

**KNOWLEDGE, EXPERIENCE AND OPINION ON EMERGENCY CONTRACEPTION AMONG URBAN EDUCATED WOMEN**Lakshmidivi M<sup>1</sup>, Shreedhar Venkatesh<sup>2</sup>, Rajivkumar Saxena<sup>3</sup>, Pramila Pandey<sup>4</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT: OBJECTIVE:** The purpose of this study is to study the knowledge and experience of EC in literate women attending out-patient department of Vydehi institute of medical sciences and research centre and an attempt was made to educate them with proper knowledge of emergency contraception. **DESIGN:** Questionnaire based study. **MATERIALS AND METHODS:** This was a questionnaire based study conducted on women attending outpatient department of VIMS an RC from December 2011 to February 2012. 175 urban educated women in reproductive age group participated in this study. Majority 83.15% women (79) knew that EC should be used within 72 hours of unprotected sexual intercourse and 7.3 % (7) were of the opinion that it should be used within a day and 2.1% (2) thought that oral EC can be used more than 72hrs after unprotected intercourse. Among the study group only 17.14% women (30) had used EC. Major reason for its use was following an unprotected intercourse in 16 women (55.3%), failure of regular contraception in 43.33% (13) and 3.3 % (1) women had misconception that it can be used for accomplishing an abortion. In our study, no side effects in 42 %, nausea and vomiting in 82%, menstrual irregularities in 22.1% among the women who has used it. **RESULTS:** Out of 175 women 45.7% (80) have not heard of EC and 54.3% (95) had some knowledge about EC. Television commercials were the major source of knowledge for 64.22% of the study group. **CONCLUSION:** Knowledge is the main barrier for the use of emergency contraception. Knowledge is poor even in educated group and in teenagers. Knowledge of EC in teenage and adolescent group is very low and 80% of pregnancies in this age group are unwanted and majority seeks abortions in an illegal way leading to unnecessary mortality and morbidity. Therefore there is an urgent need to educate the women in reproductive age group regarding EC.

**KEYWORDS:** Emergency contraception, knowledge, experience and opinion.

**INTRODUCTION:** Even though emergency contraception (EC) became available in most of the countries in late 1960 and early 1970 in India awareness about EC in general population is very low and there are majority of unplanned pregnancies approximately 31% each year in developed countries.<sup>1</sup> Unintended pregnancy poses a major challenge to the reproductive health of young adults.

World Health Organization (WHO) estimated that 84 million unwanted pregnancies occur annually world-wide.<sup>2</sup> In India there is about 11million abortions occurring each year and majority being illegal and unsafe.

Unsafe abortions are the major contributors of maternal mortality in India accounting for 8% and number of mortality related to unsafe abortions each year is about 20, 000 and this is because of unsafe abortions being done by untrained persons and under unhygienic conditions. Morbidity related to unsafe abortions is very high and exact picture is not known and psychological sequel is still higher.<sup>3</sup>

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According to consortium on national censuses for medical abortions in India about 10million abortions takes place every year and about 20, 000 women die due to abortion related complications, majority being illegal.<sup>3</sup> Statistics of illegally performed abortions has increased from about 24, 300 in 1972 to 25, 29, 979 in 2012.

Drug controller general approved Levonorgestrel (LNG) as EC in 2001 and it has been introduced in family welfare programme and is available over the counter since 2003. However, use of EC is still very low both in private and public sector, major reason being lack of awareness about emergency contraception both in general population and amongst health care providers.<sup>3</sup>

EC is a critical option to prevent unwanted pregnancies and abortions even after sexual intercourse but its use is very low even in literate population in India. This can serve as one of the major tools to reduce unwanted pregnancies.

The purpose of this study is to study the knowledge and experience of EC in literate women attending out-patient department of Vydehi institute of medical sciences and research centre and an attempt was made to educate them with proper knowledge of emergency contraception.

**MATERIALS AND METHODOLOGY:** This was a questionnaire based study conducted on women attending outpatient department of VIMS an RC from December 2011 to February 2012. 175 urban educated women in reproductive age group participated in this study.

Women willing to participate in this study were administered a pre-validated questionnaire after taking consent. After answering the questionnaire, a small presentation was made about the correct use of EC and its effects. These women then had an opportunity to discuss their experience with a qualified doctor and clarify any doubts.

The results were statistically analyzed.

**RESULTS:** This study was conducted on 175 married women in the reproductive age group (15-40yrs). All of them were educated more than 12 standards. Most of them were in age group of 20-25yrs (71.4 % i.e. 125 women). In this study group 66.3% women (116) were home makers and 33.3% (59) were working women.

