



“AN EPIDEMIOLOGICAL STUDY CONDUCTED TO ASSESS THE PRACTICE OF EMERGENCY CONTRACEPTIVE METHOD AMONG WOMEN UNDERGOING MEDICAL TERMINATION IN MATERNITY HOMES, IN METROCITY.”

Dr. Priyanka Chakkarwar and Dr. Sophia D. Fernandes*

¹Assistant Professor Pune Maharashtra India.

²Assistant Professor Cooper Hospital and Medical College, Mumbai.

***Corresponding Author: Dr. Sophia D. Fernandes**

Assistant Professor Cooper Hospital and Medical College, Mumbai.

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ABSTRACT

Backgrounds: In India almost all women in the reproductive age group has risk of either unplanned or unwanted and these pregnancies add to the population burden or the women abort this pregnancy. Emergency contraception or post-coital contraception, refers to methods of contraception that can be used to prevent unplanned or unwanted pregnancy in the first few days after unprotected intercourse. This study was undertaken to know about the unmet need regarding FP, their use and failure rate of emergency contraception among the subjects. **Objectives:** Determine the correlation between the socio-demographic & obstetric variables with the factors influencing use of emergency contraception & to find the prevalence of MTP due to failure of E contraception in study population. **Materials and methods:** A Cross-sectional study was carried out among 199 females of reproductive age group in urban area of metro city Maharashtra. A predesigned, Semi-structured validated questionnaire was used to collect relevant data and analyzed using SPSS version 21. **Results:** 199 women were participated in the study. 40(20.1%) women used I-pill while, 17(8.54%) women had taken medicines from private practitioner for termination of pregnancy. 17.5% subjects observed excessive vaginal bleeding as side effect of ECP. **Conclusion:** This study demonstrated lack of awareness, knowledge and utilization of emergency contraceptives. Hence behavioral change strategies should be considered to improve knowledge and bring qualitative change on use of emergency contraception.

KEYWORDS: Reproductive age group women, Emergency contraceptive pills, MTP, family planning methods, unmet needs.

INTRODUCTION

In India almost all women in the reproductive age group has risk of either unplanned or unwanted and these pregnancies add to the population burden or the women abort this pregnancy. **Termination of pregnancy** is one of the oldest methods of averting unwanted births.^[1] About 210 million pregnancies that occur every year 80millions are unintended and resulting in 30millions unplanned births, 40millions abortions and 10millions miscarriages and 60% of abortions are done in unsafe conditions.^[2,3]

The GOI introduced ECP in the National Family Welfare Program in 2003as one of the strategy to prevent unwanted pregnancy.^[4]

Emergency contraception or post-coital contraception, refers to methods of contraception that can be used to prevent unplanned or unwanted pregnancy in the first few days after unprotected intercourse.^[5]

Abortion is theoretically defined as termination of pregnancy before the foetus becomes viable (28 weeks of gestation), or termination of pregnancy when the foetus weighs approximately 1000gm.^[6] While, **Medical Termination of Pregnancy** (MTP) is safe and legal termination of pregnancy on Medical ground.^[6]

There is a need to make more women aware of contraceptive methods and the risk associated with MTP and side effects associated with emergency contraceptive methods. So that, unwanted pregnancy can be avoided safely and conveniently, particularly for those who are inconsistent contraceptive users as well as those have never used a contraceptive method.

So, this study was undertaken to know about the unmet need regarding FP, their use and failure rate of emergency contraception among the subjects.

Rationale of the Study

This study was undertaken to know about the unmet need regarding FP, their use and failure rate of emergency contraception among the subjects.

There is a need to make more women aware of contraceptive methods so that unwanted pregnancy can be avoided safely and conveniently, particularly for those who are inconsistent contraceptive users as well as those who have never used a contraceptive method.

An understanding of these determinants in society would offer insight into the sociocultural aspects of abortion that could be of use in devising interventions, policies and programs pertaining to maternal and child health.

AIM AND OBJECTIVES

Aim

“An Epidemiological Study Conducted To Assess The Practice Of Emergency Contraceptive Method Among Women Undergoing Medical Termination In Maternity Homes, In Metrocity.”

Objectives

1. To study socio-demographic and obstetric profile and determinants influencing use of emergency contraception
2. Determine the correlation between the socio-demographic & obstetric variables with the factors influencing use of emergency contraception
3. To find the prevalence of MTP due to failure of E contraception in study population.
4. To provide recommendations for the client oriented quality MTP services based on the study findings.

MATERIALS AND METHODOLOGY

Cross sectional study conducted from December 2013 to December 2015 among women undergoing MTP in study area during study period in Maternity homes under Municipal Corporation of Metropolitan city were study units.

Inclusion criteria

Inclusion criteria were women in the age group 19-49 years undergoing MTP; women who gave consent to participate in study.

