ORIGINAL ARTICLE

AWARENESS ABOUT EMERGENCY CONTRACEPTIVE PILLS VERSUS CONVENTIONAL CONTRACEPTIVE METHODS AMONG MOTHERS ATTENDING MATERNAL AND CHILD HEALTH (MCH) CLINIC, BAPUJI HOSPITAL, DAVANGERE, KARNATAKA
Vandana Khargekar¹, R. G. Geethalakshmi²

HOW TO CITE THIS ARTICLE:
Vandana Khargekar, R. G. Geethalakshmi. "Awareness about Emergency Contraceptive Pills Versus Conventional Contraceptive Methods among Mothers Attending Maternal and Child Health (MCH) Clinic, Bapuji Hospital, Davangere, Karnataka". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 15, February 19; Page: 2471-2480, DOI: 10.14260/jemds/2015/357

ABSTRACT: BACKGROUND: Unwanted pregnancies are a major public health problem for both developing and developed nations, which generally results from ineffective use of contraceptives and end up in induced abortions. Emergency contraception sometimes called "morning after", "postcoital" or "second chance pills" can be used to prevent pregnancy after an unprotected sex. Attention has been focused on the potential for emergency contraception to reduce the number of unwanted pregnancies and thus abortion rate. OBJECTIVES: 1. To compare the awareness about emergency contraceptive pills and conventional contraceptive methods among mothers attending MCH clinic, Bapuji Hospital, Davangere. 2. To study the socio-demographic profile of the above group. METHODS: A pre-tested, semi-structured questionnaire was used to know the awareness about emergency contraceptive pills versus conventional contraceptive methods among mothers attending MCH clinic, Bapuji hospital, Davangere from 1st October 2011 to 31st December 2011. Data was entered into Excel sheet and was analysed using SPSS software version 17. Data was described as proportions, categorical data using chi square test. RESULTS: A total of 500 mothers were included in the study for duration of 3months. Approximately 80% of the respondents were in the age group of 21-30yrs, 72.8% from urban background, 83.4% were Hindus, 55% were from joint family. Approximately 49% belonged to socioeconomic class II and III, 97.2% were literate and 86.6% were housewives. 31.8% had knowledge about emergency contraception which is very less when compared to 84.2% of conventional methods. 6.2% have practiced emergency contraception which is very poor when compared to 47.5% of conventional methods. 77.8% were aware of female sterilization. The most common known temporary method of contraception was Cu-T (71%) followed by OCP (60.6%). Most common method used by couples was condom (21.8%) followed by Cu-T (19.7%). 59% practiced contraception between birth of 1st and 2nd child. 20.4% had undergone medical abortion previously and only 29.4% were aware that pregnancy can be terminated by medical means. 49.7% have correctly identified the recommended 72hrs as a time limit for the use of emergency contraception. The source of information about emergency contraception is maximum by television (76.72%) followed by paramedics/doctors (13.8%). CONCLUSIONS: The study reveals good knowledge about family planning and the respondents are aware of at least one method of contraception but practice of using contraception is poor.

KEYWORDS: Unwanted pregnancies, emergency contraception, postcoital contraception, second chance pills, induced abortion.
INTRODUCTION: The need of contraceptive practices in order to control population explosion lies in the following point:

- To avoid unwanted births.
- To regulate intervals between pregnancies.
- To control the time at which births occur in relation to ages of the parent.
- To determine the number of children in the family.¹

Family planning through contraception tries to achieve two main objectives; firstly, to have only the desired number of children and secondly, to have these children by proper spacing of pregnancies.²

Unwanted pregnancies are a major public health problem for both developing and developed nations, which generally results from ineffective use of contraceptives and end up in induced abortions.³ 78% of the pregnancies in India are unplanned and at least 25% of them are unwanted.⁴

Emergency contraception sometimes called “morning after”, “postcoital” or “second chance pills” can be used to prevent pregnancy after an unprotected sex.⁵ Although emergency contraceptive 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.⁶

Emergency contraceptive (EC) may be an acceptable and effective method of avoiding unplanned pregnancy for abused women as it can be instituted without partner knowledge.⁷

Emergency Contraceptive Pills (ECPs) are the only form of hormonal contraceptives that provide women a last chance to prevent pregnancy after unprotected sex.

Attention has been focused on the potential for emergency contraception to reduce the number of unwanted pregnancies and thus abortion rate.⁵

MATERIALS AND METHODS: A cross sectional descriptive study conducted among mothers attending MCH clinic, Bapuji hospital, Davangere which is run by department of community medicine, J.J.M. Medical College, Davangere over a period of 3 months from 1st October 2011 to 31st December 2011.

