MAK HILL Publications Research Journal of Medical Sciences

Research Article
doi: 10.59218/makrjms.2024.4.261.265

Assessment of Awareness Regarding Emergency Contraceptive Pills Among Female Patients Attending an Indian Tertiary Care Teaching Hospital

[1]Komal Chhabra, [2]Sonu Kumar Batham and [3]Nishi Mishra

[1]Department of Obstetrics and Gynaecology, Nand Kumar Singh Chauhan Government Medical College, Khandwa, Madhya Pradesh, India

[2]Department of Obstetrics and Gynaecology, Dr. Laxmi Narayan Pandey Government Medical College, Ratlam, Madhya Pradesh, India

[3]Department of Obstetrics and Gynaecology, Government Medical College, Satna, Madhya Pradesh, India

ABSTRACT

In India, a significant proportion of pregnancies occur without prior planning or desire, contributing to population growth or prompting women to resort to unsafe termination methods, resulting in severe health implications. Emergency contraception, stemming from recent trials and research efforts spanning the last decade, aims to mitigate the incidence of unintended pregnancies and subsequent abortions, representing a crucial intervention in addressing this issue. This study aimed to evaluate the level of awareness regarding contraception and emergency contraceptive pills (ECPs) among women of reproductive age. A cross-sectional study was conducted over a four-month period. Data encompassing demographic details, familiarity with various contraceptive methods, and awareness of ECPs were collected via an anonymous, pretested, structured questionnaire. Statistical analyses were performed using Microsoft Excel and Epiinfo software. The study comprised 321 participants, predominantly married, literate, from joint families, without a history of abortion, and with a sister in the family. Approximately 68% of participants were familiar with contraceptive methods, with hospitals serving as the primary source of information. Only 16% were aware of ECPs, with audio-visual media being the most common informational source. Literate women exhibited greater awareness of contraception, while awareness of ECPs was higher among illiterate women. Additionally, participants with sisters in their families displayed enhanced knowledge regarding contraception and ECPs. The awareness regarding ECPs is alarmingly low. Educational interventions hold promise in elevating awareness levels surrounding ECPs, potentially through both direct and indirect means.

OPEN ACCESS

Key Words

Contraception, cross-sectional study, emergency contraceptive pills, female

Corresponding Author

Nishi Mishra,
Department of Obstetrics and Gynaecology, Government Medical College, Satna, Madhya Pradesh, India
nishimishra92@gmail.com

Author Designation

[1]Assistant Professor
[2]Associate Professor
[3]Senior Resident

Received: 20 January 2024
Accepted: 19 February 2024
Published: 27 February 2024

Citation: Komal Chhabra, Sonu Kumar Batham and Nishi Mishra, 2024. Assessment of Awareness Regarding Emergency Contraceptive Pills among Female Patients Attending an Indian Tertiary Care Teaching Hospital. Res. J. Med. Sci., 18: 261-265, doi: 10.59218/makrjms.2024.4.261.265

Copy Right: MAK HILL Publications

INTRODUCTION

As per the 2011 census, India's population stood second globally after China, with 31.14% residing in urban areas. The Total Fertility Rate (TFR) for the country was recorded at 2.3 in 2011. The overall literacy rate was 73%, with male literacy at 80.9% and female literacy at 64.6%. Notably, female literacy was higher in urban areas (79.1%) compared to rural areas (57.9%), according to the 2011 India census. Among various family planning methods, pills accounted for 4.1%, with a total unmet need for pregnancy at 12.9% and an unmet need for spacing at 5.7% based on the Family Health Survey conducted in 2015-2016[1-2].

In 2015, approximately 15.6 million abortions (with a range of 14.1 million to 17.3 million) took place in India. These, 12.7 million (81%) were medication abortions, 2.2 million (14%) were surgical, and 0.8 million (5%) were performed through potentially unsafe methods. India witnesses a considerable proportion of pregnancies being undesired or unplanned, often leading to their termination through traditional or hazardous means, resulting in severe health ramifications[3,4].

