

Knowledge and Attitude of Emergency Contraception among Medical Undergraduate Students in Northern India

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ABSTRACT

Knowledge, awareness and accessibility of emergency contraception (EC) is still lacking. Medical students are the pillars of the future healthcare system. If their knowledge is lacking, we can think that what would be the awareness of the rest of the country. In India, knowledge and awareness of undergraduate students are not been adequately studied till now. Keeping this in mind, the present study aims to assess the knowledge, attitude and practice of EC among medical undergraduate students.

Objective: To assess the knowledge, attitude and practice of EC among medical undergraduate students.

Materials and methods: This is a cross-sectional study conducted among medical Interns of SN Medical College, Agra. One hundred and fifty students were randomly selected at a general meeting in the campus after a written and informed consent. A predesigned and structured questionnaire was used for collecting information and was completed by the students.

Results: The mean age of the respondents was 24 years. Out of which 40% were females and 60% were males. Only, 34.6% said that ECs should be taken after missed pills. Only 40% indicated use of EC after condom breakage and about more than two-third (72%) said it should be used after rape. Knowledge regarding correct time for taking emergency contraceptive pill (ECP) after unprotected sex was present in 118 (78%). A total of 68.7% did not know that ECs were more effective the sooner they were taken. A total of 70 (44.5%) incorrectly said that they were equally effective as traditional methods of contraception.

A total of 30% had no knowledge of its mechanism of action about 5% students were not aware of the doses of EC required. Only two-third students were aware of the fact that high dose of E+P is a method of EC. And, only 70% correctly defined timeframe of use of copper intrauterine contraceptive devices (IUCDs). Seventy-four percent students said that apart from formal education, media and internet helped them know about EC. Twenty-six percent additionally said that communication with friends added to their knowledge of ECs. Only, 54 (36%) were aware of the fact that ECs are available free of cost at government hospital.

Regarding attitude questions about one-third had the wrong concept that ECs use will leads to more promiscuity, ultimately leading to increased incidence of sexually transmitted diseases (STDs) and even human immunodeficiency virus/infection and acquired immune deficiency syndrome (HIV/AIDS). Seventy-two percent believed that some women will use it more frequently instead of regular contraception. About one half students believed that it may result in complication in future pregnancies or have a negative impact on fertility. About 30% did not want to use ECPs for fear of side effects. Only two-third of participants will recommend to friend/relative in case of need. One hundred and eight (72%) discourage its distribution by paramedical staff. Seventy-two percent said that they should be available without prescription. Thirty-two (22%) did not want to use ECP for fear of side effects.

There is a need to improve both education and attitude to use EC with emphasis on available methods and correct timing of use. Therefore, emphasis should be given to contraception in medical teaching.

Educating medical community will be at large benefit to the population as a whole. Emergency contraceptives should be easily accessible in hospitals and pharmacies with reduced costs.

Keywords: Attitude, Emergency contraception, Knowledge.

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INTRODUCTION

Emergency contraception (EC) is a safe and effective intervention to which all women should have access in the event of unprotected intercourse. Lack of accurate knowledge regarding EC is the main hurdle to the increased use of ECs. Emergency contraception is indicated after unprotected sexual intercourse, after rape, condom breakage, nonuse of contraception or missed pills. Emergency contraception is it will ultimately reduce the incidence of abortions and unplanned pregnancies which are a major hurdle for optimum maternal health. In India with its high unmet need for contraception and high fertility rate ECs can prove a step ahead to reduce adolescent pregnancies, unsafe abortions and thereby reducing measles, mumps and rubella (MMR).

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Knowledge, awareness and accessibility of EC is still lacking. Medical students are the pillars of the future healthcare system. If their knowledge is lacking, we can think that what would be the awareness of the rest of the country. In India, knowledge and awareness of undergraduate students are not been adequately studied till now. Keeping this in mind, the present study aims to assess the knowledge, attitude and practice of EC among medical undergraduate students.

OBJECTIVE

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MATERIALS AND METHODS

This is a cross-sectional study conducted among medical Interns of SN Medical College, Agra. One hundred and fifty students were randomly selected at a general meeting in the campus after a written and informed consent. A predesigned and structured questionnaire was used for collecting information and was completed by the students. Confidentiality and anonymity was reassured. Score of one was given for each correct response and 0 for incorrect response. There were eight questions for knowledge testing and eight questions for attitude testing.

Questions on Knowledge

- Q1: Is EC use increase susceptibility for sexually transmitted infections (STI)?
- Q2: Is EC misused as regular contraceptive than emergency one?
- Q3: Is promiscuity is increased by ECs?
- Q4: Emergency contraception result in complication in future pregnancy of fertility?
- Q5: Is there fear of side effects with use of ECs?
- Q6: Is subjects recommend it to a friend or relative in case of need?
- Q7: Is safety a concern?
- Q8: Should paramedical staff distributes EC in public?

