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Original Research Article

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Emergency contraception amongst medical college students: knowledge, attitude, practice

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ABSTRACT

Background: Emergency contraception has the potential to greatly reduce the number of unintended pregnancies. The level of knowledge among the medical student population about EC has not been adequately investigated. This study aims to assess the knowledge, attitude and practice of EC (Emergency Contraception) amongst the medical under graduate students in Government college of Surat.

Methods: This study was carried out among 339 medical under graduate students during the month of October, 2016. A predesigned self-administered questionnaire was used to collect the data.

Results: Majority of students knew about some form of contraception. Only quarter of students knew about EC pill. Varied responses were observed regarding various knowledge aspects of EC. Internet and books were the most common source of knowledge. As far as their attitudes are concerned, almost 40% believed that EC would lead more irresponsible behaviour and more STD/HIV cases, while 30% believed that it would lead to promiscuity, and be inexpensive, if they are readily available. More than half number of students opined that EC should be made available for women aged only 18 years and above. As far as practice is concerned, only one student reported using EC. However, more than 40% were willing to use it, if required and would also encourage friends and relatives to use it.

Conclusions: Awareness of EC was low among students. Attitude was favorable towards EC. Study also document very low level of practice of EC among the students.

Keywords: Knowledge, Attitude, Practice, Emergency contraception

INTRODUCTION

Emergency contraceptive pills (ECPs)—sometimes simply referred to as emergency contraceptives (ECs) or the "morning-after pill"—are medications intended to disrupt or delay ovulation or fertilization, which are necessary for pregnancy. 1,2 Emergency contraceptive pills (ECPs) may contain higher doses of the same hormones (estrogens, progestins, or both) found regular combined oral contraceptive pills. Taken after unprotected sexual intercourse or contraceptive failure, such higher doses may prevent pregnancy from occurring.³ Related literary sources suggest that, for most of the youth, tertiary education represents a shift toward greater independence from home - an opportunity to form new friendships and, for some, an opportunity to experience romantic and/or sexual relationships. Higher education students' unwanted pregnancies pose a major public health problem globally. Teenage sexual activity is increasing globally with a trend towards early onset. As many as 20-50% of adolescents have initiated sexual activity with age at first sexual intercourse ranging from fourteen to eighteen years.⁵ Unintended pregnancy therefore poses a major challenge to the reproductive health of these young adults. EC is appropriate for adolescents who engage in sporadic and occasional sexual intercourse, and especially among those who find regular contraceptives intolerable or who use them sparingly.⁶ Despite the fact that different modern contraceptives exist worldwide, the problem of unintended pregnancy still exists, which could be due to gap in awareness, negative attitudes towards contraception, low accessibility or as a result of sexual assault.⁷

Emergency contraception has the potential to greatly reduce the number of unintended pregnancies. Many women do not know of emergency contraception. Even if they are aware, accurate and detailed knowledge is lacking. Therefore availability must be accompanied by education and motivation.⁸

In India, studies on EC have been done among adult married women. However, the level of knowledge among the medical student population about EC has not been adequately investigated. The medical students/interns are the doctors in making, who hold the promise of providing health-care services to the community in near future.

Aims and objectives

The study aims to assess knowledge, attitude & practice of Emergency Contraception among medical students in Government college of Surat, Gujarat.

METHODS

It was a cross sectional study which was carried out in the month of October 2016. Medical students of the Government college of Surat were selected as study participants. All selected participants were in the age groups of 17 to 21 years. Necessary prior permissions were taken from the appropriate authorities before commencing the study. Participants were approached for the study after their classes. A predesigned, pre-tested. self-administered semi structured multiple response questionnaire was provided to the students, who were willing to participate in the study. Data was collected on demographic information, knowledge and attitude regarding emergency contraceptives and practice of Emergency Contraception. Confidentiality of information provided was assured and maintained. A total of 339 students participated in the study. Data was entered in MS office Excel 2007, and was analyzed using Epi Info 7 and relevant frequencies, proportions and percentages were calculated.

Inclusion criteria

All medical students of Government Medical College, Surat, willing to participate were included in our study.

Exclusion criteria

Medical students who were not willing to participate in the study and those who were absent on the day of data collection were excluded from our study.

RESULTS

Out of the total participants enrolled, more than half of them were girls. Majority (64%) of them belonged to age group of 17 to 18 years. More than half of them stayed in hostel. Parents (both mother and father) of more than half of study participants were either graduate or post graduate. Majority of them belonged to nuclear families.

Table 1: Socio-demographic profile of study participants (N=339).

