ORIGINAL RESEARCH

Awareness and Use of Emergency Contraception Among Female College Students

Navinkumar Angadi¹, Shubha D B¹

ABSTRACT

Introduction: Women worldwide are at greater risk of complications of unintended pregnancy, particularly young women and adolescents girls. The risk increases many folds in developing countries due lack of proper knowledge, accessibility and availability of contraceptives. Preventing unintended pregnancy among sexually active young women is paramount importance which will in turn help in achieving MDG 5 (Improve maternal health: Target 5.B – Achieve universal access to reproductive health). To study awareness and use of emergency contraceptives among female college students, Davangere city.

Study Design: Cross-sectional, questionnaire-based study.

Materials and Methods: This study was conducted among college-going graduate female students of various colleges in Davangere city. Multi-stage systematic random sampling was used to select the respondents.

Results: Of 250 participants, 190 (91%) were heard of emergency contraceptives. Majority (73%) students didn’t know the indications/circumstances for use of ECP. Maximum (70%) told ECP were available in the form of oral pills. Majority (53%) of the participants opined that ECP is safe for its users and 102 (54%) agreed they would recommend ECP to others. Only 8% had ever used ECP. Out of these users, 12 (75%) of them told it’s difficult to get EC when needed and 10 (63%) told cost of EC was high.

Conclusions: In our study majority of young women had heard about emergency contraceptives but the knowledge about when to use or how to use them was very poor. Also availability and accessibility of EC was a major concern among those practicing them. Creating awareness and accessibility to emergency contraceptives among sexually active young women is need of the hour.

Keywords: Emergency Contraceptive; Awareness; Practice; College girls

How to cite this article: Navinkumar Angadi, Shubha D B. Awareness and use of emergency contraception among female college students. International Journal of Contemporary Medical Research 2015;(3):754-758

¹Assistant Professor, Department of Community Medicine, J J M Medical College, Davangere, Karnataka, India.

Corresponding author: Dr. Navinkumar Angadi, Assistant professor, Department of community medicine, J J M Medical College, Davangere, Karnataka, India.

Source of Support: Nil

Conflict of Interest: None

INTRODUCTION

Emergency contraception (EC)/post-coital contraception is the method of contraception which can be used in the first few hours/days of intercourse to prevent unintended pregnancy. Emergency contraceptives can be used following unprotected intercourse/contraceptive failure or misuse/rape/coerced sex. EC is available in two forms, as oral pills and intrauterine devices. Among oral pills Levonorgestrel pills, can be taken as a single dose (1.5mg) within five days of unprotected sex or in two doses (0.75mg 12 hours apart). A copper containing intrauterine device can also be used as an EC if it is inserted within five days of unprotected intercourse.¹

The unintended or unplanned pregnancies often lead to unsafe abortions which carry high risk of morbidity and mortality among women particularly among sexually active adolescent girls, which can be avoided by proper use of emergency contraceptives.²

Use of emergency contraception in developing country like India will play a very important role in reducing maternal mortality and morbidity and improving women’s health thus help in achieving MDG.² Also indirectly contribute towards reduction of perinatal mortality and morbidity by preventing unwanted births thus help in achieving MDG 4 (reduce infant mortality).³ As per NFHS III, knowledge about EC is 20 per cent in men and 11 per cent in women in India which is very poor compared to developed countries.⁴

Literature is also scarce in this field. Hence present study was undertaken with the objectives of assessing awareness and use of emergency contraceptives among female college students. Aim of the study was to check the awareness and use of emergency contraceptives.
among female college students of Davangere city.

MATERIALS AND METHODS

This cross sectional study was conducted for 3 months from 1st October 2014 to December 31st 2014 among 250 female college students from 3 different colleges in Davangere city. A two-stage systematic random sampling technique was applied, the first stage of which included random selection of 3 colleges in Davangere. In order to select these 3 colleges, a list of all the private and public colleges was obtained. This list included colleges which provide graduate degrees. In the second stage, two classes were selected randomly from each sampled college. The number of students in a class ranged from 35 to 50. Only female students present on the day of the interview in the sampled classes were requested to participate in the study. Face to face interview was done to obtain information on various questions regarding emergency contraceptives.

With regard to awareness of EC, the study was done by asking the question, “Have you ever heard about emergency contraception?” Out of 250 participants 190 told they have heard of emergency contraceptive and these formed the final sample for study. After taking verbal consent, students were interviewed by using predesigned, pretested, semi-structured questionnaire. Confidentiality of information was ensured. Statistical analysis was done by using proportion and Chi-square test.

RESULTS

The age of study participants ranged from of 18 to 23 years. The mean age was 19.82±1.19 years. 88 (46%) participants were from rural area and 102 (54%) were from urban area. Majority of participants 184 (97%) were unmarried.

Knowledge towards emergency contraceptives (EC) study population.