Questions on Attitude

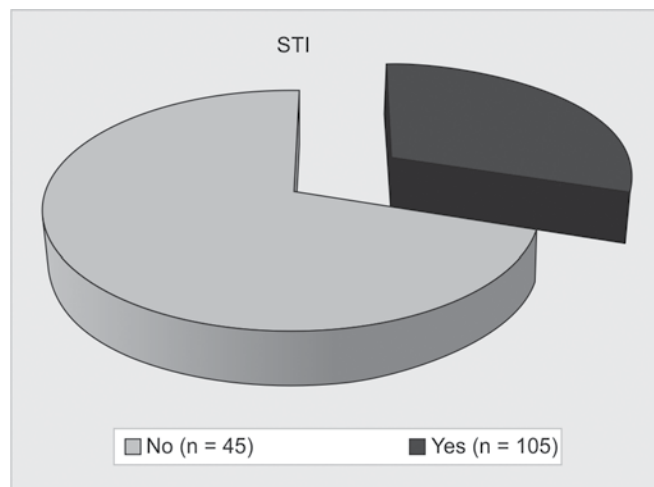
- Q1: Is public is aware of indications of ECs?
- Q2: How long after unprotected sex should EC pill be taken?
- Q3: What is the recommended no. of doses of EC pills (progesterone only)?
- Q4: Is high dose of E+P contraceptive pills, a method of emergency contraceptive?
- Q5: How long after unprotected intercourse can copper IUCDs be used as a method of EC?
- Q6: Is EC equally effective as traditional methods of contraception?

- Q7: Apart from formal education, media and internet helped them know about EC?
- Q8: Is subjects are aware of the fact that ECs are available free of cost at government hospital?

OBSERVATIONS

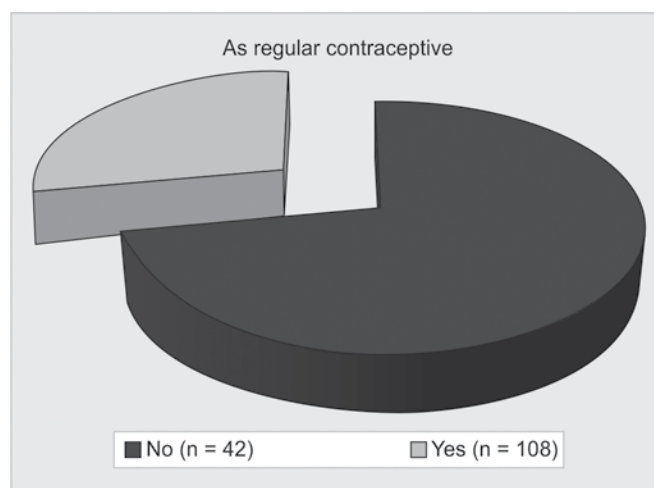
1. Its use will result in more women suffering from STI and even AIDS/HIV.

STI	No.	%
Yes	45	30
No	105	70



2. Some women may use it more frequently instead of using regular contraception?

	No.	%
Yes	108	72
No	42	28



3. Do you think that it may result in complication in future pregnancy of fertility?

	No.	%
Yes	76	50.6
No	74	49.4

4. Thirty percent do not want to use emergency contraceptive pill (ECP) for fear of side effects.



5. Would you ever use it or recommend it to a friend or relative in case of need?

	No. of patients	%
Yes	103	69
No	27	18
Not sure	20	13

6. Forty-seven (31.3%) believed that it is not safe for its users.
7. One hundred and eight (72%) discouraged its distribution by paramedical staff.

Knowledge Assessment

8. When do you think EC is required? (More than one answer can be correct)

	No. of patients	%
After rape	108	72
Missed pill	52	34.6
Condom breakage	59	39.3

9. How long after unprotected sex should EC pill be taken?

	No.	%
Within 24 hours	5	3.3
Within 72 hours	98	65.3
As early as possible	47	31.3

10. What is the recommended no. of doses of EC pills (progesterone only)?

	No.	%
Single doses	83	55
Two doses	60	40
Four doses	7	5

11. Is high dose of E+P contraceptive pills a method of emergency contraceptive?

	No.	%
Yes	96	64
No	54	36

12. How long after unprotected intercourse can copper IUCDs be used as a method of EC?

	No. of patient	%
Within 5 days	108	72
Within 72 hours	42	28

13. Is EC equally effective as traditional methods of contraception?

	No. of patient	%
Yes	70	44.5
No	80	53.3

14. Seventy-four percent students said that, apart from formal education, media and internet helped them to know about EC. Twenty-six percent additionally

said that communication with friends added to their knowledge of ECs.

