

Emergency contraception: How close, How far? A study about knowledge attitude and practices among females attending immunization OPD at tertiary care hospital in Mumbai

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Abstract

Introduction: Emergency contraception refers to contraceptive method that can be used by woman in the first few days following unprotected intercourse to prevent an unwanted pregnancy. It is the only contraceptive method that can be used after intercourse. Emergency contraceptive methods are effective and safe for the majority of woman who may need them as well as being simple to use.

Materials and Methods: The study was carried out in hundred women attending immunization O.P.D. within reproductive age group. All of them agreed to participate. They were interviewed personally through a pretested questionnaire. Pregnant Women and who have got operated for tubectomies were excluded from the study. All other women who are leading reproductively active life using or not using any kind of contraception were included in the study.

Result: Out of the 28% who know about the emergency contraception all know one of the brand of E.C. PILLS being marketed and only 7 (25%) of them were knowing how to use it. Only one (1%) woman has ever used E.C. pills. None of the women was aware about cu T being used as emergency contraception.

Discussion: As it is estimated that, in India, every year, an additional 5-6 million abortions are conducted by private practitioners. Majority of these cases are done in rural areas having inadequate facilities and hence done in an unhygienic and unscientific way. Despite the fact that MTP has been legally approved in India for more than three decades, its services are not easily accessible to majority of the women, particularly in the rural areas. Information and education about emergency contraception may reduce this load of maternal mortality and morbidity.

Keywords: Emergency contraception, Hurdles and challenges

Introduction

Unintended pregnancy poses a major challenge to the reproductive health of young adults in developing countries.⁽¹⁾ With decreasing age of menarche and onset of sexual activity, young people are exposed early to unplanned and unprotected sexual intercourse leading to unwanted pregnancy and invariably abortions. Similarly, the rate of induced abortions is a good indicator of the current state of medical care and family planning in any country.⁽²⁾ Emergency contraception is the contraception administered to a woman after unprotected intercourse. In the past it has also been known as post coital contraception or morning after pills.⁽³⁾ Emergency contraception is needed when intercourse is unexpected and without prior contraceptive coverage. Other indications include failure of barrier methods like the slipping or breakage of condoms, and after rape. This emergency contraception may be an effective way to reduce the number of unwanted pregnancies and induced abortions.⁽⁴⁾

Emergency contraception is essentially female driven, so its use and success rests mainly on how women perceive and practice it. Levonorgestrel - only pills and combined oral contraceptives are the most common emergency contraceptive methods available: they can be obtained over the counter from patent medical and pharmaceutical shops.

In the developing world as a whole, an estimated five million women are admitted for treatment of complications from induced abortions each year, equating to an average rate of 5.7 per 1000 women per year in all developing regions.⁽⁵⁾ With decreasing age of menarche and coitarche, recent findings suggest that young people engage early in unplanned and unprotected sexual intercourse, which in most cases will lead to unwanted pregnancy.⁽⁶⁾

According to the WHO, approximately 100 million people make love daily, resulting in one million conceptions, and 150,000 abortions. According to WHO, about one-third of the 150,000 abortions worldwide are unsafe; and a woman dies every seven minutes as a consequence. Annually, as many as 600,000 women die through lack of contraception.⁽⁷⁾

Emergency contraception is the use of a drug or device to prevent pregnancy after an unprotected sexual intercourse.⁽⁸⁾ It is primarily a female method, so its use and success rests mainly on how women perceive and practice it. A variety of methods exists for emergency contraception but levonorgestrel-only pills (Postinor-2) and combined oral contraceptives appear to be the most common methods practiced in India since, they can be obtained over the counter from patent medicine and pharmacy shops. Unconventional techniques (some common drugs used for other health problems as well as

some traditional or herbal preparations) of emergency hcontraception are also practiced.

Statement of the research problem

In spite of the high rate of unwanted pregnancies, the uptake of emergency contraception to prevent such an occurrence in India is disproportionately low. The factors that influence utilisation patterns are as yet poorly understood. This poses a range of major public health problems – including an increased risk of complications associated with illegal abortions in the country. This area of research has not been given much attention within the Indian context and, to date, only a few non-research-based reports exist, with much of the discourse being conducted within mass media outlets. This background dictates a need for primary research to offer empirical insights into the reasons for low uptake of emergency contraception as a first step toward the reduction of pregnancy. In keeping with this imperative, the current study looks specifically at the role by played by attitudes, knowledge and practice in determining the usage of emergency contraceptives.

Objectives

In attempting to achieve the aim of the study, a number of key objectives were identified and include: (1) To assess the pre-existing knowledge with regard to emergency contraception; (2) To assess the utilization level of contraceptives amongst females of reproductive age group; and (3) To assess the perception regarding use of emergency contraception.