Emergency contraception, emerging from recent trials and research over the past decade, serves as a vital intervention aimed at reducing the incidence of unintended pregnancies and abortions. However, in India, over 50% of eligible couples remain unaware of emergency contraception and do not utilize regular contraceptive methods, consequently facing a heightened risk of conception[1]. Given the escalating levels of adolescent sexual activity and decreasing age at first sexual encounter in developing nations, the utilization of emergency contraception holds particular significance. Despite the availability of various modern contraceptives worldwide, the issue of unintended pregnancy persists, attributed to gaps in awareness, negative perceptions toward contraception, limited accessibility, or as a consequence of sexual assault[5,6].

In light of the aforementioned considerations, this study was conducted to evaluate awareness regarding emergency contraception among female patients of reproductive age and to explore potential associations between marital status, family structure, family members, and awareness of emergency contraception utilization[7].

MATERIALS AND METHODS

A cross-sectional study was conducted among 321 women of reproductive age attending the gynecological outpatient department (OPD) and family planning OPD of a tertiary care Indian teaching hospital over a four-month period. The study included both patients and their female attendants.

Data collection was facilitated through an anonymous, pretested, structured questionnaire. Participants were briefed about the study, and in cases involving illiterate subjects, nursing staff provided assistance in completing the questionnaire. The questionnaire encompassed various demographic parameters such as age, address, religion, and education level, type of family, number of living children, and number of abortions. Additionally, information regarding available contraceptive methods and their sources was gathered. Participants' knowledge regarding emergency contraceptive pills, including their usage, side effects, and other relevant details, was also assessed.

Data analysis was performed using descriptive statistics, with associations between marital status, type of family, family members, education level, and knowledge of contraceptives, as well as emergency contraceptive pill utilization, evaluated using the Chi-square test. Statistical analyses were conducted using Microsoft Excel and the Epiinfo software, with a significance level of $p<0.05$ deemed significant.

RESULTS

A total of 321 female participants were enrolled in the investigation. The average age of the participants was 30.21 years, ranging from 15 to 61 years. Among the cohort, the majority were married and had attained education up to the secondary level. The predominant religious affiliation of the participants was Hinduism, and the primary language spoken was Hindi (Table 1).

Regarding obstetric and familial backgrounds, most women had not yet given birth, had no history of abortion, and had a single living child. A significant proportion of the participants resided in joint family setups and had siblings (Table 2).

Among the entire cohort, a notable proportion exhibited familiarity with various contraceptive methods (Table 3). Intrauterine contraceptive device (IUCD) emerged as the most prevalent method, followed by condoms and oral contraceptive (OC) pills. Approximately half of the participants had firsthand exposure to contraceptives, with IUCD being the most

Table 1: Socio-demographic variables in study population

Variables	n	Percentage
Education		
None	81	25.23
Primary School	95	29.60
Secondary School	128	39.88
Graduate	13	4.05
Postgraduate	4	1.25
Religion		
Hindu	252	78.50
Muslim	49	15.26
Others	20	6.23
Marital Status		
Unmarried	18	5.61
Married	303	94.39
Languages Known		
Hindi	287	89.41
Gujarati	33	10.28
Gujarati + Hindi	1	0.31

Table 2: Family and Obstetric variables in study population

Parameters	n	Percentage
Gravidity		
0	62	19.31
1	79	24.61
2	98	30.53
3	57	17.76
4	18	5.61
5	6	1.87
6	1	0.31
Parity		
nulliparous	311	96.88
primipara	6	1.87
second para	3	0.93
third para	1	0.31
Noumber of living children		
0	166	51.71
1	56	17.45
2	70	21.81
3	18	5.61
4	10	3.12
5	1	0.31
Number of abortions		
0	246	76.64
1	56	17.45
2	10	3.12
3	4	1.25
4	4	1.25
5	0	0.00
6	1	0.31
Type of family		
Joint family	242	75.39
Nuclear family	79	24.61
Having sister's		
Yes	222	69.16
No	99	30.84
Number of sisters		
1	66	20.56
2	72	22.43
3	42	13.08
4	27	8.41
5	5	1.56
6	10	3.12

