ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 03 | March - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

KNOWLEDGE, ATTITUDE AND EXPERIENCE OF UNDERGRADUATE MEDICAL STUDENTS TOWARDS EMERGENCY CONTRACEPTIVE PILLS [ECP] IN WEST GUJARAT

Pharma

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ABSTRACT

Background: Emergency contraception (EC) is on-demand contraception that has the potential to avoid millions of unintended pregnancies. The understanding and awareness of young doctors towards EC, who may be the society's first point of contact, has not been thoroughly researched. The purpose of this research is to evaluate the information and awareness of young doctors at a teaching institute in West India. **Methodology:** This cross sectional, questionnaire based study took place in a medical college in west India. Participants were undergraduate medical students who were given a pre-designed self administered 22 items questionnaire and data was collected. **Observation:** In our study, majority of students (98%) were aware of ECPs but only 29% knew the mechanism of action of the pill. More than 70% students had knowledge about UPT, USG, prescription, efficacy in relation to ECP. 90% students had positive attitude towards it. **Conclusion:** Students had moderate knowledge about ECPs but the usage is very low. Students should be educated about emergency contraception, with a focus on indication, usage, side effects of ECPs since they are bridge between the general population and healthcare.

KEYWORDS

Emergency contraceptive pills [ECP], undergraduate medical students, knowledge, attitude.

INTRODUCTION

Emergency contraception (EC) can prevent up to over 95% of pregnancies when taken within 5 days after intercourse.

EC can be used in the following situations: unprotected intercourse, concerns about possible contraceptive failure, incorrect use of contraceptives, and sexual assault if without contraception coverage.

Methods of emergency contraception are the copper-bearing intrauterine devices (IUDs) and the emergency contraceptive pills (ECPs).

A copper-bearing IUD is the most effective form of emergency contraception available.

The emergency contraceptive pill regimens recommended by WHO are ulipristal acetate, levonorgestrel, or combined oral contraceptives (COCs) consisting of ethinyl estradiol plus levonorgestrel.

ECPs may also work to prevent egg fertilisation by changing cervical mucus or sperm's ability to adhere to the egg.

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. [1]

According to a systemic review done by Atkins et. Al. on Over-the-counter provision of emergency contraceptive pills, numerous nations allow direct access to ECPs with or without a prescription.[2]

In India, the Ministry of Health and Family Welfare (MoHFW) approved ECP as an over-the-counter (OTC) medicine in 2005. Less than one-third of women are aware of ECP, and just 1% have ever used it.[3]

METHODOLOGY

This was a cross-sectional study conducted among the medical students in Surat Municipal Institute of Medical Education and Research in Gujarat, West India. The study was carried over a period of 2 months in the month of November-December 2022. There are 462 students who agreed to participate in this study from the college.

A questionnaire was constructed to assess knowledge, attitude and experience regarding use of ECP among medical students based upon a review of literature and similar studies conducted elsewhere. The goal was to create a set of queries for a questionnaire that would be given to medical students. After sitting down together, the investigators brainstormed possible answers to each query. This was done to reach an agreement on the development of issues. Only when all of the group members agreed on a question was it approved for inclusion in the questionnaire. Thus a predesigned, pretested, and self-administered multiple response questionnaire was provided to students.[4-6]

The questionnaire consisted of a total of 8 questions and was divided into three parts; (1) knowledge part: Included question number 1–13; (2) attitude component: Question number 14-16 and (3) experience component: Question number 17-22.

All students were informed of the study's goals and assured that the information gathered would be kept confidential and used only for research reasons. The questionnaire was only given to students who provided written informed permission. Students were given the paper in their classrooms and the google link was shared to exam going students. To prevent any communication, the students were properly spaced during the questionnaire administration. Students who requested explanation on any of the items in the questionnaire received it. To guarantee anonymity, no names or other identifying information were included on the self-administered questionnaire except the gender. The study has been approved by Institution ethics committee.
The data was collected and manually entered in Microsoft excel computer program and results will be presented in a form of Bar graphs.

RESULTS

The study was conducted on a group of 462 medical participants from SMIMER Medical College to test their knowledge on ECPs. The group consisted of 286 female and 176 male participants within the age group of 18 – 23 years where maximum participants were 19 and 20 years of age.

There were total of 13 knowledge based questions in the questionnaire out of which 5 could not fit the structure of bar graph representation in

Table 1. However, it can be inferred from the analysis that, information about ECPs were gathered by participants was mostly from school (53%, n=243) followed by friends (18%, n=82), social media (12%, n=54), Google/YouTube/Reddit (9%, n=41) and parents (4%, n=18).