Subjects and Methods

Between July 2010 to December, 2010 this cross-sectional observational study was conducted among 100 females attending immunization OPD at Seth GS Medicial College and KEM Hospital Mumbai using systematic random sampling technique by selecting every third female attending the OPD. The questionnaires were pretested among females who were not included in the main study. The questionnaire assessed information on the socio-demographic characteristics of the respondents, knowledge and use of emergency contraceptives. Sources of information were also assessed as well their potential risk for unintended pregnancy. Knowledge of correct indications for emergency contraception and their correct timing were also assessed. Informed consent was obtained from all respondents before being interviewed, and ethical approval was also obtained from the authorities. All other women who are leading reproductively active life using or not using any kind of contraception were included in the study.

Results

Demographic data

Table 1: Profile of study participants

Table 1a: Age Distribution		Percent of study population
1	15-19yrs	1%
2	21-25 yrs	40%
3	26-30	30%
4	30-35	29%
Table 1b: Place of residence		
1	Urban	67%
2	Rural	33%
Table 1c: Socio-economic status		
1	Less than 5000 per month	43%
2	5000-10,000/month	39%
3	>10,000/month	10%
Table 1d: Religion		
1	Hindu	75%
2	Muslim	20%
3	Christian	3%
4	Others	2%
Table 1e: Level of education		
1	Illiterate	13%
2	Primary	10%
3	Secondary	42%
4	HSC	19%
5	College	16%

All respondents were aged between 15 to 35 years. Of this group, 40% (n = 40) participants were between 21 and 25 years old; 30% (n = 30) were between 26 and 30 years old; 29% (n = 29) were between 31 to 35years old. For the religious breakdown of the respondents, 75% (n = 75) were Hindu; 20% (n = 20) were Muslim; 3% (n = 3) were Christians; 2% (n = 2) had other affiliations. The educational level of the respondents ranged from illiterate to graduation.13% (n=13) respondent were illiterate, 10% (n=10) were educated up to primary classes and 42% respondents are educated up to secondary classes (n = 4). Only 19% (n = 19) respondents have completed graduation, as indicated in Table 1. 67% respondents belong to urban residence and 33% respondents have a rural residence.

Table 2: Use of Contraceptive Services

Table 2a: Use of contraception		Percent of study population	
1	Regular	26%	
2	Irregular	59%	
3	None	15%	
Table 2b: Contraceptive methods		Method known	Ever Used
1	Condom	84%	63%
2	Cu-T	72%	29%

3	O.C. Pills	52%	14%
4	DMPA inj.	15%	3%
5	Female condom	2%	0%
6	Never known/used	11%	15%
Table 2c: Previous MTP done		Percent of study population	
1	Once	6%	
2	More than once	2%	
Table 3c: Reasons for not using any family planning method		Percent of study population	
1	Lack of information	2%	
2	Not accessible	3%	
3	Opposition from Family/husband	2%	
4	Husband stays away	4%	
5	Fears about side effect	4%	
Table 4d: Parity status of participants			
	Parity	Present status	Desired status
1	1	49%	7%
2	2	38%	68%
3	3	12%	23%
4	4+	1%	2%

Knowledge and use of contraceptives

26% respondents use contraceptives regularly. 59% have used contraceptives but not on regular basis. 15% respondents have never used contraceptives. Most commonly known means of contraception was condom. 84% respondents knew about condom. It was followed by Cu-T. 72% respondents knew about them. 52% were aware about Oral pills to be used as contraceptive. This was followed by DMPA injections. 15% respondents are aware about it. Only 2% respondents were aware of female condom and 11% respondents were not aware of any contraceptive means.

Of the 100 respondents most commonly used contraceptive was condom. 63% respondents have ever used condom. 29% respondents have used Cu T. 14% respondents have used OC Pills. 3% have used DMPA injections. Nobody has ever used female Condom. 15% respondents have never used any contraceptive method. 6% respondents have undergone medical termination of pregnancy once 2% respondents have gone for MTP for more than once.

Reasons for not using contraceptive methods: 2% respondents had no information regarding contraceptives. For 3% respondents it was not accessible. 2% respondents were apprehensive about opposition from husband and family. 4% respondents didn't think that using any contraceptive is needed as their husbands stay away for job purpose. 4% respondents are worried about the side effects of contraceptives.