Table 3: Awareness of Contraception in study population (n = 321)

Parameters	n	Percentage
Knowledge of contraception		
No	105	32.71
Yes	216	67.29
Condom	161	74.54
Injectable contraceptives	9	4.17
IUCDs	174	80.56
OC pills	147	68.06
Permanent tubal ligation	124	57.41
Ever seen contraceptive devices		
No	166	51.71
Yes	155	48.29
Condom	123	79.35
Injectable contraceptives	1	0.65
IUCDs	124	80.00
OC pills	99	63.87
Permanent tubal ligation	19	12.26
Sources of information		
Not known	114	35.51
Known	207	64.49
Chemist shop	29	14.01
Friends or family	44	21.26
Health care workers	9	4.35
Health-care center	14	6.76
Hospital	121	58.45
School	1	0.48
Studying	1	0.48
Television	20	9.66

encountered, followed by condoms and OC pills. The majority of female participants acquired information about contraception primarily from hospitals, followed by friends and family members.

Table 4: Awareness of Emergency Contraception in study population (n = 48)

Parameters	n	Percentage
When to take ECPs		
Immediately after unprotected intercourse	1	2.08
Within 12 hrs of unprotected intercourse	0	0.00
Within 24 hrs of unprotected intercourse	4	8.33
Within 36 hrs of unprotected intercourse	1	2.08
Within 72 hrs of unprotected intercourse	23	47.92
Don't know	19	39.58
Source of information		
Asha worker	3	6.25
Doctor	4	8.33
Family member	3	6.25
Newspaper	4	8.33
Television	34	70.83

Table 5: Association of various variables with Knowledge of Emergency Contraception

Parameters	Yes	No	p-value
Type of family			
Joint	35	207	0.91
Nuclear	13	66	
Marital status			
Married	46	257	0.89
Unmarried	3	15	
Education			
Yes	8	9	<0.05
No	41	263	
Having sisters			
Yes	42	180	<0.05
No	6	93	
Knowledge of contraception			
Yes	48	168	0.92
No	0	105	

Table 6: Association of various variables with Awareness about Contraception

Parameters	Yes	No	p-value
Type of family			
Joint	163	79	0.94
Nuclear	52	27	
Marital status			
Married	208	95	0.09
Unmarried	8	10	
Education			
Yes	13	4	<0.05
No	119	185	
Having sisters			
Yes	156	66	0.16
No	60	39	

Out of the 321 participants, 48 were aware of emergency contraceptive pills (ECP) (Table 4). Nearly half of these individuals were aware that ECP should be taken within 72 hours of unprotected intercourse, with the primary source of information being audio-visual media such as television. Awareness regarding contraceptive methods was more prevalent among those in joint family setups and married women with siblings (Table 5). However, these observations did not attain statistical significance. Conversely, awareness was significantly higher among literate women compared to illiterate counterparts.

Upon examining the association between awareness of contraceptive methods and knowledge about ECP (Table 6), it was observed that the majority of women aware of contraception were not familiar with ECP, with no statistically significant difference noted.

DISCUSSION

Emergency contraception plays a crucial role in reducing the incidence of unintended pregnancies and mitigating the associated consequences, such as induced abortions and the complications arising from unsafe abortion procedures[3]. It is imperative for women to possess accurate knowledge regarding emergency contraception, including its appropriate usage, availability, and correct dosage. Thus, this investigation aimed to assess the level of awareness regarding emergency contraception among female patients at a tertiary care teaching hospital.