29% (n=133) of participants think that ECPs prevent fertilization, 10%(n=45) think that ECPs are abortive pills and 61%(n=284) think that ECPs are capable of both.

51%(n=236) participants think that the pill cannot be taken if you are pregnant, 16% (n=75) think that you can take the pill even if you are pregnant and the rest 33%(n=151) have no responses regarding this aspect of usage.

Out of the 462 participants, 81%(n=377) think that the pill should be ingested as soon as possible within 72 hours, 12%(n=56) think that it should be consumed within 24 hours, 3%(n=16) think that that it should be consumed within 12 hours and 3%(n=13) think that it should be consumed within 5 days. And 74% (n=340) think that early ingestion gives the highest efficacy and the rest 26% (n=122) think it doesn't affect the efficacy.

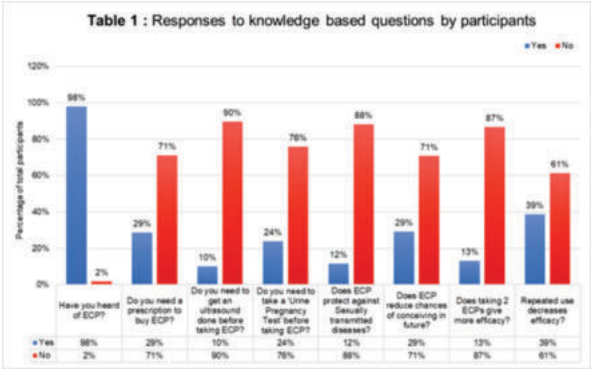

Table 1 which describes the questions based on the knowledge of the participants, it is evident that almost everyone was aware of ECPs of which 172 are males and 281 are females among the pool of 176 male and 286 females. Only 9 individuals were unaware of ECPs.

71% (n=329) participants knew that you don't need prescription to buy ECPs, of which 209 were females and 120 were males.

90% (n=415) of the participants were aware that you don't need to get an ultrasound done before taking ECPs, of which 263 were female and 152 were male participants.

76% (n=351) participants were aware that UPT is not required before taking ECP, of which 218 were female and 133 were male.

88% (n=408) participants were aware that ECP does not protect against STDs, of which 257 were female and 151 were male.

71% (n=327) participants were aware that ECP does not reduce the chances of conceiving in future, of which 201 were female and 126 were male participants.

87% (n=401) were aware that taking 2 ECPs does not increase the efficacy of the ECPs, of which 257 were female and 144 were male participants.

61% (n=283) were aware that repeated use does not decrease efficacy of the ECPs, of which 178 were female and 105 were male.

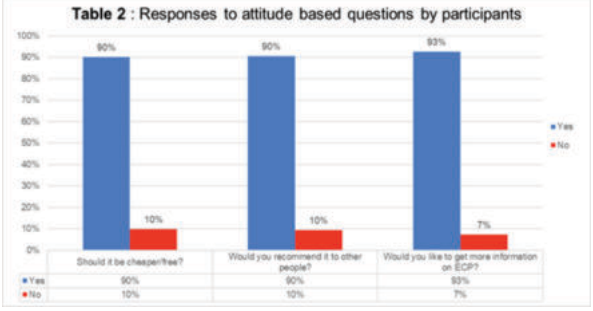

Table 2 shows that 90% (n=416) of the participants think that ECPs should be cheaper or be free from what their current price is, however, 10% (n=46) believe that utility of ECPs justify the current price. 90% (n=418) participants would recommend ECPs to other people and 10% (n=44) would recommend other methods of contraception. 93% (n=428) would like to get more information on ECPs while 7% (n=34) don't need more information regarding ECPs owing to either having sufficient knowledge about it or ECP not being a preferred method of contraception.

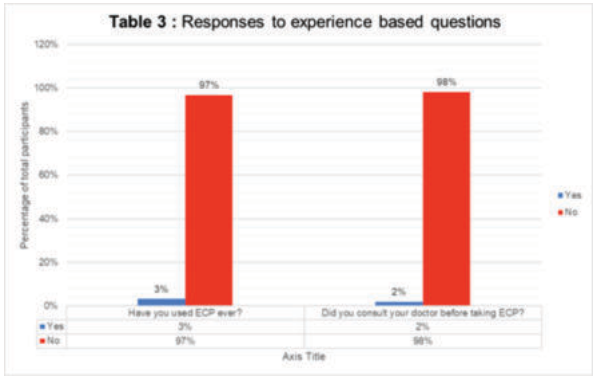

Table 3 shows that out of the total participants, 79% (n=364) prefer barrier method of contraception, 1% (n=6) prefer coitus interruptus, 8% (n=38) prefer copper-T, 2% (n=7) prefer injectable contraceptive and 10% (n=47) prefer OC pill as their preferred method of contraception.