In our study out of 250 participants, 190 (91%) had heard of emergency contraceptives (EC). The main source of information were school teachers (35%) followed by the doctor or other health care personnel (30%). Out of 190 who had heard of EC, 154 (81%) told that EC prevents pregnancy. 93 (49%) answered the correct time to take emergency contraceptives after unprotected sex and 34 (18%) answered EC should be taken three hours before sex. Only 30 (16%) were knowing about indications for EC. When we asked about various methods of EC, 133 (70%) told oral pills and 54 (28%) told IUCD as a method of EC. 58 (31%) of participants were knowing about correct interval for repeat dose. 39 (21%) told nausea and vomiting as most common side effect of EC followed by bleeding disorders. 177 (62%) told that EC is available for free of cost at government hospitals. 127 (67%) told EC protects against sexually transmitted diseases. 44 (23%) told EC can be used regularly. (See table 1).

Attitudes towards EC among study population.

100 (53%) participants opined that EC is safe for its users. 87 (46%) felt EC would discourage consistent use of condom. 102 (54%) agreed to recommend EC to others. 126 (66%) opined that EC is better than abortion. 95 (50%) felt that purchasing EC will be embarrassing. 100 (53%) felt EC is good for reproductive health. 164 (86%) opined that awareness programmes about EC should be promoted by government. (See table 2).

Use of Emergency Contraceptives (EC) among study population.

In our study out of 190, 16 (8%) had ever used EC. out of these users, for 7 (44%) participants EC was prescribed by health care providers, 9 (56%) directly purchased from pharmacist. 12 (75%) of the users told its difficult to get EC when needed and 10 (63%) told cost of EC was high. (See table 3)

Knowledge of participants according to their Age, native place and marital status

76 (49%) participants in the age group of 18-20, 15 (42%) in the age group of 21-23 had good knowledge. This difference was not statistically significant. 46 (52%) participants from rural areas and 45 (44%) from urban areas had good knowledge. This difference was not statistically significant. 3 (50%) married and 88 (48%) unmarried participants had good knowledge. This difference was not statistically significant. (see table 4).

Attitude of participants according to Age, native place and marital status

94 (62%) participants in the age group of 18-20 and 27 (75%) in the age group of 21-23 had favourable attitude. This difference was not statistically significant. 50 (57%) participants from rural areas and 72 (71%) from urban areas had favourable attitude. This difference was not statistically significant. 3 (50%) married and 119 (65%) unmarried participants had favourable attitude. This difference was not statistically significant. (see table 5).

DISCUSSION

In the present study 91% of study population had heard
of emergency contraceptives and almost similar finding was observed by Nisha Relwani et al (92.7%). Our study observation is higher than the other studies conducted by Jimma Likisa Lenjisa et al (62.5%), Zewdu Shewangizaw Weret et al (48.2%) and Asmare Tesfa et al (40.5%).

The main source of information in current study was mass media like TV/Radio/ Newspaper (35%) and similar observation was reported by other studies like Wegene Tamire et al (38%), Baiden F et al, Asmare Tesfa et al (35.7%). But it is lower than study conducted by Nisha Relwani et al (65.5%)

Table-1: Knowledge towards emergency contraceptives (EC) among study population.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ECP prevent pregnancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>154</td>
<td>81</td>
</tr>
<tr>
<td>No</td>
<td>34</td>
<td>18</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Time to take Emergency Contraceptive pills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within 72 hours</td>
<td>93</td>
<td>49</td>
</tr>
<tr>
<td>3 hrs. before sex</td>
<td>34</td>
<td>18</td>
</tr>
<tr>
<td>3 days after sex</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>More than 3 days</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Don’t know</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>3. Indications/ circumstances for EC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After unprotected sex</td>
<td>28</td>
<td>15</td>
</tr>
<tr>
<td>Failed regular contraceptive methods</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Both i and ii</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Don’t know</td>
<td>140</td>
<td>73</td>
</tr>
<tr>
<td>4. Methods of EC pills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IUCD</td>
<td>54</td>
<td>28</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5. Interval for repeat dose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 hours</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>12 hours</td>
<td>58</td>
<td>31</td>
</tr>
<tr>
<td>24 hours</td>
<td>77</td>
<td>41</td>
</tr>
<tr>
<td>48 hours</td>
<td>34</td>
<td>18</td>
</tr>
<tr>
<td>Don’t know</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>6. Common side effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>39</td>
<td>21</td>
</tr>
<tr>
<td>Weight gain</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Menstrual irregularities</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Infertility</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Bleeding disturbances</td>
<td>29</td>
<td>15</td>
</tr>
<tr>
<td>Don’t know</td>
<td>84</td>
<td>44</td>
</tr>
<tr>
<td>7. EC available for free of cost at government centres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>117</td>
<td>62</td>
</tr>
<tr>
<td>No</td>
<td>73</td>
<td>38</td>
</tr>
<tr>
<td>8. EC protects against Sexually Transmitted Diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>127</td>
<td>67</td>
</tr>
<tr>
<td>No</td>
<td>63</td>
<td>33</td>
</tr>
<tr>
<td>9. EC can be used regularly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>44</td>
<td>23</td>
</tr>
<tr>
<td>No</td>
<td>146</td>
<td>77</td>
</tr>
</tbody>
</table>