The mean age of the women included in this study was determined to be 30.21 years, a finding consistent with a study conducted in Ethiopia[8]. Similarly, other studies conducted in India reported comparable results, although they encompassed women aged 18 years and above in studies conducted in Karnataka, Uttar Pradesh, and other locations. Conversely, investigations conducted in Delhi and Hyderabad included women aged 15 years and above[9-12]. In a study conducted in Hyderabad, it was revealed that 70% of the women were married, aligning with the findings of our study. Conversely, the majority of women were unmarried (64.4%) in the Ethiopian study[13]. Our study indicated that the majority of women (39.9%) had received education up to the secondary school level, which corresponds to findings from studies conducted in Uttar Pradesh, Hyderabad, and Ethiopia[9,12,13]. In contrast, other studies reported that the majority of women had received education up to the graduate level or higher[2,8]. Conversely, in certain studies, the majority of women were found to be illiterate, with among the literate majority having received education only up to the primary school level[3,11]. Studies conducted in Raipur and Hyderabad revealed that the majority of women identified with the Hindu religion, consistent with our findings, while studies conducted in Ethiopia indicated that the majority of women belonged to the Christian religion[2,8,10,13].

In our study, it was observed that the majority of women had a history of three pregnancies, which aligns with findings from studies conducted in Karnataka and Ethiopia[8,11]. Conversely, a study conducted in Delhi revealed that the majority of patients were multiparous (57.2%), contrasting with our findings where the majority were nulliparous[10]. Another study in Raipur indicated that the majority of women (66%) had no history of abortion, while a study in Uttar Pradesh showed that the majority (18.6%) had a history of a single abortion, similar to our findings where 76.7% had no history of abortion and 17.4% had a history of a single abortion. Additionally, the majority of women (51.8%) had no children, and among those who did, the majority (21.7%) had two children in our study, similar to findings from Raipur where the majority (70.3%) had two children, while a study in Uttar Pradesh showed that the majority had no children and 30% had single children, contrasting with our findings[2,12].

The majority of patients belonged to joint families (75.5%), whereas a study in Karnataka found that the majority (67.1%) belonged to nuclear families[11]. In Raipur, it was found that the majority of women were knowledgeable about female sterilization, followed by oral contraceptive pills and condoms, whereas in Uttar Pradesh, the majority were knowledgeable about condoms, followed by intrauterine contraceptive devices (IUCDs) and oral contraceptive pills. In our study, the most common contraceptive known was IUCD, followed by condoms and oral contraceptive pills, which slightly differed from data published by the National Health Family Survey for Gujarat state. Regarding the actual practice of contraceptives, the majority had not used any contraceptives, and among those who had, the most common contraceptive used was IUCD (80.3%), followed by condoms (79.5%), contrasting with findings from Raipur, Uttar Pradesh, and Karnataka where the most common contraceptive practice was condoms and tubectomy[2,11,12].

A study in Delhi revealed that the most common source of information about contraceptives was television (54%), followed by friends and family members (42%), compared to our findings where hospitals were the most common source (58.3%), followed by friends and family members (21.5%). Approximately 15% of women had heard about emergency contraception in our study, similar to a study in Karnataka where 13.4% had heard about it, but contrasting with a study in Raipur where 56% had heard about it. Studies in Hyderabad, Delhi, and Ethiopia reported 21.6%, 7.27%, and 28.7% had heard about emergency contraception, respectively[8-10]. Additionally, studies in Raipur, Puducherry, and Ethiopia revealed that 74.4%, 29.4%, 36%, and 18.5% of participants correctly knew when to take emergency contraception after unprotected sex, contrasting with our study where 47.4% knew when to take emergency contraception. Our findings suggest that the main source of information about emergency contraception is television (71%), followed by friends and family members (7.9%), newspapers (7.9%), and doctors (7.9%), similar to findings from Raipur where the main source was media (88.1%) and friends and family members (5.4%). Another study in Puducherry suggested that the main source was mass media (59.4%), followed by health workers (25.4%)[2,3].