Variable		Frequency	%
Gender	Boy	150	44.3
	Girl	189	55.7
Age group (years)	17-18	217	64.0
	19-20	111	32.7
	20-21	11	3.3
Place of stay	Hostel	179	52.8
	Home	160	47.2
Family type	Nuclear	233	68.7
	Joint	106	31.3
	Illiterate	3	0.9
	Primary	29	8.5
Father's education	Secondary	62	18.2
	Graduate	165	48.9
	Post graduate	80	23.5
Mother's education	Illiterate	10	2.9
	Primary	43	12.7
	Secondary	96	28.3
	Graduate	150	44.2
	Post graduate	40	11.9

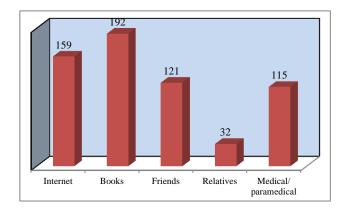


Figure 1: Source of knowledge of contraception.

Study participants were asked about their source of knowledge of contraception and multiple responses were taken. It was observed that books followed by internet were the most common source of knowledge regarding contraception. Medical/paramedical personnel were the source of information of contraception in about 34% of the participants.

Table 2: Gender wise distribution of participants about knowledge of emergency contraception.

Gender						P value	
Is EC Pill availa	ble only after prescript	ion?					
	Yes	N	Vo	Do not	know		
Girl	32	7	1	86	> 0.06		
Boy	30	53 67		67		>0.05	
What is the drug	g composition of ECP a	s compared to r	egular pills?				
	Same	Higher dose	Completely di	fferent I	Oo not know		
Girl	1	92	6	9	0	>0.05	
Boy	4	71	3	7	2	>0.03	
When should EO	C pill be taken?						
	Any time	Within 24 hrs	Within 48 hrs	Within 72 hr	s Do not know		
Girl	2	49	28	42	68	>0.05	
Boy	2	26	27	31	64	>0.03	
How many times	s can the EC pills be us	ed in a year?					
	Once	Twice	Thrice	No limit I	Oo not know		
Girl	3	5	3	10 1	68	>0.05	
Boy	4	8	7	15 1	16		
Can the EC pills be used if a woman is already taking the regular pills?							
	Yes	N	lo	Do not kr	iow		
Girl	38	6	5	86		>0.05	
Boy	28	5	3	69			
Does the EC pill also protect against some sexually transmitted diseases?							
	Yes	N	lo	Do not kr	now		
Girl	41	8	2	66		. 0.05	
Boy	25	7	2	53		>0.05	
Can it terminate pregnancy if woman already pregnant?							
	Yes	N	lo	Do not kr	iow		
Girl	57	5	6	76		>0.05	
Boy	38	5	4	58		>0.05	
	Effectiveness of EC pill in preventing pregnancy						
	Highly effective (99%)) 75%	50%	< 50%	Do not know		
Girl	40	48	18	9	74	>0.05	
Boy	35	32	14	8	61		

Table 3: Gender wise distribution of attitude of students regarding EC, if they are easily available.

Gender				P value
It will pron	note irresponsible beha	viour		
	Yes	No	No opinion	
Girl	75	36	78	>0.05
Boy	56	40	54	>0.03
Will lead m	ore number of STD an	nd HIV cases due to seldom usag	ge of condom	
	Yes	No	No opinion	
Girl	71	53	65	>0.05
Boy	65	39	46	>0.03
Will it incr	ease PROMISCUITY?			
	Yes	No	No opinion	
Girl	50	23	116	>0.05
Boy	43	15	92	>0.03
Will it be ea	asily accessible?			
	Yes	No	No opinion	
Girl	78	17	94	> 0.05
Boy	63	13	74	>0.05

Gender				P value		
Will it be i	Will it be inexpensive?					
	Yes	No	No opinion			
Girl	67	41	81	>0.05		
Boy	55	38	68	>0.03		
Should it b	Should it be available to women over 18 yrs only?					
	Yes	No	No opinion			
Girl	107	32	50	>0.05		
Boy	70	24	56	>0.03		
Should it b	Should it be available to victims of rape only?					
	Yes	No	No opinion			
Girl	13	111	65	>0.05		
Boy	18	74	58	×0.03		

Various knowledge questions were asked to study participants regarding EC. Only quarter of students knew about EC pill. It was observed that many students were unaware about many aspects of knowledge regarding contraception. Gender wise comparison was also made between boys and girls regarding various aspects of knowledge related to Emergency Contraception. It was noted that there was no significant difference between boys and girls about knowledge of various aspects of Emergency contraception.