Exclusion criteria

Exclusion criteria were women in the age group <18 years undergoing MTP as, it is a matter of legal concern; women not in a state to participate in the study e.g. women with haemorrhage, shock, sepsis, etc.

Sample size

The sample size for the study was calculated using the formula --

$$n = 4pqN / e^2 (N-1) + 4pq$$

So, the sample size for study was 199.

Methodology

Two of the listed maternity homes were selected through simple random sampling technique. All women fulfilling inclusion criteria were included in the study. Permission to carry out the study was obtained from the Department of Community Medicine and also from appropriate authority of Municipal Corporation and the respective maternity homes. Approval for conducting the study was taken from the Institutional Ethics committee.

Data was collected using semi structured and validated questionnaire. Informed consent was obtained from participants. Face to face exit interview of participants was conducted to collect the data.

Data was analyzed using SPSS statistical software version 21.0. Data was presented in the form of tables and necessary graphs. Quantitative data was expressed in mean and percentage. Association between variables was analyzed using statistical tests like Chi-square test, Fisher's exact test.

RESULTS

All 199 (100%) study subjects were married women. The mean age at marriage of the wife and husband was 21.41 years and 24.52 years respectively. The mean age of the women undergoing MTP was 28.41 years. The mean number of pregnancies not counting current pregnancy was 2.05. 35 (89.74%) subjects underwent abortion once and 4 (10.26%) subjects had abortions twice. 86 (46.73%) subjects have two live children. Currently, couple protection rate was =138 (69.35%).

Unmet need for FP (%) = 23.12%. Reasons for unmet need for family planning was unavailability of FP methods 21%, unacceptability 18%, wanted child 14%, under someone's pressure 4%, against religion 2% and unaware of FP method 2%.

Only 4 women used I-pill as emergency contraceptive in the past. Side effects observed among these subject was zero percent. Not a single woman needed to undergo MTP after taking I-pill in the past. **I-pill failure was zero percentage.**

57(28.64%) women had tried some other method of abortion. **40(20.1%) women used I-pill while,** 17(8.54%) women had taken medicines from private practitioner for termination of pregnancy. Not a single woman used traditional methods for abortion.

2(5%) women used ECP twice till now.

Side effect (Only Excessive Vaginal Bleeding) observed after taking I-PILL= 7/40= 17.5%.

Table 1: Distribution of subjects according to their socio-demographic profile (n=199).

Type of family	Frequency	%
Nuclear	111	57.78
Joint Family	64	32.16
Three generation family	24	12.06
Total	199	100
Age at marriage (years)	Wife (%)	Husband (%)
≤19	69 (34.67)	13 (06.53)
20-24	94 (47.24)	97 (48.74)
25-29	36 (18.09)	60 (30.15)
≥30	00 (0.00)	29 (14.57)
Current age (years)		
20-25	30 (15.07)	7 (03.52)
25-30	106 (53.27)	54 (27.13)
>30	63 (31.66)	138 (69.35)
Education		
Illiterate	19 (09.11)	22 (10.55)
Primary education	42 (21.11)	24 (12.06)
Secondary education	49 (24.62)	79 (39.70)
Higher secondary education	64 (32.16)	42 (21.10)
Graduate	25 (12.56)	32 (16.08)
Total	199 (100)	199 (100)
Subjects occupation status	Frequency	Percentage (%)
Working	57	28.64
Not-working (Home-maker)	142	71.36
Socio-economic status		
Upper class	37	18.59
Upper-middle class	46	23.12
Lower-middle class	43	21.61
Upper-lower class	54	27.14
Lower class	19	09.55
Total	199	100

Table 2: Distribution of subjects according to the history of use of I-pill, n=199.

Variable	Yes	No
Used I-pill	40	159
Tried any other method of termination of pregnancy	57(28.64%)	142(71.35%)
I-pill	40(70.17%)	
Medicine from Private practitioner	17(29.83%)	
	Yes	No
Using family planning method, n=199	138	61
Used I-pill, n=40	14(10.14%)	26(42.62%)

Table 3 Statistical association among different variables.

Statistical association among different variables. Education of women				
Upto- school (%)	secondary	Higher secondary school (%)	Graduation (%)	Total (%)
MTP in GA (weeks)				
≤5	6 (05.45)	11 (17.19)	0	17 (08.54)
6-8	67 (60.91)	21 (32.81)	16 (64.00)	104 (52.26)
9-11	37 (33.64)	32 (50.00)	9 (36.00)	78 (39.19)
Total	110 (100)	64 (100)	25 (100)	199 (100)
Fisher's Exact test = 17.799, p=0.001				
Used FP method immediately after marriage				
Yes	65 (59.09)	34 (53.13)	14 (56.00)	113 (56.78)
No	45 (40.91)	30 (46.88)	11 (44.00)	86 (43.22)
Total	110	64	25	199
Chi Square test= 0.594, df=2, p=0.743, Fisher's Exact test=0.627, p=0.757				

