't know	28	16.66
Since when do u know about ECPs		
6 months	0	0
6-12 months	4	2.3
1-1/2 years	6	3.6
½- 5 years	158	94.04
6-10 years	0	0
Effectiveness of ECP		
75-99%	13	7.7
50-75%	7	4.2
30- 50%	9	5.35
Don't know	139	82.7
Safety		
Safe	15	8.9
Unsafe	105	62.5
Don't know	148	28.57
Place to obtain ECPs		
Public health facilities	11	6.54
Pvt doctor/clinics	74	44.07
Super market	2	1.2
Social Workers	14	8.3
Pharmacist/medical store	158	94.04
Don't know	6	3.6
Which of these can be used for EC		
I Pill/Pill72/Unwanted 72	73	43.5
IUCD	0	0
OCPS	4	2.4
Don't Know	95	56.5
Can u get ECPs without prescription		
No	16	9.5
Yes	67	39.9
Don't know	85	50.6
Adverse effect of ECPs		
Infertility	44	26.2
Irregular menses	70	41.7
Heavy bleeding	25	14.9
Nausea vomiting	25	14.9
No idea	98	58.3
Recommended dose of ECPs		
One tablet	16	9.5
Two tablet	64	38.1
Don't know	88	52.3
Interval between 2 doses		
12 hours	36	21.4
24 hours	40	23.9
Don't know	92	54.8

Conditions where EC can be used		
UPSI	70	41.7
Rupture of condoms	76	45.2
Post rape	36	21.4
Forgotten OCPs	25	14.9
All of the above	44	26.2
No idea	58	34.5
Do these pills lead to abortion		
Yes	47	28
No	19	11.3
Don't know	102	60.7
DO these pills cause harm if given to B.F. Mothers		
Yes	59	35.1
No	0	0
Don't know	109	64.9
Can it be used as regular method of Family Planning		
Yes	3	1.8
No	67	39.9
No idea	98	58.3
How many times in a single cycle can it be used		
Once	51	30.4
Twice	15	8.9
Many	0	0
Don't know	102	60.7

Table 2 assesses the knowledge about ECPs in women who have heard of Emergency contraceptive pills. 125of 168 (74.4%) knew that it should be taken within 72 hours. 88% had of it heard through audio-visual media like television and radio and around 5% knew from magazines or their friends and relatives. 94.04% told that it could be obtained from medical store and 44.07% said that it can also be obtained from pvt doctors and their clinic. Only 6.54% knew that it can also be obtained from public health facilities. 39.9% knew that it can be obtained without prescription and 9.5% said that it cannot be obtained without prescription and 50.6% had no idea about it at all. 52.3% did know about the exact dose. 58% of them had no idea in which conditions are ECPs used. 35.1% believed that it should not be given to lactating mother and 64.9% had no idea whether to given to breastfeeding mother or not. No single women found safe to breastfeeding mothers. Table 3 assesses the attitude towards ECPs. Only 3.6% females admitted that they will recommend ECPs to other females. Only 4.16% said that they might use it in future if required. When asked whether it should be included in orientation programme 85.75 were neutral about it and 3.65 said no and only 10.7% of them wanted to know more about ECPs. 72% did not prefer ECPs as they had no clear cut knowledge of dose and timings and 28% feared of its side effects. 28% said that it should not be available without prescriptions 63.1% were neutral and 8.95 told that it should be freely available. 75.5% of them did not want that it should be easily available to young girls. 46.4% believed that if made readily available it would encourage promiscuity and sexual irresponsibility and 48.2% were neutral. Only 37.5% believed it to be effective and 58.35% found it to carry major side effects. No single women said yes when asked whether they will recommend or suggest their daughter for ECPs and 81.5% said No and 18.5% were neutral. Out of 168 who had heard of ECP's 58 had used it and Table 4 shares the experience of those 19.3% of women. None have consulted gynaecologists before taking it and maximum no i.e. 19 (32.7%) have taken directly from medical store guided by pharmacist. 9 (15.5%) had taken advice from health personnel or general practitioner and 13 (22.5%) were influenced by media. 37 (63.8%) had menstrual problem out of which 27 (46.6%) had heavy bleeding in the subsequent cycle, 7 (12.1%) had delayed menses and 3 (5.2%) experienced spotting. 51 (87.9%) never had to gynaecologist after taking it but 7 (12.1%) did refer to gynaecologists. 53 (91.3%) found effective 05 (8.7%) did not find it useful preventing unwanted pregnancy. 53 (91.4%) have never advised anybody to use these pills for emergency contraception and 05 (8.6%) have advised their knowing's.

Table 3: Analysis of attitude towards ECPS.