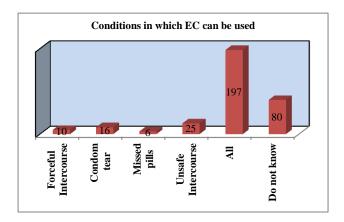


Figure 2: Student's perception regarding conditions in which EC pill can be used.

Various questions related to attitude of students regarding different aspects of Emergency contraception were asked. Many students did not put forward opinion on them as can be noted from the table above. Almost 40% believed that EC would lead more irresponsible behaviour and more STD/HIV cases, while 30% believed that it would lead to promiscuity, and be inexpensive, if they are readily available. More than half number of students opined that EC should be made available for women aged only 18 years and above. Majority of the students did not agree with the question that EC pills should be available to vistims of rape only. Also, no significant difference was observed among boys and girls regarding their attitude towards Emergency Contraception.

The study participants were also asked regarding their perception about the conditions in which Emergency contraception can be used. Majority of the students were of the opinion that emergency contraception can be used in all the given conditions like Forceful intercourse, condom tear, missed pills and unsafe intercourse. 80 participants responded negatively to this question, while 5 participants did not respond to this question.

Practices of emergency contraception among study participants

Only 1 student reported to have used emergency contraception. He purchased it from medical store. There were 26 participants, who refused to answer this question, while rest of them reported not to have used EC. Among students who did not use EC, 40% reported their willingness to use EC, if needed. Also, 40% of them reported that, they would encourage their friends and relatives to use emergency contraception.

DISCUSSION

Emergency contraception pill (ECP) is an effective reproductive health intervention, which could protect millions of women from unwanted pregnancy. In India, ECP was introduced in 2002 by the Ministry of Health and Family Welfare (MoHFW) and was made an over the counter (OTC) drug in 2005. Less than one-third women are aware of ECP and less than one percent has ever used it. When ECP was introduced, no sustained efforts were made to educate about ECP at any level of providers doctors, ANMs, and ASHA. Some senior officials of the MoHFW believed that there is no need to train healthcare providers in ECP, as the leaflet provided with the pill is self-explanatory.9 As per NFHS-4 report, knowledge of Emergency contraception was present in 38.5% of women and 44% of men, who were interviewed. The report also says that percentage of women who have ever used emergency contraceptive pills was just 0.4% and percentage of women who have used emergency contraceptive pills in the last 12 months was just 0.2%. 10

It is expected that medical students, being future health care providers, must have sufficient knowledge regarding all forms of contraception along with Emergency contraception. Worldwide there is variation of knowledge, attitude and practice of EC amongst health care providers. In our study, books, internet and friends were most common source of knowledge of Emergency contraception. In a study done by Parey et al. in Trinidad among tertiary level students, it was observed that media, internet and books were the most common source of knowledge regarding EC. Similarly, in the study done by Nasir Tajure in Ethiopia on graduating female students, friends, radio and television were most common source of knowledge of EC.

In the present study, various knowledge questions regarding EC were asked to the students. It was observed that, students were unaware regarding many aspects of EC. The percentage of unawareness ranged from 40% to 70% regarding various questions asked regarding knowledge of EC. In a similar study done by Giri et al on Post graduate students, Interns and medical undergraduate students in a medical college in Maharashtra, it was observed that overall good level of knowledge about EC was highest (47.6%) among postgraduates in comparison to interns (43.3%) and undergraduate students (41.6%).

The current study also assessed attitudes of Medical students regarding EC. 30 to 50% of medical students did not put forward any opinion regarding their attitudes to different aspects of EC. The general attitude of students towards EC was positive. In a study done by Giri et al, overall positive attitude towards EC was observed among 73.8% of the respondents. Similarly, positive attitude to EC was found in tertiary level students in the study done by Parey et al in Trinidad.

In our study, only one student reported to have used EC, while 26 respondents did not respond to this question. Similar findings were observed by Lakshmi et al in a study done on female medical students in Andhra Pradesh, where it was observed that no medical students had ever used EC pills. Similarly, in a study done by Rahaman et al on nursing staff in Sikkim, India, it was observed that almost 25% of nursing staff have ever practiced EC. In our study, among students who did not use EC, 40% reported their willingness to use EC, if needed. Also, 40% of them reported that, they would encourage their friends and relatives to use EC.

CONCLUSION

The great potential of EC to prevent unintended pregnancies and their complications is far from being realized. There is a lack of complete awareness about EC among studied population. As they are the health care providers in future, their knowledge regarding EC will be useful in educating public especially youth. Attitude was favorable towards EC in the studied population. Study

also document very low level of practice of EC among the students.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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