Out of 175 women 45.7% (80) have not heard of EC and 54.3% (95) had some knowledge about EC. 54 out of 95 women, 60% had incomplete knowledge and 23 of these 95 women, 24.2% knew in detail about EC, and remaining were unsure about their knowledge of EC (Table 1).

Television commercials were the major source of knowledge for 64.22% of the study group. Other sources of information for EC were friends (8.13 %), magazines (8.13 %), relatives (7.3%), doctors (5.6%), teachers (4%) and radio commercials (2.2%). (Table 2)

Among women who knew about EC, 95.78% women (91) knew about oral use of EC and only 4.2% (4) knew that OCP's and Cu-'T' could also be used a method of EC. In the study group 52% (91) had knowledge about oral EC.

Only 57.89%women (55) had knowledge about safe and unsafe period of menstrual cycle. 25.26% (24) did not know about safe and unsafe period and 14.73% (14) were not sure. In study group 31.42 % (55) had knowledge about safe and unsafe period.

Majority 83.15% women (79) knew that EC should be used within 72 hours of unprotected sexual intercourse and 7.3% (7) were of the opinion that it should be used within a day and 2.1% (2) thought that oral EC can be used more than 72hrs after unprotected intercourse.5.26% (5)

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participants were not sure about the timing of use of EC after unprotected sexual intercourse. In the study group 45.12 % (79) knew that it can be used within 72hours.

Knowledge about side effects of EC was limited– no side effects 43.15 % (41), nausea, vomiting and pain abdomen in 31.57 % (30), menstrual irregularities in 22.1 % (21), breast tenderness 3.15% (3). (table 3)

44.2%(42) were aware about consulting a doctor before using EC, 51.57% (49) after its use, and 4.2%(4) would consult a doctor only if they miss the next menstrual cycle.

**EXPERIENCE:** Among the study group only 17.14% women (30) had used EC.

Major reason for its use was following an unprotected intercourse in 16 women (55.3%), failure of regular contraception in 43.33% (13) and 3.3 % (1) women had misconception that it can be used for accomplishing an abortion.

24 of 30 women (80%) had used it in the unsafe period and 6.6% had used it all the times when they had unprotected intercourse and remaining were not sure about timing about use of EC. Knowledge about timing of EC in relation to period of menstrual cycle was very poor. 57% of the participants had some knowledge about safe and unsafe period and only a few knew that it has to be used in unsafe period. Majority 93% knew that EC should be used within 72hrs of unprotected coitus when compared to general population it was 13.7%

15 women (50%) had used it within 72hrs of unprotected intercourse and 13 (43.33%) had used it within 24hrs and only 2 (7%) has used it more than 3 days after unprotected coitus. Nausea, vomiting and pain abdomen was experienced by 15 (50%) menstrual irregularities in 10(21.27%) and breast tenderness in 2 (4.25%) of women using EC.

66.6% (20) of women had used it only once, 23.3% (7) had used EC twice and 10 % (3) had used it more than 2 times. Majority 90% (27) had used it only once in 1 cycle. EC was successful in 86.66% (26) of women and failed in 13.33%(4). Most women procured EC over the counter 93.3% (28) and only 6.6% women (2) had obtained EC after consulting a doctor.(table 4)

In our study, no side effects in 42 %, nausea and vomiting in 82%, menstrual irregularities in 22.1% among the women who has used it.<sup>2</sup> in comparison to Cynthia C et al study where 79% reported nausea and vomiting.

In our study opinion regarding emergency contraception was taken from the study group, according to that 72 % (126) were in favor of using EC and 28 % (49) were against the use. 33.7% (59) were of opinion to consult the doctor for its use, 61.14% (107) were of opinion that no need to consult the doctor for its use and 5.2% (9) were not sure about consulting doctor.

In our study 46.26 % (81) were in favor of advertisement regarding EC and 50.8 % (89) were not in favor of advertisement and 2.8 % (5) were not sure about their opinion regarding advertisement. 45.14 % (79) were in favor of easy availability of EC, 52.1 % (93) were not in favor of easy availability and the rest 2.8 % (5) were not sure about their opinion.

**DISCUSSION:** Emergency contraception is a convenient option to prevent unwanted pregnancies even after unprotected intercourse. In our study group 54.3% had knowledge about EC but the knowledge was incomplete and there were misconception about its use and side effects. Compared 50% in USA and 90% in UK. Television was the main source of their knowledge.