Table 3: Knowledge and Perception about Emergency Contraception

Table 3a: Awareness about emergency contraception		Percent of study population
1	Aware	28%
2	Not aware	72%
Table 3b: Willingness to use Emergency contraception		Percent of study population
1	Favourable attitude	82%
2	Not favourable attitude	14%
3	No Comment	4%
Table 3c: Doubts about Emergency contraception		Percent of study population
1	Fear about side effects	62%
2	Abortifacient	84%
3	Failure	6%
4	Has to be taken after missed period	65%
5	Can increase the sexual promiscuity in society	22%
6	Can't breast feed	14%

Of the 100 respondents, 28% (n = 28) had heard about emergency contraception. The females who know about emergency contraception know it through mass media and none through the health professional or through health charts. Out of the 28% who know about the emergency contraception only know about only one brand of Emergency Contraceptive pills being marketed. None of them are aware about IUCD to be used as emergency contraceptive method. Concerning the time limit for taking pills as emergency contraception, only 25% (n=7) respondents indicated correctly that emergency contraceptive pills should be taken within 72 hours. Only 1% (n=1) respondent had ever used emergency contraceptive pills.

To assess the level of actual knowledge, a series of eight knowledge questions (on method identification; drug composition; time frame for effective use; time interval between doses; effectiveness of the drug; appropriate situations for use; and places where emergency contraception can be found) were posed to those students who had heard of emergency contraception.

Attitude toward emergency contraceptives

Respondents were again questioned about their attitudes toward emergency contraception. The five items were answered as either 'agree strongly', 'agree slightly', 'neutral', 'disagree slightly' or 'disagree strongly'. For positively-worded statements, those who selected 'agree' were regarded as having a positive attitude and those who chose 'disagree' were considered to have a negative attitude. Conversely, for negatively-worded statements, those who selected 'disagree' were clustered as having a positive outlook whereas those who said 'agree' were categorised as having a negative

attitude. The responses on each attitudinal item were scored and tallied, then the total of each respondent's score was ranged between 0 and 5 (0% – 100%). A score of 50% and above was considered as being a 'favourable attitude', whereas those scoring below 50% were thought of as having an 'unfavourable attitude'.

82% respondents were found to have favourable attitude towards Emergency contraceptive pills. 14% had unfavorable attitude towards emergency contraceptives and 4% respondents didn't comment anything.

Beliefs about Emergency contraception

62% of respondents were scared of the side effects of it. 84% felt that it was an abortifacient 6% were scared about its failure. 65% were having understanding that it has to be taken after missed period. 22% respondents believed that use of Emergency contraceptive pills will increase the promiscuous behavior in society and 14% respondents believed that lactating mothers could not use it.

Limitations of the study

There were a number of limitations with regard to this study. Firstly, the sample size is small and results cannot be generalized. Since the study touches on sensitive issues, the possibility of underestimation cannot be excluded, even though the study was anonymous. Many felt shy with respect to some issues, especially those related to sex. Lastly, the current study offers a quantitative exploration and future researchers could offer clarifying insights through the use of qualitative methodologies

Discussion

Similar procedures were followed by Ayana⁽⁹⁾ and Desta and Regassa.⁽¹⁰⁾ Based on the result only 28% of the respondents were aware of emergency contraception., about 66.1% fell into the range of 'fair knowledge' and only 33.9% had good knowledge of emergency contraception. The level of knowledge here is very low as compared to that conducted in Bahirdar University (34.8%)⁽¹¹⁾ study conducted in Jimma University (22.8%),⁽¹²⁾ and a study conducted in Addis Ababa University (43.5%).⁽¹³⁾

This study has identified media including TV, Radio and newspaper as the commonest source of information on emergency contraception. These women do not have any formal means of learning about such reproductive health matters. Therefore, they rely mainly on information they get from media. A sizeable proportion of those who reported knowledge of emergency contraception did not know the correct methods. This poor knowledge of correct methods has also been demonstrated in other studies.^(14,15,16) This has far reaching implications as women who genuinely desire to use emergency contraceptives may end up using it in wrong way and subsequently face the risk of unintended pregnancy and unsafe abortion. This may be a pointer to

the fact that formal lessons are needed to improve knowledge of this matter among women. Apart from the poor basic knowledge of emergency contraception, knowledge of correct methods and timing of the agents was also poor. This may be a reflection of inadequate information.

None of the respondent knew that intra uterine contraceptive device can be used as emergency contraceptive. The practice of emergency contraception was also low as only 1% ($n = 1$) had ever used emergency contraceptive pills. There are lot of misconceptions regarding use of emergency contraception. Many believe it to be an abortifacient, many believe that it has to be taken after missed periods. It should not be taken during breast feeding.

82% respondents seem to have favorable attitude towards use of emergency contraception. This is very promising finding. If proper knowledge about emergency contraception is disseminated there is a chunk of females who are willing to use it. 62% respondents feared about its side effects. So while preparing the health education messages regarding emergency contraception these beliefs could be addressed in it.