Currently using FP method				
Yes	81 (58.70)	32 (23.19)	25 (18.12)	138 (100)
No	31 (50.82)	21 (34.43)	9 (14.75)	61 (100)
Chi Square test= 2.752, df=2, p value=0.258, Fisher"s Exact test=2.681, p=0.258				
Currently using FP method				
Number of children	Yes (%)	No (%)		Total (%)
1	20 (11.05)	28 (15.47)		48 (26.52)
2	69 (38.12)	17 (09.39)		86 (47.52)
3 or more	38 (20.95)	8 (04.41)		47 (25.96)
Chi square test=26.376, df=2, p<0.001				

The study shows significant association between

1. Education and gestational age at the time of MTP (p value=0.0009<0.05).

2. Couples having number of children and currently using FP method (p≤0.001) and
3. Between current age of women and use of FP method, (p=0.01388).

Table 4: Association between education of women and tried any other method for termination of pregnancy

Tried any other method of abortion	Upto secondary school	Higher secondary school	Graduation	Total
Yes	37 (64.91%)	11 (19.30%)	9 (15.79%)	57(100%)
No	73 (51.41%)	53 (37.32%)	16 (11.27%)	142
Total	110	64	25	199
Chi square test=6.112, df=2, p value=0.047 <0.05				

Education	I-Pill (%)	Medication from private hospital (%)	Total (%)
Upto secondary school	27 (67.50)	10 (14.29)	37 (64.91)
>Secondary school	13 (32.50)	7 (41.18)	20 (35.09)
Total	40 (70.17)	17 (29.82)	57 (100)
Chi square test=0.3943, df=1, p value=0.53 >0.05			

DISCUSSION

- Ravish et al.,^[7] reported that, 21.4% women had history of one or more abortions in the past. Savita et al.,^[8] reported, 20% women had history of one abortion, 4% women had two abortions and 6% women had history of three abortions in the past. This finding indicates that women were considering abortion as a method of contraception.
- Similar study conducted by Suneeta Mittal et al,^[9] reported that 15(50.28%) women had previously undergone MTP. and no woman used I-pill in the past.
- Gupta et al,^[11] reported i-pill was effective in all consumers and only one female suffered from side effect in the form of excessive bleeding. Kiran et al.,^[12] reported, no woman used I-pill in the past. □ Common finding i.e. minimum I-pill usage and its side effect was observed among above studies including the current study that.
- DLHS-4,^[10] reported that current use of family planning methods observed was 66.9% and 65.3 % in urban population. **Total unmet need** for family planning was 19.0%, unmet need for spacing was 10.8%, and unmet need for **limiting family size** was 8.2%.
- Majority women were using barrier and hormonal method of contraception which needs sustained motivation for their regular and appropriate use.

They should be motivated to use IUD or sterilization as a method of contraception.

- 184(92.96%) pregnancies were unplanned, unwanted and/or due to contraceptive failure. Only 15 pregnancies were planned and needed to undergo MTP due to some medical reason. The above findings reemphasises the need to improve the awareness of women regarding the regular and appropriate use of contraception so that, the unwanted pregnancies and pregnancies due to contraception failure can be prevented. Women should be made aware regarding the awareness of adverse effects of MTP.
- 57(28.64%) women had tried some other method of abortion. 40(20.1%) women used I-pill while, 17(8.54%) women had taken medicines from private practitioner for termination of pregnancy before coming for MTP.
- This finding showed that the women preferred to undergo safe termination of pregnancy rather than to resort to traditional unsafe method.
- DLHS-4^[10] reported use of emergency contraceptive pill was 0.9%.
- Tatak Tesfaye et al.,^[14] reported that 7(17.03%) women mentioned pills as emergency contraception but none of them ever used emergency pill.

CONCLUSIONS

1. Though the maximum women were using some method of contraception needed to undergo termination. This means that the use of contraception was not effective to prevent unwanted pregnancies.
2. Majority women were using barrier and hormonal method of contraception which needs sustained motivation for their regular and appropriate use. They should be motivated to use IUD or sterilization as a method of contraception.
3. View to ward MTP as easy method of birth control following non-use of or inconsistent use of contraception needs to be changed.
4. 40 women had used I-pill were needed to undergo MTP, this showed that there is lack of knowledge, attitude and correct practice of I –pill among these women.

LIMITATIONS

1. In study methodology, in the inclusion criteria, unmarried girls and women age <18 years were excluded due to its legal implications.
2. This study was conducted among women admitted in hospital for MTP. However study conducted in community setting would help to provide better understanding about I-PILL.
3. The data was collected through interview of the study subjects. So there may be interviewer bias.

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