A pre-designed, pre-tested, semi-structured questionnaire consisting of sociodemographic profile and knowledge, and practice was used to know the awareness about emergency contraceptive pills versus conventional contraceptive methods.

Ethical requirements of informed consent and confidentiality were ensured. Data was entered into Excel sheet and was analyzed using SPSS software version 17. Data was described as proportions, categorical data was analyzed using chi square test and p value.

ETHICAL CLEARANCE: The study was approved by ethical committee of JJM Medical College, Davangere.
RESULTS:

| Table 1: Socio-demographic characteristics of the mothers attending MCH clinic |
|-----------------------------------------------|-----------------|-----------------|
| **a) Age group**                             | **Number (n)**  | **Percentage (%)** |
| 16-20yrs                                     | 22              | 4.4%             |
| 21-25yrs                                     | 205             | 41%              |
| 26-30yrs                                     | 199             | 39.8%            |
| 31-35yrs                                     | 65              | 13%              |
| 36-40yrs                                     | 9               | 1.8%             |
| **Total**                                    | **500**         | **100%**         |
| **b) Residence**                             |                 |                 |
| Urban                                        | 364             | 72.8%            |
| Rural                                        | 136             | 27.2%            |
| **Total**                                    | **500**         | **100%**         |
| **c) Religion**                              |                 |                 |
| Hindu                                        | 417             | 83.4%            |
| Muslim                                       | 81              | 16.2%            |
| Christian                                    | 2               | 0.4%             |
| **Total**                                    | **500**         | **100%**         |
| **d) Occupation**                            |                 |                 |
| Housewives                                   | 433             | 87%              |
| Working                                      | 67              | 13%              |
| **Total**                                    | **500**         | **100%**         |
| **e) Type of family**                        |                 |                 |
| Nuclear                                      | 205             | 41%              |
| Joint                                        | 275             | 55%              |
| 3 generation                                 | 20              | 4%               |
| **Total**                                    | **500**         | **100%**         |
| **f) Socioeconomic status**                  |                 |                 |
| Class I                                      | 100             | 20%              |
| Class II                                     | 123             | 24.6%            |
| Class III                                    | 122             | 24.4%            |
| Class IV                                     | 99              | 19.8%            |
| Class V                                      | 56              | 11.2%            |
| **Total**                                    | **500**         | **100%**         |
| **g) Education**                             |                 |                 |
| Illiterate                                   | 14              | 2.8%             |
| Primary school                               | 30              | 6%               |
| High school                                  | 146             | 29.2%            |
| Intermediate/ diploma                        | 164             | 32.8%            |
| Graduate                                     | 122             | 24.4%            |
| Professional degree                          | 24              | 4.8%             |
| **Total**                                    | **500**         | **100%**         |
Table 2: Distribution of the study population according to parity

| Parity       | Number(n) | Percentage (%) |
|--------------|-----------|----------------|
| $P_1$        | 234       | 46.8%          |
| $P_2$        | 213       | 42.6%          |
| $P_3$        | 46        | 9.2%           |
| $P_4$ and above | 7       | 1.4%           |
| **Total**    | **500**   | **100%**       |

Table 2 shows that 47% of the study populations were primipara.

Chart 1: Distribution of study population according to parity

Chart 2: Distribution of study population according to knowledge and practice of contraceptives.

This chart shows that knowledge regarding contraception among the study population was maximum for female sterilization (77.8%) whereas for practice of contraception it was maximum for condom (21.8%).
31.8% had knowledge about emergency contraception which is very less when compared to 84.2% of conventional methods. 6.2% have practiced emergency contraception which is very poor when compared to 47.5% of conventional methods.

The most common known temporary method of contraception was Cu-T (71%) followed by OCP (60.6%). Most common method used by couples was condom (21.8%) followed by Cu-T (19.7%).

**Chart 3:** Distribution of study population according to time of practice of contraceptives.

This chart shows that 59% of the study population used contraceptives for spacing between 1\textsuperscript{st} and 2\textsuperscript{nd} child.

**Chart 4:** Distribution of study population according to reasons for non-usage of contraceptives. This chart shows failure of contraceptive method (40.4%) as the main reason for non-usage of contraceptives.
**Chart 5**: Distribution of study population according to source of information about emergency contraceptives. This chart shows television (76.7%) as the main source of information about emergency contraception among the study population.

