

Original Research Article

Cognition of emergency contraception: an assessment among WRA in a rural community of West Bengal

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ABSTRACT

Background: Emergency Contraception (EC) is an important option for women exposed to unprotected sex to prevent unintended pregnancy and induced abortion. EC has a potential to offer women an important option for fertility control. The objective of the study was to assess knowledge about Emergency Contraception among currently married women of reproductive age in a rural area of West Bengal.

Methods: A community based cross sectional study was conducted on 608 currently married women of reproductive age for 1 year from May 2017 to April 2018. Questionnaire was administered to women on knowledge of emergency contraception (EC). Data was analyzed in SPSS version 16.

Results: Among the study participants 66% had knowledge of emergency contraception. A small number (8.9%) of the total participants ever used EC to prevent pregnancy. Only 65.3% of them had correct knowledge regarding timing of EC. Effectiveness of post-coital pill was known to them while none of these women were aware of the existence of Intra Uterine Contraceptive Device (IUCD) insertion as an option for EC.

Conclusions: Marked lacunae were observed regarding knowledge and practice of emergency contraceptives among the WRA. Proper and correct knowledge on Emergency Contraception is of urgent need among all sexually active women especially in this country for population stabilization.

Keywords: Emergency contraception, Knowledge, WRA, Rural area

INTRODUCTION

Unintended pregnancy and induced abortion are important public health issues for women of reproductive age group all over the world. Unsafe sexual practices and failure or nonuse of contraceptives are major causes of unintended pregnancies and or unsafe abortion. Regarding the latter women in developing countries usually make several attempts to terminate pregnancy often without medical help leading to maternal morbidity and mortality.¹

Emergency Contraceptive Pills (ECP) can be used to reduce the number of unintended pregnancies and induced abortions. Emergency post coital contraception may be defined as the use of a drug or device to prevent pregnancy after unprotected sexual intercourse; it has been shown to be safe and effective.²

In India, there is increase in population which urgently calls for more accessible, available and effective use of emergency contraception to control fertility. Emergency contraception is required for two main groups of people. One group is for those using standard methods of

temporary contraceptives which have either failed or have been inadequately or incorrectly used. The other group is sexually active with unmet need of contraception, often practicing traditional methods as contraceptive in place of conventional family planning methods.

Different methods of EC are available including the use of combination estrogen and progestin, progestin alone and post coital insertion of an intrauterine device. 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. An Intrauterine Device (IUD) can be inserted up to 5 days after the first act of unprotected sex.³ Ezy Pill or Emergency contraceptive pills, also known as ‘ECPs’ or ‘morning after pills’, containing 1.5 mg of levonorgestrel, are birth control measures for women that may be used in the event of unprotected sexual intercourse to prevent pregnancy. These pills are available with healthcare providers and at public healthcare facilities. It can be taken within 72 hours of the unanticipated and/or unprotected sex. It does not cause an abortion if pregnancy has already taken place.

There are many articles, published on emergency contraception in the developed world on different issues regarding accessibility, availability, efficacy, safety of EC but in developing countries the information is limited till date. So, studies to assess the knowledge of the community is very essential in order to universalize the message of emergency contraception which in the long run will help in improvement of maternal and child health. The objectives of this study were to estimate the knowledge of EC among currently married women of reproductive age and also to assess the associated factors of unsatisfactory knowledge of emergency contraceptives.

METHODS

A community based cross-sectional study was carried out in a rural area of Hooghly District under the purview of Rural Health Unit & Training Center (RHU & TC) which is the rural field practice area of All India Institute of Hygiene and Public Health, Kolkata. The total number of study participants were 608 currently married women of reproductive age (15 to 49 years). In the total study period of 2 years, 1 year was spent for data collection (May 2017 to April 2018).

Unintended pregnancy continues to be a major public health issue in the India. Unmet need of family planning leads to unintended pregnancy which can be prevented by Emergency Contraception after unprotected sexual activity. So, prevalence of unintended pregnancy was considered for sample size calculation.