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This is comparable to Melaine A. Gold study in which total of 96.5% (389) volunteered graduating female students participated in the study. 41.9% (163) had ever heard of EC, and only 6.8 (11) used the method. The common sources of information were friends 36.5 % (60), radio 22.8 % (37) and television 12.3 % (20). 71.2 % (113) agreed to use EC when the need arose.<sup>1</sup>

Even in the women who have used EC, knowledge about EC was very poor. In our study no contraception 53.33% was the main reason for using it and followed by failure of contraception 43.33%, Elf Jhonson et al study most common reason for women needing EC is condom failure, followed by missed oral contraceptive pills and no contraceptive or withdrawal.<sup>4</sup>

In our study our study 80% of them has used EC in unsafe period, which is comparable to Louise A Keogh et al study.<sup>5</sup>

Main reason for not using EC is the poor understanding about fertility, contraception and pregnancy risk. According to a study even in developed countries 91% of the women who had heard about EC only 7% had used it. It can be used as back up method of contraception.

In our study 74.44% had nausea, vomiting and pain abdomen and 21.11% had menstrual irregularities in comparison to Cynthia C. Harper et al and 56% has menstrual irregularities.<sup>6</sup> Nausea was reported in by 38.5% of participants and vomiting by 11.5%.<sup>2</sup> In our study it was successful in 86.66% which is comparable to 89 % seen in compared to a study done in Ethiopia.<sup>7</sup>

An attempt is made to educate them and after education 84.5 % (173) understood that oral EC pills are available for use and 14.28 % (25) did not understand about the type of emergency contraception. 99% (171) understood that it has to be used in unsafe period. 97.2% (169) understood that it has to be used within 72 hours of unprotected intercourse. 90.1% (159) understood about the side effects of EC. After educating them 48% (84) were of opinion that doctor has to be consulted before using it, 40.5% (71) that doctor has to be consulted after using it and 12.5% (22) were of opinion that doctor has to be consulted if they miss the cycle. In comparison to their knowledge before educating them there is significant improvement in their knowledge about EC.

Although majority of health care providers are willing to provide EC and has a favorable attitude towards it but rate of provision is very low. Provision should be made to supply over the counter use of drug because effectiveness of EC is good if it is taken as early as possible.

There is an urgent need to educate family physician and other health care providers regarding it. There was a discrepancy between providers' perceived and actual knowledge about EC. Interventions targeting misunderstandings might help reduce missed opportunities to provide EC.<sup>8</sup>

There is an urgent need to improve accessibility of EC and following steps can be taken to improve the accessibility Promote awareness about EC in general population, health care professionals should be educated about it, over the counter use should be encouraged.

**CONCLUSION:** Knowledge is the main barrier for the use of emergency contraception. Knowledge is poor even in educated group and in teenagers. Emergency contraception (EC) may prevent Up to 95% of unwanted pregnancies<sup>9</sup>. Contraceptive method failure led to unintended pregnancy in 39% of abortion seekers. Correct use of EC could have prevented nearly two-thirds of induced abortions due to contraceptive method failure and a quarter of all induced abortions.<sup>10</sup>

EC availability and use vary widely in different parts of the country, and is dependent on many factors such as regulation policies of the government, the understanding of the women and the

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method providers about its use, and cost. Even though literate population is aware about regular contraception but there awareness about EC is still lacking. According to ICMR study 80% of women use contraception after 1<sup>st</sup> child birth in educated group and 50% in uneducated group.

Knowledge of EC in teenage and adolescent group is very low and 80% of pregnancies in this age group are unwanted and majority seeks abortions in an illegal way leading to unnecessary mortality and morbidity. Therefore there is an urgent need to educate the women in reproductive age group regarding EC.

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<b>Knowledge about EC</b>	<b>Number of patients (n=175)</b>	<b>%</b>
• Nil	15	8.6
• Incomplete	62	35.4
• Complete	53	30.3
• Not sure	4	2.3

**Table 1: knowledge about EC**

<b>Source of Knowledge about EC</b>	<b>Number of Patients (n=175)</b>	<b>%</b>
• Nil	80	45.7
• Friends	10	5.7
• Relative	9	5.1
• Teachers	5	2.8
• Television	79	45.1
• Radio	3	1.7
• Magazine	10	5.7
• Doctor	7	4.0
• Nurse	-	-

**Table 2: Knowledge about Source of Knowledge about EC**

<b>Effect of EC</b>	<b>Number of patients (n=175)</b>	<b>%</b>
• Nil	80	45.7
• No side effect	41	23.4
• Nausea vomiting, abdominal pain head ache	29	16.6
• Breast heaviness and tenderness	3	1.7
• Spotting and bleeding per vagina	21	12.0

**Table 3: Knowledge about effects of EC**

<b>Procuring of emergency contraception</b>	<b>Number of patients (n=175)</b>	<b>%</b>
• No	139	79.4
• Over the counter from pharmacy without prescription	35	20.0
• After consulting a doctor	-	-
• Through nurse or para medical staff	-	-
• Others	1	0.6

**Table 4: ways of Procuring emergency contraception EC**

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