



ORIGINAL RESEARCH PAPER

Paediatrics

EMERGENCY CONTRACEPTION: A GLOBAL CHALLENGE KNOWLEDGE, ATTITUDE AND PRACTICE OF EMERGENCY CONTRACEPTION AMONG MEDICAL STUDENTS OF A TRIBAL BASED MEDICAL COLLEGE IN RIMS ADILABAD (TS).

KEY WORDS: Attitude, emergency contraception, knowledge, medical students

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ABSTRACT

Context:Emergency contraception (EC) which is a global challenge today is unique in its use among modern contraceptive methods. It is a drug or device to prevent pregnancy after unprotected sexual intercourse. Unlike other regular methods of contraception which are taken prior to the sexual act, EC is used after the unprotected sex, preferably within 72 hrs.

Aim:This study is mainly done to assess the knowledge and attitude toward use of emergency contraceptives among final MBBS part I/II medical students and house-surgeons in a tribal based medical college (RIMS) Adilabad.

Study design and format:A questionnaire based study was conducted among all the final MBBS part I/II undergraduate medical students and house-surgeons of the RIMS Medical College in district Adilabad, Telangana state.

Methods:A questionnaire seeking information on knowledge of undergraduate medical students was done over a period of 6 weeks in the month of November and December 2016, which included questions like:

Q1. Drugs used for EC.

Q2. Conditions when EC given.

Q3. timing of use of EC....etc

Results:In this study of 300 students, about 32% (96/300) of the participants were male and 68% (204/300) were females. About 62% (186/300) students were aware about the timing of use of EC. Visual media was the most common source of information about EC for these medical students.

Conclusions:As EC have become a global challenge today, the lack of appropriate in-depth knowledge of EC among future health care professional should alarm the medical teaching system as EC is the only method that can be used to prevent pregnancy after unprotected sex or contraceptive failure. A well co-ordinate training program should be conducted for all the other health care providers also.

Introduction:

Emergency contraception (EC) is defined as the use of a drug or device to prevent pregnancy after unprotected sexual intercourse¹ It has been shown to be both safe as well as effective if used within 72 hrs of unprotected intercourse. Unlike other regular methods of contraception which are taken prior to the sexual act, EC is used after the unprotected sex. There are two methods of EC: Emergency contraceptive pills (ECPs) and copper-bearing intrauterine devices (IUDs). The progestin only method uses the progestin levonorgestrel in a dose of 1.5 mg, typically up to 72 h after intercourse. This is given either as two 750 µg doses 12 h apart, or as a single dose pill. On the other, the combined or Yuzpe regimen uses large doses of both estrogen and progestin. This regimen recommends taking two doses at a 12 h interval. Levonorgestrel prevents pregnancy by preventing or delaying ovulation. ECPs may also work to prevent fertilization of an egg by affecting the cervical mucus or the ability of sperm to bind to the egg.²

Across the world, some additional methods are being used in EC. In addition to progestin only and combined methods, ulipristal acetate has been approved as an ECP in Europe in early 2009 and in the US in August 2010³ whereas mifepristone is generally used as either EC or as an abortifacient in Russia and China.

IUD is an effective alternative to ECPs for EC. Among the IUD's, copper-T IUD can be used up to 5 days after unprotected intercourse³The copper-bearing IUD primarily prevents fertilization by causing a chemical change that damages sperm and egg before they can meet²

As per the World Health Organization estimates, 210 million pregnancies occur annually, out of which, 38% are unwanted and 22% end up with abortion worldwide. In India, about 11 million abortions take place annually and around 20,000 women die every year due to abortion-related complications.²It is being realized that the unwanted pregnancy and need for induced abortion could be reduced by optimum use of EC as they prevent women's risk of becoming pregnant from a single act of intercourse by 79–99%.⁴

Government of India approved the dedicated regimen of emergency contraceptives in year 2001 and the same was introduced in the National Family Health Welfare Program in 2003⁵. It was approved as over the counter for adults aged 18 and above by the Government of India in 2005. This was done to reduce the rates of unwanted pregnancy and unsafe abortion.⁶ However, the fear of its use and improper use has failed to achieve the objective.

Subjects and Methods:

This was a cross-sectional study conducted among all the medical students in a Government Medical College (RIMS), Adilabad. The study was carried over a period of 8 weeks in the month of November and December 2016 among 300 final MBBS part I/II medical students and house-surgeons.

A questionnaire was conducted to assess knowledge and practice regarding use of EC among medical students based upon a review of literature and similar studies conducted elsewhere^{7,8,9,10}

Study plan:

All the students were gathered in a common seminar hall of the college where a detailed explanation was given to all regarding this study. All the participants were between the age group of 20-23 years. The questions were amended in such a way that it was acceptable by the health expert committee of concerned departments and who were not the part of our study. This process was aimed at arriving at a questionnaire wherein questions were unambiguous, appropriate and acceptable to respondents of the age group under study. We also tested the layout at this stage to ensure that the investigator could navigate their way easily through the questionnaire.

