Knowledge and Practice of Emergency Contraceptives among Married Women: A Community Based Cross Sectional Study

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Abstract:

Introduction: Emergency contraception (EC) serves as a backup in case regular contraception fails, can remarkably bring down the risk of a consequent unintended pregnancy and further complications. **Objectives:** To assess the knowledge and practice regarding EC among married women. To determine the association between knowledge regarding EC and socio-demographic variables of married women. **Method:** A cross-sectional study was conducted among urban slum areas of Jamnagar City with use of 30 cluster sampling technique in the year 2012-13. From each cluster 15 women of reproductive age group (15-49 years) were taken as study participants and total 450 married women were enrolled in the study. Statistical analysis was done by using appropriate statistical tests. **Results:** Out of total 450 study population, 30.22% women ever heard of emergency contraception (EC) among them all were aware about E-pills, Majority considered EC safe (80.88%). Very few women got knowledge from doctor (1.47%) and health workers (10.29%) only 31.23% women had ever used it. Women who were <30 years age old, well-educated and from upper socioeconomic status were more aware regarding EC. Nearly 50% women took E-pills because of timing was miscalculated (25.81%) or they were not using any contraceptives (22.58%). All the women who had practiced EC, revealed that it is 100% effective method for prevention of unwanted pregnancy in case of emergency. **Conclusion:** In this study, knowledge and usage rate of EC was found limited. Strategies to promote EC use should be focused on spreading accurate knowledge about it through information education and communication by health care providers and other audio-visual media.

Key Words: Emergency contraception, urban slum, married women, knowledge

Introduction:

A single highest intimidation to India's health, political, economic and social development is the flourishing population growth.^[1] pregnancy is a valuable happening in the life of any women. Unfortunately, all pregnancies are not greeted. Ideally a child should be born because it is wanted, not because it cannot be prevented.

In India, about 210 million pregnancies that occur every year 80 million are unintended, resulting in 30 million unplanned births, 40 million abortions and 10 million miscarriages. Two fifth of the total abortions

done in unsafe conditions.^[2,3] As stated by the consortium on national consensus for medical abortion in India (2008), around 20,000 women lose one's life 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.^[4,5] Reasons for unplanned pregnancies are either woman's failure to use a contraceptive method or failure to use a method correctly.^[6]

Emergency contraception (EC), otherwise known as postcoital contraception serves as a backup in case

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regular contraception fails, can markedly reduce the risk of a resultant unintended pregnancy and further complications.^[7]

Even though, department of health and family welfare introduced EC in the form of emergency contraceptive pills (E-pills) in the national family welfare programme since the year 2002-03, the knowledge and use regarding EC remains still very low and that may be due to very less educational programmes were given to the community parallel to the introduction of it.^[2]

Keeping in view the above points the study was undertaken to assess the knowledge and practice regarding emergency contraceptives among married women of reproductive age group.

Method:

A cross-sectional study was conducted during the year 2012-13 in a municipal corporation area, Jamnagar, Gujarat consist of 19 wards, 64 slum areas and 5, 29,308 total population as per census 2011.^[8] Sample size was calculated by using the formula $n = \frac{4pq}{l^2}$, where $p = 56.5\%$ (proportion of 15-49 years currently married women using any family planning method)^[10], $q = 100 - p$, allowable error (l) = 10% and non-response rate was considered 20%. Thus total sample size calculated was 370 and cluster sampling technique was used for the study.^[9] Total 30 clusters were identified from urban slum areas of the

city and from each cluster 15 women in the reproductive age group (15-49 years) was included in the study. First house was selected by simple random method and then study subjects were interviewed by house to house visit till 15 women were enrolled from each cluster. Total 450 women were enrolled in this study. Data was collected by using pre-designed, pre-tested Proforma. Verbal consent was taken from each study participant prior to data collection. The Study was approved by the ethical committee of the institute. The community was very cooperative, actively participated and provided full support throughout the study. Socioeconomic class determined on the basis of modified Prasad's classification (1961) which take into consideration average consumer price index (CPI) of the year 2012 which was 969.^[11] Data were entered in MS Excel spread sheet and was analysed using SPSS ver 20.

Chi square test and fisher exact test were used to find out the association between variables. A p value of less than 0.05 was considered as statistically significant difference.

Results:

Out of total 450 study population, 57.56% were in the age group of 25-34 years, majority were Hindu (88%). Nearly 40% women were educated up to primary while very few were graduated (2.88%). More than two third of women were housewives (76.66%)

Figure 1: Distribution of women regarding knowledge of emergency contraceptives (n=450)

Figure 2: Distribution of women regarding practice of emergency contraceptives (n=136)

and 82.22% were belonged to middle socioeconomic class. Figure 1 depicts that 30.22% women ever heard of emergency contraception (EC).

Table 1 shows association between awareness of women about emergency contraceptives and their socio-demographic characteristics. It was found that awareness is significantly more among those women who were less than 30 years old, better educated, living in nuclear family and occupationally independent than others. These differences found statistically significant. The difference between religion of study population with awareness about EC was not found statistically significant.