Variables	Numbers	Percentage
Will you recommend ECPs to others		
Yes	06	3.6
No	104	61.9
Neutral	58	34.5
Would u use ECPs in future		
Yes	7	41.6
No	114	67.9
Neutral	47	28
Should ECPs be included in orientation programme		
Yes	18	10.7
No	6	3.6
Neutral	144	85.7
Reasons for not using ECPs		
Not heard	0	0
No clear cut knowledge of dosage and timing	121	72
Fear about side effects	47	28
Should it freely available without prescription		
Yes	15	8.9
No	47	28
Neutral	106	63.1
Should it freely available to girls >18 years		
Yes	0	0
No	126	75
Neutral	42	25
Access to ECPs will encourage promiscuity and sexual irresponsibility		
Yes	78	46.4
No	09	5.4
Neutral	81	48.2
Is it effective?		
Yes	63	37.5
No	26	13.7
Neutral	79	47
Available ECPs carry major side effects		
Yes	98	58.3
No	06	3.6
Neutral	64	38.1
Can it be used regularly to avoid pregnancy		
Yes	3	1.8
No	92	54.8
Neutral	73	43.5

Table 4: Analysis of experience of ECPs of those 58 subjects who had used it.

Variables	Number	Percentage
No. of respondents who have used EC		
ECPs	58	19.3
IUCD	0	0
OCPs	0	0
With whose advice used ECPs?		
Husband	6	10.3
Friends/relatives	5	8.6
Health personnel/F. doctors/nurses	9	15.5
Media (TV/Radio)	13	22.4
Magazines	0	0
Internet	0	0
Pharmacist	19	32.7
Social worker	0	10.3
Gynaecologist	6	0
Why did u use it?		
Was not using any contraception	43	74.1
Timing was miscalculated	0	0
Condom torn or slipped	9	15.5
Missed pills	4	6.9
Don't remember	2	3.4
Did u have any side effects?		
Nausea vomiting	21	46.5
Menstrual problem	37	63.8
Pain abdomen	6	10.3
No side effects	10	17.2
Don't remember	09	15.5
Did u have any menstrual problem after ECPs?		
Yes	37	63.8
No	15	25.9
Don't remember	6	10.3
What type of menstrual problem did u have?		
Delayed periods	7	12.1
Heavy bleeding	27	46.6
Spotting	3	5.2
What type of menstrual problem did u have?		
Delayed periods	7	12.1
Heavy bleeding	27	46.6
Spotting	3	5.2
Did u ever refer to gynaecologists?		
Yes	7	12.1
No	51	87.9
How frequently have u used in a year?		
Once	51	87.9
Twice	4	6.8
Thrice	3	5.1
>3	0	0
How many times used in same cycle?		
1	54	93.1
>1	04	6.8
Is it effective in preventing unwanted pregnancy?		
Yes	53	91.3
No	05	8.7
Have u ever used after 72 hours?		
Yes	3	5.2
No	55	94.8
Have you ever advised to other?		
Yes	05	8.6
No	53	91.4

DISCUSSION

Although India was the first country in the world to introduce a National Family planning Programme as early as during the first five year plan (1951-1956) to control population explosion.[15] the unmet need for family planning among currently married women is still 13 percent in India. Although in India it is estimated that CPR is 56% only 10% are using spacing methods. Numerous contraceptive techniques both temporary and permanent have been introduced by family welfare department of India.[16] discontinuation rates for temporary methods are fairly high: 39 percent of users of temporary methods discontinue use within 12 months of initiating use. About half of pill users discontinue use within the first year of adopting the method, and discontinuation is also high for condoms (45 percent). One-year discontinuation rates are also substantial for users of the rhythm method (32 percent) and withdrawal (35 percent), the methods with the highest failure rates.[17] This leads to exposure to unprotected sex even when not planning for a pregnancy necessitating the use of Emergency Contraception, to avoid the potential hazards of pregnancy termination. This need may also arise due to failure of contraceptive method being used (condom rupture, diaphragm slippage, forgotten oral pills) or following sexual assault. By timely and judicious use of Emergency Contraception (EC), 75-99% of these unplanned pregnancies, and thereby unsafe abortions, can be prevented (Emergency contraception consensus conference, Bellagio, 1998). Prevention of these unplanned pregnancies will go a long way in improving the reproductive health of women in India as failure rate of Emergency Contraception is varying from 0-2.4% depending on the method used interval between coitus and method use and relationship of coitus to ovulation. But all methods are ineffective once implantation has already occurred. While termination of an unwanted pregnancy is legal in India, women living in the state of Chhattisgarh, where maternal mortality are higher than the Indian average often encounter numerous challenges when trying to access safe abortion services.[18] Not a single study have been done in Chhattisgarh and use of ECPs hence this study apart from evaluating the knowledge attitude experience and acceptance of ECPs and at the same time all the females who were not aware or did not have specific knowledge about various modern method of contraception were made aware and counselled positively regarding indications, effectiveness, safety, side effects, dose, dosing interval, cost, availability etc. so that they develop positive attitude towards ECPs and freely practice in their daily life.

The one-year discontinuation rates for all spacing methods are highest in Jharkhand, Kerala, Tripura, and Madhya Pradesh, Chhattisgarh (49-52 percent). The table below summarizes some important facts, statistics of India and Chhattisgarh taken from NFHS-3 (2005-2006).

Table 5: Some important facts, statistics of India and Chhattisgarh taken from NFHS-3 (2005-2006).