Methods

All students were informed about the objectives of the study and assured that the information collected would be treated as confidential and used only for research purposes. A written informed consent was taken from all the students. The questionnaire was administered to the student in their class rooms in batches. We make six batches of 50 each. The students were

adequately spaced during the questionnaire administration to avoid any communication. Due clarification was provided to students who asked for it regarding any of the item in the questionnaire. No names or other identifying information were included except the gender on the self-administered questionnaire to ensure anonymity.

The study has been approved by the Institution Ethics Committee.

Results :

Of the total students in the medical college, only 300 of the final year students and house-surgeons participated in this study. Females contributed to 68% (204/100) and males to 32%(96/100) of the study population. **Table 1.** The demographic characteristics of the participants are shown in **Table 3.** It is seen that 52 %(156/300) participants had a tribal background, having annual family income <50,000 rupees, and 16% (36/300) were Muslim/Christian by religion.

Table :1 No of participants.

MALE	96 (32%)
FEMALE	204 (68%)

Table.2: Types of EC known to participants.

Oral contraceptive pills	208	69.3%
IUCD	56	18.6%
Combined methods	36	12%

Table.3: Demographic details of participants:

Tribal	156	52%
rural	93	31%
urban	51	17%

Table 1: provides information on gender of the participants. **Table 2.** About 12 % (36/300) of all subjects had knowledge about use of both oral contraceptive pill (OCP) and Intra Uterine Contraceptive Device (IUCD) being as EC. Further, 69.3% (208/300) were aware that only OCP is used as an EC. Knowledge about the timing of use of EC is in 58% as knowing it to be used within 72 h of unprotected intercourse. All the situations under which an EC can be taken were known to 68% of the participants. There was batch wise difference in knowledge and attitude components.

Discussion:

The Government of India launched the family planning program in 1952 with the objective of reducing birth rate¹⁴Under the family planning program, temporary and permanent methods of contraception were introduced by the Department of Family Welfare, Government of India¹⁴However, contraceptive failure and unwanted pregnancy lead to high abortion rate³which eventually leads to MMR due to illegal/septic abortions by untrained persons.

An Indian Council of Medical Research study in India documented 6.1/1000 legal abortions and 13.5/1000 illegal abortions performed in country. One of the causes of illegal pregnancy is unplanned pregnancy due to multiple reasons. So one of the strategies to avoid unintended pregnancy is increased awareness and use of EC⁹, Keeping this in view, the current study was planned. The study population chosen for this purpose were the undergraduate medical students in a tribal area. The idea was to assess the level of awareness among future health care providers. It is these health care providers, who will be main drivers of our health care delivery.

The correct knowledge in this study about both IUD and OCP being used as EC was present only among 7% participants. Further 68% of study participants reported that only OCP's can be used as EC. Study on female graduates in Chandigarh revealed similar findings with 73% reporting OCP's as the only method of EC⁹Majority (77%) of participants were aware that EC drug composition has higher dose of hormones as compared to regular contraceptives.

Similar information was known to 41.43% doctors of Kashmir Valley¹⁰Further 26% of doctors in Delhi and 57.15% of doctors in Kashmir Valley mentioned that EC interferes with fertilization.

Two students (2%) in our study said EC induces abortion. This was much lower than 51.2% reported by the University students of Buea, 1325.8% reported by the university students of Ghana. The difference in percentage could be ascribed to the difference in the education backgrounds of the study participants. Further 25.5% of medical students from central India¹¹22% of gynaecologists of Nagpur.49% nursing students 8.58% of doctors of Kashmir Valley¹⁰,and 8.1% of doctors of Delhi reported a higher percentage than the participants from our study. The importance of awareness regarding EC among medical students cannot be emphasized more and therefore unawareness about proper method of use of EC may serve as a deterrent to our family welfare programs. This will not only lead to unwanted pregnancy but also may create health hazards. The lack of appropriate in-depth knowledge of EC among these future health care professional should alarm the medical teaching system. EC is the only method that can be used to prevent pregnancy after unprotected sex or contraceptive accident. Acquiring knowledge by remembering has been a part of medical education, but if integrated with skill based learning from early years of medical school can prove beneficial for health care system.

Conclusions:

The lack of appropriate in-depth knowledge of EC among medical students is a cause of concern. It should alarm the medical teaching system as EC is the only method that can be used to prevent pregnancy after unprotected sex or contraceptive accident.

Limitations:

The study has been limited to final MBBS undergraduate medical students and house-surgeons of a single institution only, As there is no other medical college in the nearby areas. Other health care providers like staff nurses and Para medical staff should also be trained regarding the uses of EC as they also contribute in the health system of our society.

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