Out of the total 462 participants 26 had sexual intercourse and out of them 15 participants had used ECPs. Out of the total sample size of 462 participants, 97% (n=447) never used ECPs and 3% (n=15) have used ECPs. And out of the 15 participants that have used ECPs, 2% (n=9) have consulted a doctor before/after using ECPs.

Out of the 15 participants who had taken ECPs, 80% (n=12) have experienced nausea/vomiting, 13% (n=2) have experienced irregular bleeding/spotting and 7% (n=1) has experienced headache as the side-effects of taking ECPs.

DISCUSSION

In 1952, the Indian government started the family planning programme with the goal of lowering the birth rate. The Department of Family Welfare, Government of India, introduced temporary and permanent means of contraception as part of the family planning programme.[7] Contraception failure and unintended pregnancy, on the other hand, result in a high abortion incidence. Postcoital contraception (EC) stops unwanted pregnancy following unprotected sexual contact and the failure of regular contraception.[8]

In India, an Indian Council of Medical Research study found that 6.1/1000 legal abortions and 13.5/1000 illegal abortions were done.[9] Unplanned pregnancy is one of the sources of illegal pregnancy for a variety of reasons.[10] This study was designed to check knowledge and attitude towards EC and medical students were chosen as the study population for this reason. The goal was to gauge future health care providers' degree of awareness. These health care professionals will be the primary drivers of our health-care delivery system.

In our study 29% participants think ECPs prevent fertilization, 10% think that these are abortive pills and 61% think that it does both. In a study done in North-west India, 45.1% of students were conscious of EC's ability to prevent implantation, while 44.9% were aware of EC's ability to prevent ovulation and implantation. [11] Similar research on doctors in Delhi found that 50% were aware of the EC action of blocking implantation of the fertilised ovum. Only 6.8% of Delhi respondents were aware that it inhibits ovulation. [12]

In the research done in North-west India, seven students (1%) stated that EC causes abortion which is less than what we found (10%) in our study. [11] This was significantly lower than the 51.2% recorded by Buea University students and the 25.8% reported by Ghanaian university students. The difference in percentage could be attributed to the research participants' different educational backgrounds.[13] Further 25.5% of medical students from central India, and 8.1% of doctors of Delhi reported this. [12,14]

71% participants in our study thought you don't need prescription to buy ECPs whereas in a study done in Rural area of Delhi shows that 35.1% participants think that you don't need a prescription which is much lower than our study.[15]

In our study 81% participants think that you should take ECP as soon as possible but within 72 hours while a study done in Delhi, 32.8% people think it should be taken within 72 hours which is again lower than our study. [15] 30% people from Ethiopia thinks the duration should be within 72 hours. [16] While, a study done in Uganda shows that only 14% participants thought the duration was within 72 hours.[17]

In our study 90% people would like to recommend ECPs to other people but also 90% participants feel that the price should be on the lower end or it should be provided by the government free of cost which shows a positive attitude of Medical students towards using ECPs. In a study done in Ethiopia, 63.2% participants would advice others to take ECPs in case of unprotected sexual encounter [16] While 33.9% people from another region of Ethiopia would like to advice about the same. [18]

Various studies from Northeast India[19], Delhi[15], Ethiopia[18], Southern Thailand[20], Southwest Ethiopia[16] shows mild to moderate level of knowledge about ECPs with fairly mixed attitude towards using it.

The limitation of this study was, it was a single-centered study and it could have been extended to other medical colleges in the region as well.

CONCLUSION

The results showed that students have moderate knowledge about indication, usage, side-effects of ECP. It is alarming that among medical students there is a lack of appropriate in-depth understanding of EC. It should cause concern in the medical education system because EC is the only technique that can be used to prevent pregnancy following unprotected sex or a contraceptive accident and in turn we can decrease the number of illegal abortions in the country. As a result, medical undergraduate education should include more information about family planning techniques, which are important not only for economic stability but also for promoting women's health and empowerment.