CONCLUSION

The study findings indicate a significant deficiency in awareness regarding ECPs among the study

population, highlighting a notable gap between awareness and actual practice. Education emerges as a pivotal factor capable of bridging this gap, directly or indirectly fostering awareness about ECPs. Consequently, we advocate for policy initiatives aimed at promoting ECP utilization to prioritize the dissemination of accurate information. This can be achieved through formal educational channels and communication facilitated by medical personnel, as well as leveraging audio-visual media platforms. Such efforts are essential in providing reliable and precise knowledge on ECPs, ultimately serving to mitigate the incidence of unplanned pregnancies.

REFERENCES

1. GI., 2019. National Health Profile of India-2019. Government of India. https://www.cbhidghs.nic.in
2. Singh, V., P. Thakur, P. Nayak and S. Agrawal, 2014. Knowledge attitude and practice (KAP) of emergency contraceptive pills among women of reproductive age group attending AIIMS OPD raipur (c.g.). Int. J. Adv. Med., 1: 105-112.
3. Raikar, V., P. Potdar and A. Potdar, 2015. Knowledge, attitude and practice regarding emergency contraceptives among married women of urban slum area. Int. J. Reprod., Contraception, Obstet. Gynecol., 4: 1008-1011.
4. Singh, S., C. Shekhar, R. Acharya, A.M. Moore and M. Stillman *et al*., 2018. The incidence of abortion and unintended pregnancy in India, 2015. Lancet Global Health, 6.
5. Gajera, A.N., M.J. Barvaliya, A. Shukla and C.B. Tripathi, 2017. Knowledge and attitude towards emergency contraception among undergraduate medical students. Int. J. Basic Clin. Pharmacol., 6: 955-961.
6. Ahmed, F.A., K.M. Moussa, K.O. Petterson and B.O. Asamoah, 2012. Assessing knowledge, attitude, and practice of emergency contraception: A cross- sectional study among Ethiopian undergraduate female students. BMC Public Health, Vol. 12, No. 110 .10.1186/1471-2458-12-110.
7. Karelia, B.N., R.R. Patel and B.N. Vegada, 2023. Awareness of emergency contraceptive pills among female patients of family planning unit of tertiary care teaching hospital, Rajkot, Gujarat, India. Natl. J. Physiol. Pharm. Pharmacol., 13: 985-990.
8. Seifu, M., F. Gashe, A. Jemal, S. Tessema and W. Amelo, 2016. Assessment of the knowledge, attitude and practice of emergency contraception and barriers to its use among the antenatal care seekers of sululta health centers, Oromia region, Ethiopia. Int. J. Sci. Rep., 2: 29-35.
9. Putchakayala, J., M. Rao, P. Edwards and M. Mohan, 2018. A cross sectional study on knowledge, attitude, practice regarding emergency contraception. Int. J. Reprod. Contracept. Obstet. Gynecol., 7: 2869-2873.
10. Kathpalia, S.K., 2016. Emergency contraception: Knowledge and practice among women and the spouses seeking termination of pregnancy. Med. J. Armed Forces India, 72: 116-119.
11. Ade, A.D. and R. Patil, 2014. Contraceptive practices and awareness of emergency contraception among Muslim women of urban slum of Raichur, Karnataka. Int. J. Reprod., Contraception, Obstet. Gynecol., 3: 70-74.
12. Prakash, A., A. Nigam and N. Maheshwari, 2010. Knowledge of emergency contraception and contraceptive practices: Representative study from rural Uttar Pradesh. Indian J. Community Med., 35: 449-450.
13. Abate, M., N. Assefa and T. Alemayehu, 2014. Knowledge, attitude, practice, and determinants emergency contraceptive use among women seeking abortion services in Dire Dawa, Ethiopia. PLoS ONE, Vol. 9. 10.1371/journal.pone.0110008
14. RCHIIPS., 2020. National Family Health Survey-5 India 2019-2020. https//www.rchiips.org/nfhs/factsheet_NFHS-5.shtml
15. Kashyap, P. and S. Prasad, 2018. Assessing the knowledge, attitude and practice of contraception in semi urban area in India: A qualitative assessment of contraceptive usage. Int. J. Med. Res. Health Sci., 7: 150-154.