According to census 2011, unintended pregnancy was 24% in India. Considering this data, taking confidence level of 95%, relative error as 15% and using the formula:

$$\text{Sample size} = (Z_{1-\alpha/2})^2 pq/L^2 = 1.96 \times 1.96 \times 24.3 \times 75.7 / \{ (15 \times 24.3) / 100 \}^2 = 533$$

(p= prevalence, q= 100-p, L= allowable error, $Z_{1-\alpha/2}$ for 95% confidence level = 1.96)

Taking non-response as 15%, minimum sample size = 533+80= 613.

Final analysis was done on 608 currently married women.

Sixty Four villages were covered by RHU&TC, Singur.



Six Villages were selected randomly and Line listing of all currently married women in the selected villages from reproductive child health register.



Number of participants from each village was calculated by population proportionate to size sampling.



After calculating the number of participants from each village, required number of.

Samples were drawn from list of each village by simple random sampling.

Table 1: Number of participants calculated by population proportionate to size sampling.

Names of selected villages	Population of village (women of reproductive age group)	Sample taken from village
Anandanagar	832	147
Balitipa	171	30
Baghdanga	98	17
Nanda	702	124
Nasibpur	474	84
Dewanbheri	1194	211
	3471	613

Complete data was obtained from 608 women. After having informed written consent from the study participant, face to face interview was conducted with a pre-designed and pre-tested schedule. According to objective of the study, the schedule was prepared in the local language.

It was then corrected by a group of experts of the institute. The pretesting was carried among 30 currently married women. After pretesting necessary modifications were made. Also utmost care was taken to make the language as simple as possible so that the respondents, even if illiterate, could understand the questions easily.

The content of the schedule was as follows:-

Independent variables

- Socio demographic characteristics
- Reproductive characteristics
- Pregnancy intention of last pregnancy
- Past use of modern contraceptive methods
- Women autonomy (assessment of women empowerment)

Dependent variable

- Knowledge of emergency contraception

The study participants were asked 3 three following questions.

- Have you heard about Emergency contraceptives? Yes/No
- Can you name at least one EC?
- What is the correct timing of use of EC?

Those who answered correctly for all the three questions were considered to have satisfactory knowledge of EC.

Recorded data was analysed using appropriate statistical methods represented by various tables, diagrams etc. and statistical significant tests were applied accordingly with the use of Statistical Package for Social Sciences (SPSS) version 16. Covariates for satisfactory knowledge of emergency contraception were elicited by univariate and binomial multivariable logistic regression. The study was approved by Institutional Ethics Committee.

RESULTS

Within the time period 608 study participants gave complete set of information and so final analysis was carried on 608 women.

Among the study participants 401 (66%) had satisfactory knowledge of emergency contraception.

Among the study participants only 54 (8.9%) had used emergency contraception in the past.

Among the study participants 401 (66%) had the knowledge of emergency contraception. Mean age of the study participants was 29.8± (8.4) years. Maximum (63.5%) women belonged to age group of 20–34 years

while 8% were adolescents. About 93.4% study participants belonged to general caste, 5.8% to schedule caste group, and 0.8% to other backward classes. In respect to religion 95.2% women were Hindus and the rest were Muslims. Among the study participants 6.2% were illiterate and about 50.3% had completed up to middle school level of education. Only 15.5% women had higher secondary and above degree. By occupation, only 10.5% women worked for pay and 89.5% of them were home makers. Most (47.7%) of the participants belonged to middle class.

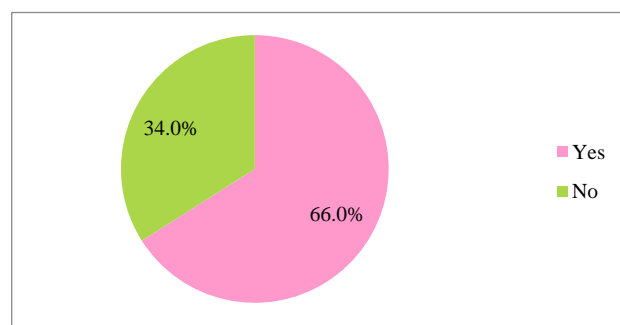


Figure 1: Pie diagram showing the distribution of study participants according to knowledge of emergency contraception (n=608).