Financial Support And Sponsorship: Nil
Conflicts Of Interest: There are no conflicts of interest

Acknowledgements
We are grateful to Dr. Swati and Dr. Hetal for the help provided by them during data collection. Furthermore, we are immensely thankful to the study participants for their valuable time and cooperation

REFERENCES

1. World Health Organization. World Health Organization. Emergency Contraception. 2021.; 2021.
2. Atkins K, Kennedy CE, Yeh PT, Narasimhan M. Over-the-counter provision of emergency contraceptive pills: a systematic review. BMJ Open. 2022;12(3):e054122. doi:10.1136/bmjopen-2021-054122
3. Indian National Family Health Survey. India National Family Health Survey (NFHS-3) Ministry of Health and Family Welfare Government of India. http://www.mohfw.nic.in
4. Renjhen P, Kumar A, Pattanshetty S, Sagir A, Samarasinghe CM. A study on knowledge, attitude and practice of contraception among college students in Sikkim, India. J Turk Ger Gynecol Assoc. 2010;11(2):78-81. doi:10.5152/jtgga.2010.03
5. Raina S. Assessment of knowledge, attitude, and practice in health care delivery. N Am J Med Sci. 2013;5(3):249. doi:10.4103/1947-2714.109226
6. Misro M, Nandan D, Kishore V. Providers' knowledge, attitude and dispensing practices of E-Pills in government dispensaries of south district in Delhi, India. Indian Journal of Community Medicine. 2010;35(1):46. doi:10.4103/0970-0218.62553
7. Park K. Park's Textbook of Preventive and Social Medicine. 23rd ed.; 2011.
8. Mittal S. Emergency contraception-Potential for women's health.
9. Government of India. ANNUAL REPORT to the PEOPLE on Health Government of India Ministry of Health and Family Welfare.; 2011.
10. Amin-Shokravi F, Howden-Chapman P. Risk Factors of Unplanned Pregnancies in a Group of Iranian and New Zealander Women.; 2009. https://www.researchgate.net/publication/287887189
11. Gupta R, Raina S, Verma A, Shora T. Emergency contraception: Knowledge and attitude toward its use among medical students of a medical college in North-West India. J Pharm Bioallied Sci. 2016;8(3):235. doi:10.4103/0975-7406.175974
12. Singh S, Mittal S, Anandlakshmy PN. Emergency contraception: Knowledge and views of doctors in Delhi. Health Popul Perspect Issues. 2002;25:45-54.
13. Kongnyuy EJ, Ngassa P, Fomulu N, Wiysonge CS, Kouam L, Doh AS. A survey of knowledge, attitudes and practice of emergency contraception among university students in Cameroon. BMC Emerg Med. 2007;7(1):7. doi:10.1186/1471-227X-7-7
14. Giri P, Bangal V, Phalke D. Knowledge and attitude of medical undergraduate, interns and postgraduate students in India towards emergency contraception. N Am J Med Sci. 2013;5(1):37. doi:10.4103/1947-2714.106193
15. Sahu M, Chhabra P, Gautam V. Knowledge and parity: Perspectives of usage of emergency contraceptive pills among women of a rural area of Delhi. Nigerian Medical Journal. 2019;60(3):117. doi:10.4103/nmj.NMJ_121_17
16. Tajure N, Pharm B. 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.
17. Clinton C. Knowledge, Attitude and Practices towards the Use of Emergency Contraceptive Pills among Females Aged 15-25 Years in Tororo General Hospital, Tororo District. A Cross-Sectional Descriptive Study. sjhr; 2022. doi:10.51168/sjhrafrica.v2i6.142
18. Adraro Adasho Z, Mekonen A, Womdimu K, Yetena S. Knowledge and Attitude about Emergency Contraception among Female Students of Addis Ababa Medical and Business College-A Cross-Sectional Study.; 2022. https://orcid.org/:0000-0002-9446-5022
19. Panda S, Das R, Das A, Sharma N, Sharma A. A study to assess the knowledge and awareness among young doctors about emergency contraception. J Family Med Prim Care. 2021;10(6):2304. doi:10.4103/jfmpc.jfmpc_2439_20
20. Yongpraderm S, Uitrakul S, Daengnapapornkul P, O-in R, Sinsangbun B. Knowledge and attitude toward emergency contraceptive pills among first-year undergraduate students in Southern Thailand. BMC Med Educ. 2022;22(1). doi:10.1186/s12909-022-03659-2