Variables	Current study (%)	Chhattisgarh*** (%)	India*** (%)
Knowledge of any modern method of contraception	99.6	99.7	99.3
Used any of the modern method of contraception	64.3	58.9	55.8
On an avg. % of currently married women not using any contraceptive method most of the time	>66	71.3	61.7
Knowledge of ECPs	56	13.5	22.6
Use of ECPs	19.3	No data	No data

The current study reflects that although 56% women have heard of ECPs, the detailed and specific knowledge of ECPs are poor and misinformation is high. This was because main source of information was through electronic media or informal network such as friends and family members which are unreliable and gives limited information regarding effectiveness, safety dose, dosing interval, adverse effects, place to obtain, indications where it can be used etc. Surprisingly even the health personnel and medical staff are not aware that department of health and family welfare is responsible for implementation of national family welfare programme encourages the utilization of contraceptive and distributing the same to the state/union territory, through free supply scheme and Public Partner Partnership (PPP) under Social marketing scheme and about 21.5 lakhs pack of two tablet each of E-pills were procured during the year 2010-2011 and supplied freely to the state and about budget of 1.72 crores has been utilized for that.[20] None of the females had a strongly positive attitude for ECPs and most of them did not favour its availability as an OTC may be because they thought it might be misused by younger generation and would encourage unsafe sexual relationship and believed that availability with prescription would rather be more effective contraception. Parents and society do not feel comfortable discussing sexuality and reproductive health matters with their daughters thinking it would divert and misguide them. However, the level of usage does not match the level of awareness due to lack of concrete knowledge of this method. EC is rarely prescribed in India. Only 30–40% of general practitioners and 10% of paramedical staff are aware of it. Detailed knowledge about EC among practising gynaecologists is also limited.[23,24] Two recently conducted national surveys on contraception did not include any questions about EC, suggesting a lack of recognition of its potential use even by policymakers.[25] Inclusion of EC in the family planning programme could have a substantial impact on reducing the rate of induced abortion. Using a 75% efficacy rate for EC.[26-29] it is estimated that the correct use of EC could have prevented nearly 65.5% (95% CI 57.0-74.0) of induced abortions due to contraceptive method failure and 25.6% (95% CI 20.7-30.5) of all induced abortions.[30] Many researchers have concluded that expanded access does not increase the rate of unprotected sexual intercourse nor does it change sexual behaviours.[31,32] All these disbeliefs leads to directly obtain it from pharmacy than to consult health personnel so as to maintain privacy leading to failure and ending into unsafe abortion specially in young unmarried females.

Awareness of EC is poor even among the general practitioners and specialist doctors and young interns are aware of EC but they lack an accurate and detailed knowledge regarding its composition, dosage schedule and efficacy. Patients rarely seek help in cases of condom failure and unprotected intercourse. Very few doctors prescribe EC and counsel patients for contraceptive failure.

Those women who had used ECPs mostly took the advice of all others except gynaecologists and 63.8% had some kind of menstrual problem and as high as 91.3% females were satisfied and found effective in preventing unwanted pregnancy and only 12.1% had to visit gynaecologists for some side effects but still as high as 91.4% did not suggest other females for its use.

Limitations of study

This study suffers from the usual limitation of a cross-sectional study. We could not include the most vulnerable group the young unmarried girls because of the limitations mentioned above and also we can also not guarantee about the honest answers as it covered the sensitive issue i.e. sex and recall bias but maintaining the privacy we could extract most of the information. Also this study limited to women although men comprise the decision making component in country like India who need to be educated before if we want a new contraceptive method to be successful.

CONCLUSION

Awareness among the public through mass media is likely to generate public demand for EC and also needed to be adequately educated and informed about ECPs to make this method successful. OTC supply of ECPs without prescription but with pharmacist counselling may increase reduction of unintended pregnancy and abortion. However, keeping in mind the changing sexual behaviour of the younger generation, a formal training of the doctors and paramedical staff and preparing guidelines on EC use would be a right step. Prescription practices can be improved by generating education and training of health care providers and it should be a routine practice to discuss about EC with couples seeking contraceptive advice by increasing access to client friendly EC services through all major sectors of service provision in line with awareness creation and incorporation of RH programs and educational campaigns at schools, youth

organization, urban slums, rural women etc. where access could be facilitated to this vulnerable group so as to reduce maternal mortality due to unsafe abortion in India. As awareness is limited, women as well as healthcare providers are unable to gain any benefit. The time has now come to have a National Policy regarding these methods, and to make them available, train the doctors and paramedics for its proper use and disseminate this information to the masses. A multi-disciplinary approach, involving technical experts, experts from countries with experience of EC introduction, policy-makers and planners, drug controller of India, NGOs, social scientists, service-providers, pharmaceutical companies, women's groups, media, legal and ethics experts has been adopted to reach a consensus. It emphasized the need to educate the health practitioners, family planning service providers and medical students. Potential clients should be educated about the reproductive health and EC method at family planning clinics, and through articles in health magazines. We strongly recommend that strategies to promote ECP use be focussed on spreading accurate information through formal education and communication by medical personnel and through audio-visual media which could provide reliable and accurate knowledge on ECPs.

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