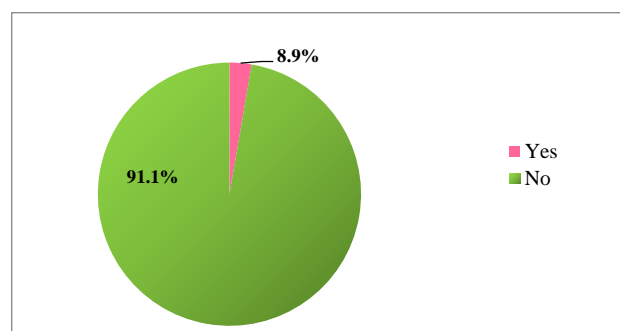


Figure 2: Pie diagram showing the distribution of study participants according to use of emergency contraception (n=608).

Majority of the study participants (69.8%) were married within 18 years of age and 63.7% of women had their first child birth within 20 years of age. About 91.7% of study participants had one or two living children. Regarding woman autonomy 31.6% of the women were not empowered.

The main source of information of EC was media (47.7%) predominantly television. The other sources were neighbour (8.9%), medical shopkeeper (3.1%), relative (2.1%), husband (2.0%), Health Worker (1.6%), Private Doctor (0.3%).

Among the study participants who had heard about EC, only 65.3% of them knew the correct timing of use of EC that is immediately after unprotected sexual activity.

Table 2: Factors associated with unsatisfactory knowledge of emergency contraception: univariate and multivariable binomial logistic regression (n=608).

Independent variables	Study participants	Unsatisfactory knowledge of EC	OR (CI 95%)	P value	AOR (CI 95%)	P value
Age (in completed years)						
>30	241	120 (49.8)	3.29 (2.32 – 4.67)	< 0.001	2.86 (1.83–4.46)	< 0.001
≤30	367	281 (76.6)	1			
Level of Education						
Up to middle class	386	198 (49.4)	10.14 (6.08 -16.90)	< 0.001	5.63 (3.25 – 9.76)	< 0.001
Above middle class	222	203 (50.6)	1			
Level of education of Husband						
Up to Primary	84	36 (42.9)	3.06 (1.91 – 4.90)	< 0.001	1.43 (0.85 – 2.82)	0.17
Above primary	524	365 (69.7)	1			
Type of family						
Nuclear	332	205 (61.7)	1.51(1.07 – 2.13)	0.004	1.14 (0.76 – 1.73)	0.51
Joint	276	276 (71.0)	1			
Occupation						
Work for pay	64	30 (46.9)	2.43 (1.44 – 4.10)	0.001	1.32 (0.71 – 2.44)	0.37
House wife	544	371 (68.2)	1			
Age at marriage						
<18 years	252	134 (53.2)	2.64 (1.87 – 3.72)	< 0.001	1.54 (0.84 – 2.82)	0.16
≥18 years	356	267 (75.0)	1			
Age at 1st pregnancy						
<20 years	306	166 (54.6)	12.8 (7.15–23.04)	<0.001	2.29 (0.90 – 5.83)	0.08
≥20 years	302	233 (4.5)	1			
Age at 1st child birth						
<20 years	276	149 (54.0)	2.68(1.90 – 3.79)	<0.001	1.86 (0.80 – 2.40)	0.16
≥20 years	332	252 (75.9)	1			
Number of pregnancies						
>2	98	50(51.0)	2.11(1.36 – 3.28)	0.001	1.40 (0.81 – 2.44)	0.22
≤2	510	351(68.8)	1			
Past use of modern contraceptive method						
No	506	319 (63.0)	2.40 (1.42 – 4.04)	0.001	1.82 (1.01 – 3.34)	0.01
Yes	102	82 (80.4)	1			
Women empowerment						
Not empowered	192	96 (50.0)	2.74 (1.92 – 3.92)	<0.001	2.11 (1.41 – 3.19)	<0.001
Empowered	416	305 (73.3)	1			