20.4% had undergone medical abortion previously and only 29.4% were aware that pregnancy can be terminated by medical means.

49.7% have correctly identified the recommended 72hrs as a time limit for the use of emergency contraception. None of them had the knowledge of the existence of IUCD and OCP as emergency contraception.

| Table 3: Awareness of existence of emergency contraceptive pill by socio demographic factors |
|-----------------------------------------------|
| **a) Age group** | **Aware** | **Not aware** | **Total** |
| 16-20            | 4         | 18           | 22        |
| 21-25            | 51        | 154          | 205       |
| 26-30            | 68        | 131          | 199       |
| 31-35            | 30        | 35           | 65        |
| 36-40            | 4         | 5            | 9         |
| **Total**        | **157**   | **343**      | **500**   |

\[X^2=13.82, \text{ 4df Significant}\]

| **b) Residence** |
|------------------|
| Urban            | 138       | 226         | 364       |
| Rural            | 19        | 117         | 136       |
| **Total**        | **157**   | **343**     | **500**   |

\[X^2=26.35, \text{ 1df Significant}\]

| **c) Religion** |
|-----------------|
| Hindu           | 129       | 288         | 417       |
| Muslim          | 26        | 55          | 81        |
### Type of family

| Type of Family | N1 | N2 | Total |
|----------------|----|----|-------|
| Nuclear        | 78 | 127| 205   |
| Joint          | 74 | 201| 275   |
| 3 generation   | 5  | 15 | 20    |
| **Total**      | 157| 343| 500   |

\[X^2 = 7.16, 2\text{df} \text{ Significant}\]

### Socioeconomic status

| Class | N1 | N2 | Total |
|-------|----|----|-------|
| Class I | 52 | 48 | 100   |
| Class II | 48 | 75 | 123   |
| Class III | 38 | 84 | 122   |
| Class IV | 16 | 83 | 99    |
| Class V  | 3  | 53 | 56    |
| **Total** | 157| 343| 500   |

\[X^2 = 51.32, 4\text{df} \text{ Significant}\]

### Education

| Education  | N1 | N2 | Total |
|------------|----|----|-------|
| Illiterate | 1  | 13 | 14    |
| Primary school | 4  | 26 | 30    |
| High school | 23 | 123| 146   |
| Intermediate/ diploma | 60 | 104| 164   |
| Graduate   | 53 | 69 | 122   |
| Professional degree | 16 | 8  | 24    |
| **Total**  | 157| 343| 500   |

\[X^2 = 49.08, 5\text{df} \text{ Significant}\]

### Occupation

| Occupation       | Aware | Not aware | Total |
|------------------|-------|-----------|-------|
| Housewives       | 124   | 309       | 433   |
| Working mothers  | 33    | 34        | 67    |
| **Total**        | 157   | 343       | 500   |

\[X^2 = 11.45, 1\text{df} \text{ Significant}\]

### Parity

| P | N1 | N2 | Total |
|---|----|----|-------|
| P1 | 69 | 165| 234   |
| P2 | 78 | 135| 213   |
| P3 | 10 | 36 | 46    |
| P4+ above | 0  | 7  | 7     |
| **Total** | 157| 343| 500   |

\[X^2 = 8.28, 3\text{df} \text{ Significant}\]
Table 3 shows there is significant association between awareness of existence of emergency contraceptive pill and age group, residence, type of family, socioeconomic status, education, occupation, parity.

**DISCUSSION:** 80% of the respondents were in the age group of 21-30yrs compared to 74.6% in a study conducted by Abera H and Tebeje B. All the females were married in this study compared to 90.8% who were married in a study conducted by Abera H and Tebeje B and 75% married in a study conducted by Azeem Sultan Mir.

31.8% had knowledge about emergency contraceptive compared to 50% in a study conducted by Abera H and Tebeje B, 75.5% in a study conducted by Azeem Sultan Mir.

49.7% correctly identified the recommended 72hrs as time limit for use of emergency contraception which is similar to Abera H and Tebeje B study and 6.5% in Obnionu CN et al study.

Source of information about emergency contraception was maximum by television (76.72%) compared to Abera H and Tebeje B study where maximum was from school (38%), friends and relatives (52.4%) in Obnionu CN et al study.

6.2% practiced emergency contraception compared to 2.1% in a study conducted by Abera H and Tebeje B and 17% in a study conducted by Azeem Sultan Mir.

Main reason for not using emergency contraception was failure of method (40.4%) compared to fear of side effects (45.5%) in a study conducted by Abera H and Tebeje B.