Table-2: Attitude towards emergency contraceptives (EC) among study population.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EC is safe for its users</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>100</td>
<td>53</td>
</tr>
<tr>
<td>No</td>
<td>90</td>
<td>47</td>
</tr>
<tr>
<td>2. EC would discourage consistent use of condom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>87</td>
<td>46</td>
</tr>
<tr>
<td>No</td>
<td>103</td>
<td>54</td>
</tr>
<tr>
<td>3. You recommend EC to others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>102</td>
<td>54</td>
</tr>
<tr>
<td>No</td>
<td>88</td>
<td>46</td>
</tr>
<tr>
<td>4. Using EC is better than abortion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>126</td>
<td>66</td>
</tr>
<tr>
<td>No</td>
<td>64</td>
<td>34</td>
</tr>
<tr>
<td>5. Do you think Purchase of EC will be embarrassing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>95</td>
<td>50</td>
</tr>
<tr>
<td>No</td>
<td>95</td>
<td>50</td>
</tr>
<tr>
<td>6. EC is good for reproductive health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>100</td>
<td>53</td>
</tr>
<tr>
<td>No</td>
<td>90</td>
<td>47</td>
</tr>
<tr>
<td>7. Awareness programmes to be promoted by government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>164</td>
<td>86</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>14</td>
</tr>
</tbody>
</table>

Table-3: Use of emergency contraceptives (EC) among study population.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ever used EC methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>No</td>
<td>174</td>
<td>92</td>
</tr>
<tr>
<td>2. EC methods prescribed by Health care providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacist</td>
<td>9</td>
<td>56</td>
</tr>
<tr>
<td>3. Difficult to get EC when needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>4. Cost of the EC methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>10</td>
<td>63</td>
</tr>
<tr>
<td>Free at FHCs</td>
<td>6</td>
<td>37</td>
</tr>
</tbody>
</table>

...
70% knew that EC is available in the form of oral pills which is lower compared to other studies like Nisha Relwani et al.\(^5\) (78.5%), Asmare Tesfa et al.\(^8\) (77.6%) and Sonia Puri et al.\(^11\) (73%) and higher than study by Jimma Likisa Lenjisa et al.\(^6\) (46.3%). 28% of girls were knowing that IUCD can be used as EC and this finding is almost similar with study conducted by Nisha Relwani et al.\(^5\) (26.6%) and higher than study conducted by Sonia Puri et al.\(^11\) (14.9%), Asmare Tesfa et al.\(^8\) (14.3%) and Jimma Likisa Lenjisa et al.\(^6\) (3%).

31% of study population knew the indications for EC which is lower than studies conducted by Asmare Tesfa et al.\(^8\) (93.9%), Nisha Relwani et al.\(^5\) (46%) Jimma Likisa Lenjisa et al.\(^6\) (90%).

In the present study 49% of participants knew the correct timing for taking EC after unprotected sex and similar finding was observed by Jimma Likisa Lenjisa et al.\(^6\) (49.3%). But this finding is higher than other studies conducted by Baiden F et al.\(^10\) (36.5%) and Asmare Tesfa et al.\(^6\) (40.9%) and lower compared to study by Baiden F et al.\(^10\) (53.4%) .

54% of girls agreed to recommend EC to others and our results are lower than other studies conducted by Jimma Likisa Lenjisa et al.\(^6\) (58.1%), Asmare Tesfa et al.\(^6\) (64.3%) and Nisha Relwani et al.\(^5\) (70%).
In the present study 8% reported that they had used ECs before and our results are higher than other studies conducted by Nisha Relwani et al \(^5\) (5.7%), Eugene J Kongnyuy et al \(^12\) (7.4%) and lower than studies like Jimma Likisa Lenjisa et al \(^6\) (36.5%) and Asmare Tesfa et al \(^8\) (25.0%)

**CONCLUSION**

We conclude that the knowledge about the EC was poor and there was unfavourable attitude towards Emergency contraceptives among female college students. The use of emergency contraceptives was also poor. Factors like age, native place and marital status weren’t of any statistical significance in relation to their awareness regarding EC.

**RECOMMENDATION**

Efforts should be focused on providing health education with focus on the available methods, correct timing of use, and the health effects of emergency contraceptives. It should be done through all major means of communications such as peers, media (radio, television, posters and brochures), as well as delivering messages through health facilities. Health education should include young students, in order to reduce unintended pregnancies, many of which result in unsafe abortion and take a large toll on woman’s health.

The limitation of our study was that it was based on only female college students. We cannot guarantee that students provided honest answers to the questions, since the survey involved a sensitive matter.

The strength of our study lies in the fact that it focused on young females who also are important candidates for awareness generation with respect to EC.

**ACKNOWLEDGMENT**

Principals of the colleges and study participants.

**REFERENCES**