The enter method was used to perform logistic regression. Nagelkarke square was 0.34 which inferred that 34% variance in outcome or dependent variables (Unsatisfactory knowledge of emergency contraception) could be explained by independent variables. Non-significant Hosmer-Lemeshow (0.36) test supported good fit of logistic regression model.

In univariate logistic regression age, education of study participants and their husbands, family type, occupation, age at marriage, age at 1st pregnancy and 1st child birth, number of pregnancies, past use of contraceptives and women empowerment were significantly associated with unsatisfactory knowledge of emergency contraception. But in multivariable logistic regression education of husband, family type, occupation, age at marriage, age at 1st pregnancy and 1st child birth, number of pregnancies

lost their significance while increased age, poor literacy level, non use of contraceptives and poor empowerment continued to be significantly associated with unsatisfactory knowledge of Emergency Contraceptives.

DISCUSSION

The Government of India launched the family planning program in 1952 with the objective of reducing birth rate. Under the family planning program, temporary and permanent methods of contraception were introduced by the Department of Family Welfare, Government of India.⁵ However, contraceptive failure and unwanted pregnancy lead to high abortion rate.⁶ Again, it is a universal fact that Emergency Contraception or postcoital contraception prevents unintended pregnancy after unprotected sexual intercourse and or failure of modern contraception.⁶

The current study revealed that 401 (66%) study participants had satisfactory knowledge of EC which was much higher than the studies conducted by Kose et al in Maharashtra.⁷ Irfan et al in Pakistan, where proper knowledge was 33%, 10% respectively.³ The study by Sing et al revealed that correct knowledge about use of EC among WRA attending OPD in Raipur was 74.4% and higher than the current study.⁸

In respect to knowledge regarding types of oral EC it was proper among those who had previously used contraceptives. However none in the study knew that Cu T might be used as EC. These findings were similar to the study carried out by Kose et al in Maharashtra.⁷

In the present study the main source of information of EC was media (47.7%) predominantly television which was similar to the studies on EC conducted by Kose et al in Maharashtra, India and Irfan et al in Pakistan.^{3,7}

The study conducted by Sing et al among 500 women of reproductive age group (16 years to 40 years) attending OPD of Obstetrics and Gynaecology Department of IGMC and RI, Pondicherry showed awareness level of emergency contraceptives to be only 5.4% while only 2% had ever used emergency contraceptives. These were much lower than the present study (66% participants had knowledge of EC and 8.1% used EC). In the above said study media was not the main source of information of EC which was different from the present study.⁹

The study conducted by Verma et al among a total of 420 currently married women aged 18-45 years in an urban area of Delhi, about 9% ever used EC which was similar to present study.

The study conducted by Mishra et al among a total of 385 married female attending OPD of Obstetrics and Gynecology at RML Hospital, Lucknow, revealed that 54% had the correct knowledge about time of use of EC but it was lower than present study (65.3%).¹⁰

Community based cross-sectional study by Rikar conducted in 286 married women in age group 15-45 yrs residing in the field practice area of Urban Health Centre attached to Department of Community Medicine, Bagalkot, Karnataka, only 12% had knowledge of EC which was much lower than current study (66%).¹¹

CONCLUSION

In conclusion our data confirms that there is a huge gap between knowledge and use of EC. EC is important option for women exposed to unprotected sex and thus prevent unintended pregnancy and induced abortion. For this awareness regarding EC is of utmost need. It is also required to popularize EC in India with the help of health care providers, media and government facilities.

Education on contraception especially about types and correct timing of use of EC is to be emphasized. Counseling about regular use of modern methods of contraception, keeping EC for emergency use only must be done for all eligible couples.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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