Table 2 shows the knowledge of women who ever heard of EC. Those women who ever heard of EC, all were aware about E-pills (I pill/pill72/unwanted72) but only 2.20% women were aware about IUCD (Intra-Uterine Contraceptive Devices). Not a single woman knew that OCPs (Oral Contraceptive Pills) can also be used as EC. Majority of women considered EC safe (80.88%). Irregular menses as a common adverse effect of E pills mentioned by majority of women (81.61%) followed by nausea/vomiting (37.50%), heavy bleeding (19.12) and infertility (1.47%). Though

E pills is available as over the counter drug but still majority of women replied that it can't be obtained without prescription. However nearly 85% women had correct knowledge that EC can't be used as regular method of contraception. Almost 75% women got knowledge about emergency contraceptives through audio-visual media like television/radio. Very few women got knowledge from doctor (1.47%) and health workers (10.29%). Almost all women knew that it can be available at medical store (97.05%).

Figure 2 depicts distribution of women regarding practice of emergency contraceptives. Among those women who have heard of EC, only 31.23% women had ever used it.

Table 3 shows the experience of women who had used Emergency Contraceptives. Nearly 50% women had taken directly from medical store by taking self-decision while only 16.13% women had consulted doctor or health worker before taking it. Nearly 50% women took E-pills because of timing was miscalculated (25.81%) or they were not using any contraceptives (22.58%). Other reasons given by the study population were missed pills (19.35%) and condom torn or slipped (12.90%). Irregular menses

Table 1: Association between awareness of women about emergency contraceptives and their socio demographic characteristics

Socio- demographic Characteristic	Aware (%) n=136(30.22)	Not aware(%) n=314(69.78)	Total (%) n=450(100.00)	p-value	Chi square value/ Fisher's exact test value,d.f.
Age group in years					
15 – 19	02(50.00)	02(50.00)	4(100.00)	<0.05	Fisher's exact test value= 40.237 d.f.=5
20 – 24	28(32.18)	59(67.82)	87(100.00)		
25 – 29	55(38.46)	88(61.54)	143(100.00)		
30 – 34	44(37.93)	72(62.07)	116(100.00)		
35– 39	04(5.80)	65(94.20)	69(100.00)		
≥40	03(9.68)	28(90.32)	31(100.00)		
Religion					
Hindu	125(31.57)	271(68.43)	396(100.00)	>0.05	χ2= 2.82 d.f.=1
Muslim	11(20.37)	43(79.63)	54(100.00)		
Literacy status of women					
Illiterate	05(4.07)	118(95.93)	123(100.00)	<0.05	Fisher's exact test value= 116.103 d.f.=4
Primary	44(24.58)	135(75.42)	179(100.00)		
Secondary	41(49.40)	42(50.60)	83(100.00)		
Higher Secondary	35(67.30)	17(32.70)	52(100.00)		
Graduate and above	11(84.62)	02(15.38)	13(100.00)		
Occupation of wife					
Housewife	96(27.83)	249(72.17)	345(100.00)	<0.05	Fisher's exact test value= 77.883 d.f.=4
Farmer	07(77.78)	02(22.22)	9(100.00)		
Service	27(81.82)	06(18.18)	33(100.00)		
Business	04(80.00)	01(20.00)	5(100.00)		
Labourer	02(3.45)	56(96.55)	58(100.00)		
Type of family					
Nuclear	72(35.12)	133(64.88)	205(100.00)	<0.05	χ2= 4.28 d.f.=1
Joint	64(26.12)	181(73.88)	245(100.00)		
Socio-economic class					

I	30(78.95)	8(21.05)	38(100.00)	<0.05	Fisher's exact test value= 197.136 d.f.=4
II	72(72.00)	28(28.00)	100(100.00)		
III	22(23.40)	72(76.60)	94(100.00)		
IV	08(4.55)	168(95.45)	176(100.00)		
V	04(9.52)	38(90.48)	42(100.00)		

Table 2: Knowledge of women about emergency contraceptives (EC) who had ever heard of EC (n=136)

Variables	Numbers	Percentage
Which of these can be used as EC*		
I pill/pill 72/unwanted 72	136	100.00
IUCD	03	2.20
OCPs	00	00.00
Safety		
Safe	110	80.88
Unsafe	26	4.41
Adverse effects of ECPs*		
Infertility	02	1.47
Irregular menses	111	81.61
Heavy bleeding	26	19.12
Nausea vomiting	51	37.50
Don't know	04	2.94
Can you get ECPs without prescription		
Yes	20	14.70
No	116	85.30
Don't know	00	00.00
Can it be used as regular method of family planning		
Yes	12	8.82
No	114	83.82
Don't know	10	7.35
Source of knowledge about EC*		
TV/RADIO	101	74.26
News paper	21	15.44

Husband	51	37.5
Family member	51	37.5
Doctor	02	1.47
Health workers	14	10.29
Knowledge about availability of services*familyplanning services*		
Hospital	30	22.05
Health worker	12	8.82
Doctor	41	30.14
Medical store	132	97.05
Don't know	00	00