47.5% had practiced contraception compared to 92% in Young et al and 45% in Reena S et al.

**CONCLUSION:** In India emergency contraception is much underpublicized and underused. Efforts should be made to promote information, education and communication regarding emergency contraception targeted to all women of reproductive age group. It is important that unwanted pregnancy be prevented through effective contraceptive practice rather than abortion.

The study reveals good knowledge and favorable attitude towards family planning. The knowledge of family planning is widespread among the respondents and they are aware of atleast one method of contraception but practice of using contraception is poor. Good communication skills and behaviour change is required to bridge this gap.

It is not sufficient that women have some general idea of their options. For emergency contraception to become a true choice, women must have detailed knowledge of the methods available and be able to find supplies within the short timeframe.

**RECOMMENDATIONS:**
1. Efforts should be made to promote IEC regarding emergency contraception to women of reproductive age group.
2. Good communication skills and behaviour change is required to bridge KAP gap.
3. It is important to inform women that Emergency contraceptive is less effective than other methods of birth control and may be better suited as an occasional back up form of birth control.
LIMITATIONS: Firstly this was a relatively small survey conducted in one part of Davangere city. Secondly the study was conducted among mothers attending MCH clinics, who are likely to have higher health related knowledge than women from a general population sample.

ACKNOWLEDGMENT: The authors express gratitude to the all the participants of the study for their support and co-operation.

REFERENCES:
1. Park K. Park’s Textbook of Preventive and Social Medicine. 22nd ed., Jabalpur: M/s Banarsidas Bhanot Publisher; 2013: p. 453.
2. Dabral S, Malik SL. Demographic study of Gujjars of Delhi: IV. KAP of family planning. J. Hum. Ecol. 2004; 16(4): 231-237.
3. Irfan F, Karim SI, Hashmi S, Ali S, Ali SA. Knowledge of emergency contraception among women of childbearing age at a teaching hospital of Karachi. J Pak Med Assoc April 2009; 59(4): 236-40.
4. National family health survey. Ministry of Family Welfare and Health, Government of India, 2005-06.
5. Abera H, Tebeje B. Knowledge, attitudes, and practices towards emergency contraception among female Jimma University students, Jimma, Southwest Ethiopia. Ethiopian Journal of Reproductive Health May 2009; 3(1): 37-43.
6. Glasier A. Emergency Postictal Contraception. N Engl J Med 1997; 337: 1058-64.
7. Wilder KJ, Guise JM, Perrin NA, Hanson GC, Hernandez R, Glass N. Knowledge, Awareness, Perceptions, and Use of Emergency Contraceptives among Survivors of Intimate Partner Violence. Obstetrics and Gynaecology International 2009; 1-6.
8. Mir AS, Malik R. Emergency contraceptive pills: exploring the knowledge and attitudes of community health workers in a developing Muslim country. North American Journal of Medical Sciences August 2010; 2(8): 359-64.
9. Obionu CN, Okonkwo JEN. Knowledge and Practice of Emergency contraception by Nigerian Adolescent Females. Tropical Journal of Obstetrics and Gynaecology 1999; 16(1): 27-31.
10. Young LK, Farguhar CM, Mc Cowan LME et al. The contraceptive practice of women seeking termination of pregnancy in an Auckland clinic. NZ Med J 1994; 107:189-91.
11. Reena S, Kumar SD, Radha J, Kumkum S, Neela S, Sushmita S. Contraceptive knowledge attitude and practice (KAP) survey. J Obstet Gynecol India November/December 2005; 55(6): 546-50.
12. Reeti M, Poonam G, Deepti D, Anju H. Knowledge of emergency contraception among women coming for induced abortion. J Obstet Gynecol India May/June 2006; 56(3): 233-5.
AUTHORS:
1. Vandana Khargekar
2. R. G. Geethalakshmi

PARTICULARS OF CONTRIBUTORS:
1. Assistant Professor, Department of Community Medicine, The Oxford Medical College Hospital and Research Centre, Yadavanahalli, Bangalore.
2. Professor, Department of Community Medicine, J.J.M Medical College, Davangere.

FINANCIAL OR OTHER COMPETING INTERESTS: None

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Vandana Khargekar,
“Shanta Durga Sadan”,
Opp. Daivajna Bhavan,
Vidyanagar,
Hubli-580031,
Karnataka, India.
E-mail: vandankhargekar@yahoo.co.in

Date of Submission: 22/01/2015.
Date of Peer Review: 23/01/2015.
Date of Acceptance: 11/02/2015.
Date of Publishing: 17/02/2015.