15. Only 54 (36%) were aware of the fact that ECs are available free of cost at government hospital.

RESULTS

The mean age of the respondents was 24 years. Out of which 40% were females and 60% were males. Only 34.6% said that ECs should be taken after missed pills. Only 40% indicated use of EC after condom breakage and about more than two-third (72%) said it should be used after rape. Knowledge regarding correct time for taking ECP after unprotected sex was present in 118 (78%). A total of 68.7% did not know that ECs were more effective the sooner they were taken. A total of 70 (44.5%) incorrectly said that they were equally effective as traditional methods of contraception.

Thirty-three percent had no knowledge of its mechanism of action about 5% students were not aware of the doses of EC required. Only two-third students were aware of the fact that high dose of E+P is a method of emergency contraception. And, only 70% correctly defined timeframe of use of copper intrauterine contraceptive devices (IUCDs). Seventy-four percent students said that apart from formal education, media and internet helped them know about emergency contraception. Twenty-six percent additionally said that communication with friends added to their knowledge of ECs. Only 54 (36%) were aware of the fact that ECs are available free of cost at government hospital.

Regarding attitude questions about one-third had the wrong concept that ECs use will leads to more promiscuity, ultimately leading to increased incidence of sexually transmitted diseases (STDs) and even human immunodeficiency virus/infection and acquired immune deficiency syndrome (HIV/AIDS). Seventy-two percent believed that some women will use it more frequently instead of regular contraception. About one-half students believed that it may result in complication in future pregnancies or have a negative impact on fertility. About 30% did not want to use ECPs for fear of side effects. Only two-third of participants will recommend to friend/relative in case of need. One hundred and eight (72%) discourage its distribution by paramedical staff. Seventy-two percent said that they should be available without prescription. Thirty-two (22%) did not want to use ECP for fear of side effects.

DISCUSSION

Emergency contraceptive pills include high doses of combined oral contraceptives and progesterone only pills (POPs).¹ Ulipristal is a selective progesterone receptor

modulator licensed to be used orally. Within 5 days of unprotected intercourse. Emergency contraceptive pills have only minor side effects like nausea and vomiting. Effectiveness of EC is 75% in combined oral contraceptives (COCs) and 85% in POPs. Prevention of fertilization, implantation and tubal transport of sperm and ova are the stipulated mechanism of action of ECs. In a study by Puroshottam et al in India, 25% respondents thought EC as abortifacient compared to 25.8% in Ghana.

A number of studies have revealed that there is poor knowledge of EC among doctors.

In a study of Uganda² (2010), only 80% of healthcare workers had knowledge of ECs and 25% were not sure about the time limit within which EC is effective.

In a study in Nigeria³ (2011) on doctors (General Practitioners, Gynecologist and Surgeons) only 28% identified high dose estrogen as a method of contraception whereas in our study 64% were aware of this fact. In our study, 72% said it should be used after rape, this was the same figure as quoted in previous study.

In our study, one-third had the wrong concept that ECs use will leads to more promiscuity, where as in study by Parey B et al⁴ about 62% felt that increased ECs use would increase promiscuity.

Among graduating female students of Jimma University, Southwest Ethiopia,⁵ 163 (41.9%) out of 389 were ever heard of emergency contraceptive, only 11 (6.8%) used the method. The common sources of information were friends 60 (36.5%), radio 37 (22.8%) and television 20 (12.3%). One hundred and sixteen (71.2%) agreed to use emergency contraceptive when they practice unintended sexual intercourse. Knowledge regarding correct timing of intake of EC was found in 88% in Indian study by Puroshottam⁶ et al *vs* 78% in our study. Awareness and use of emergency contraception among graduating female students of Jimma University was low.

In another study in 130 students who had passed the family planning subject at Shahrekord University of Medical Sciences in Iran during the 2009 to 2010 about 85% of them, explained the contraceptive pills and 10% stated the intrauterine device (IUD) for EC. Seventy-one percent did not know the mechanism of action of EC pills and 29% believed that EC worked by disrupting a newly implanted ovum and would interrupt an ongoing

pregnancy. Finally, the awareness of students was insufficient in 15.4% of them. A total of 76.9% of them had moderate and 7.7% had sufficient knowledge. More than 80% of students had positive attitudes toward EC.

CONCLUSION

Emergency contraception is a safe and effective intervention to which all women should have easy access in the event of unprotected intercourse medical students are lacking detailed and correct knowledge regarding EC. There is a need to further educate them about EC. Lack of accurate knowledge regarding EC is the main hurdle to the increased use of ECs. So correction of these shortcomings is necessary to increase the optimal use of ECs by doctors and the women who may require it.

There is a need to improve both education and attitude to use EC with emphasis on available methods and correct timing of use. Therefore, emphasis should be given to contraception in medical teaching.

Educating medical community will be at large benefit to the population as a whole. Emergency contraceptives should be easily accessible in hospitals and pharmacies with reduced costs.

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