*multiple answers

Table 3: Practice of women who had ever used of emergency contraceptives (EC) in their reproductive life span (n=31)

Variables	Numbers	Percentage
No. of women who have used EC		
ECPs	31	100.00
IUCD	00	00
OCPs	00	00
Source of advice regarding use of ECPs		
By self decision	15	48.39
doctor/health worker	05	16.13
Friends/relatives	05	16.13
Husband	06	19.35
Reason for use		
Was not using any contraception	07	22.58
Timing was miscalculated	08	25.81
Condom torn or slipped	04	12.90
Missed pills	06	19.35
Don't remember	06	19.35
Side effects experienced after use*		
Abdominal pain	14	45.16

Irregular menses	19	61.29
Heavy bleeding	16	51.61
Nausea vomiting	02	6.45
No side effect	07	22.58
Is it effective in preventing unwanted pregnancy?		
Yes	31	100.00
No	00	00

*multiple answers

(61.29%), heavy bleeding (51.61%) and abdominal pain(45.16%) were major side effects experienced by study population after use of E-pills. All the women who had ever used of EC, revealed that it is 100% effective method for prevention of unwanted pregnancy in case of emergency.

Discussion:

In present study, 30.22% study participants were aware about EC. Similar result was found by Awasthi S et al^[6] in their study (29.31%). While awareness was noted higher (54.3%) in the study done by Lakshmi devi M et al^[7] and lower (12%) in the study done by Raikar VR et al^[12]

Women who were <30 years age old, well-educated and from upper socioeconomic status were more aware regarding EC as compared to others and this difference was found statistically significant. Similar results were noted by Wakankar et al^[13] and Raikar VR et al^[12] in their studies. We found statistically significant association between type of family and awareness regarding EC which was also found significant by Horne P et al^[14] (2014) in a study done in north west district of Delhi.

When inquired about different types of EC, all women were aware about E-pills, only 2.2% women knew regarding IUCD and nobody was aware about OCPs. Similar study conducted by Singh V et al^[2] in Raipur noted that only 43.5% study participants were aware about E-pills, 2.4% knew regarding OCPs and no one was aware about IUCD. In the study 88% women replied that EC is safe method of preventing unwanted pregnancy in case of emergency, while Kumar R et al^[15] mentioned in their study that almost half of the study population considers EC safe and Singh V et al^[2] noted

very few women (8.9%) considers it safe. E-pills can be available without prescription known by only 14.7% women in our study, and this finding is lower as compared to findings noted by Singh V et al^[2] (39.9%) and Kumar R et al^[11] (48.5%). Major source of information regarding emergency contraceptives was audio-visual media TV/radio found in this study (97.05%) which was similar to other studies.^[2,15,16] When inquired regarding other sources of information, present study shows that only 11.76% women got information through health care providers. This result was almost similar to the study done by Lakde et al^[16] while it is lower when compared to the study done by Kumar R et al^[11] (41.9%). All study participants in this study knew that E-pills can be available at medical store. Similar results were noted by Singh V et al^[2] (94.04%) and Kumar R et al^[15] in their study (61.0%) but very few women in this study knew that E-pills are also available through doctor (30.14%) or health worker (8.82%). These findings were almost comparable to study findings done by Kumar R et al^[15] (25.7%) and Lakde et al^[16] (20.6%).

Ever used of emergency contraceptives rate found in this study was 6.88%, which is higher when compared with DLHS-3 (2007-08) data of Gujarat (0.9%)^[17]. Among those women who ever heard of EC very few have used it. Majority of them took E-pill by making self-decision while very few women seek advice of health care providers before its use. Similar results were noted by Singh V et al^[2] in their study while Kumar R et al^[15] found that almost one third of women had consulted health care providers before its use. Most of the women had experienced irregular menses as side effect, similar finding noted in the

study done at Raipur.^[2]

In this study, those who had ever used EC, among them only 22.58% were not using any regular contraceptives while Kumar R et al^[15] and Singh V et al^[2] noted in their studies that almost half and three fourth study population were not using any regular contraceptives respectively. EC was found effective in preventing unwanted pregnancies by our study population which was similar to other study findings.^[2,15]

Conclusion:

Emergency Contraception has the potential to achieve the goal of “all pregnancies should be wanted” and it is handy tool to protect women from unwanted pregnancy and its unfortunate subsequent consequences. Though E-pills was introduced in the national family welfare programme by department of health and family welfare since long back and is easily available without prescription but in spite of that knowledge regarding it was found limited among women residing in urban slum area, which is one of the vulnerable sections of the community. Further very limited usage rate was found among those who ever heard of it. There is no active involvement of health care providers in providing knowledge regarding EC among study population.

Recommendation:

Strategies to promote emergency contraceptive use should be focused on spreading accurate knowledge about it through information education and communication by health care providers and other audio-visual media. Active involvement of health care providers is needed to increase knowledge about emergency contraception among women of reproductive age.

Limitation of study:

Continuous research in the same topic is desirable as the data are old and the same can be compared with the latest data.

Declaration:

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Conflict of Interest: Nil

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