Conclusion

There is a poor basic knowledge of emergency contraception among these females. We recommend the introduction of formal lessons on emergency contraception and other reproductive health issues will enhance knowledge and practice. Future research should focus on identifying effective methods of disseminating information to improve knowledge among women. This study shows that the awareness of emergency contraception amongst females of reproductive age group of India of the is low; and even amongst those that are aware, majority do not practice it because of dearth of correct information. This is worrisome considering the social activities in this zone of the country, and the fact that most of these females belong to the age group at risk of unplanned/unintended pregnancy and the age group who mostly use the barrier method of contraception such as condom with its problem-bursting, slippage.^(17,18)

To change this, there is a need to educate this group on emergency contraception with emphasis on available methods and correct timing of use. The education process has to be a collective effort of the schools, health facilities, media parents, government and non-government organizations.⁽¹⁹⁾

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Competing interests

The authors declare that they have no financial or personal relationship(s) which may have inappropriately influenced them in writing this article.

References

1. Okonofua FE. Factors associated with Youth and Adolescent Pregnancy in Rural Nigeria. *Journal and Adolescent*. 1995;24(4):419–438. [PubMed]
2. Bartfan GY. Emergency contraception in clinical practice: Global Perspective. *International Journal of Gynaecology and Obstetrics*. 2000;70:49–58. [PubMed]
3. Silvestre L, Bouali Y, Ulmann A. Postcoital Contraception: myth or reality? *Lancet*. 1991;338:39–41. [PubMed]
4. Arowojolu AO, Adekunle AO. Perception and Practice of Emergency contraception by Post-secondary students in South-West Nigeria. *African Journal of Reproductive Health*. 2000;4(1):56–65. [PubMed]
5. Singh S. Hospital admissions resulting from unsafe abortion: Estimates from 13 developing countries. *Lancet*. 2006;368:1887–92. [PubMed]
6. Akani C, Enyindah C, Babatunde S. Emergency contraception: Knowledge and perception of female undergraduates in the Niger delta of Nigeria. *Ghana Med J*. 2008;42:68–70. [PMC free article][PubMed]
7. Trussell, James; Schwarz, Eleanor Bimla (2011). "Emergency contraception". In Hatcher, Robert A.; Trussell, James; Nelson, Anita L.; Cates, Willard Jr.; Kowal, Deborah; Policar, Michael S. *Contraceptive technology* (20th revised ed.). New York: Ardent Media. pp. 113–145. ISBN 978-1-59708-004-0. ISSN 0091-9721.OCLC 781956734. p. 121;
8. Glasier A. Emergency post coital contraception. *N Engl J Med*. 1997;337:1058–64. [PubMed]
9. Ayana WB. Emergency contraceptive: Post-secondary school female students' and service providers' perspective (the case of Awassa Town). Master's thesis Addis Ababa: Addis Ababa University School of Graduate Studies; 2008.
10. Desta B., Regassa N. On emergency contraception among female students of Haramaya University, Ethiopia: surveying the level of knowledge and attitude. Master's thesis Addis Ababa: Institute of Population Studies, Addis Ababa University; 2011.
11. Atsedo D. Emergency contraceptive: knowledge, attitudes, and practices (KAP) among Bahir Dar University female students [unpublished thesis]. Addis Ababa; 2007.
12. Nasir T. Knowledge, attitude and practice of emergency contraception among graduating female students of Jimma University, Southwest Ethiopia. *Ethiop J Health Sci*. 2010;20(2):91–97. [PMC free article] [PubMed]
13. Tamire W., Enqueselassie F. Knowledge, attitude, and practice on emergency contraceptives among female university students in Addis Ababa, Ethiopia. *Ethiop J Health Dev*. 2007;21(2):111–116. <http://dx.doi.org/10.4314/ejhd.v21i2.10037>
14. Aziken ME, Okonta PI, Ande AB. Knowledge and perception of emergency contraception among female Nigerian undergraduates. *Int Fam Plan Perspect*. 2003;29:84–7. [PubMed]
15. Akani C, Enyindah C, Babatunde S. Emergency contraception: Knowledge and perception of female undergraduates in the Niger delta of Nigeria. *Ghana Med J*. 2008;42:68–70. [PMC free article][PubMed]
16. Abasiattai AM, Umoiyoho AJ, Bassey EA, Etuk SJ, Udoma EJ. Misconception of emergency contraception among tertiary school students in Akwa Ibom State, South-south, Nigeria. *Niger J Clin Pract*. 2007;10:30–4. [PubMed]
17. Brabin L, Kemp J, Obunge OK, Ikimalo J, Dollimore N, Odu NN, Hart AC, Briggs ND. Reproductive tract Infections and Abortion among Adolescent girls in Rural Nigeria. *Lancet*. 1995;345:300–304. [PubMed]
18. UK Family Planning Research Network, author. Mishap occurring during condom use and the subsequent use of Post coital contraception. *Br J Family Planning*. 1993;19:218–220.
19. H, McCarthy M. UK Improves Access to “Morning after Pill” *Lancet*. 2000;20(17):356. [PubMed]