

Assessing knowledge and attitude of emergency contraception among female freshman students in Islamic Azad University of Toyserkan

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ABSTRACT: Background: Unplanned pregnancies and unsafe abortions are major challenge for fertility health of young adults. ECs provide women to prevent pregnancy after unprotected intercourse. These methods reduce the risk of unplanned pregnancies. **Objective:** The aim of this study was to assess knowledge and attitude of emergency contraception among freshman female students in Islamic Azad University of Toyserkan. **Methods:** A cross-sectional study was carried out on 100 female students in 2012. The sampling was done by taking census. Data collection tools were questionnaire. **Results:** %35 had ever heard of ECs. Their source of information was friends (%30), books (%22.5) and internet (%22.5). %2 of the participants had good knowledge about ECs and %16 had positive attitude toward it. No students have used emergency methods. Place of residence has a significant correlation with knowledge and attitude ($P < 0.005$). **Conclusion:** The findings of our study show lack of knowledge about ECs among students. Most of attitudes were neutral or negative about ECs. Therefore there is a strong need to educate students on ECs using valid sources like medical source.

Keywords: Knowledge, attitude, emergency contraception.

INTRODUCTION

Unintentional pregnancy is a major challenge for fertility health of young adults (1, 2) that affect women, families and the society they are part of (4, 3). Approximately 250 million pregnancies occur in the world annually, %38 of which is unintended and another %22 ends in abortion (5, 6, 7). In Iran every year 400 to 500 thousand unintended pregnancies occur(8). Unplanned pregnancy is a cause of intended abortion, low birth weight (LBW), delay in pregnancy care, increased mother and child mental and physical disorders (3, 4, 9, 10).

Every year about 68000 women lose their lives because of unsafe abortion (10). Emergency contraceptive methods (ECs) provide us with the opportunity to prevent pregnancy using OCPs (LD and HD)Yuzpe method, LNG (plan B), IUD(T380A), 120hrs after unprotected intercourse(4, 13). It is estimated that these methods reduce the risk of unintended pregnancy by %75-%99 (8, 14). Emergency contraceptive methods are safe, effective, inexpensive and user friendly, welcomed easily by most women (14, 15).

Due to the increasing rate of adolescent intercourse activity and decreasing first intercourse age at developing countries, the use of contraceptives to prevent unintended pregnancy and unsafe abortion is especially important (5,2). The reason for half of the unintended pregnancies is lack of knowledge about the contraception methods on the part of both partners (3). Different studies show that the knowledge of women about emergency contraception is little and their attitudes are negative towards the issue.

The aim of this study was to assess knowledge and attitude of emergency contraception among freshman female students of non-medical fields of Islamic Azad University of Toyserkan.

MATERIALS AND METHODS

The present study is a cross-sectional (descriptive-analytical) one carried out on 100 freshman female students of non-medical fields of study at Islamic Azad University of Toyserkan, Iran in 2012. The sampling was done by taking census. Data collection tools were questionnaire which included 4 questions on personal data (name and surname, age, marital status, field of study), 24 questions on knowledge of emergency contraception methods, 15 questions on attitude towards emergency contraception methods. In order to verify the validity of the questionnaire, content validity method was implemented and its reliability was verified using retest method and Pearson's correlation coefficient.

The attitude and knowledge was categorized as weak, moderate and fair according to their scores. The answer to each question was studied using descriptive statistics, means and the percentages. In order to find the relationship between the variables and the level of knowledge and attitude the chi squared test and Fisher's exact test.

Linear regression method was used to determine the association between dependent variables and EC knowledge and attitude.

The significance level was 0.05 for all statistics tests. The data were analyzed using Stata 11 software.

RESULTS AND DISCUSSION

Results

100 people filled in the questionnaire whose age average was $19/9 \pm 0/15$. %74 of them resided in urban area and the rest were rural area. %6 of them was married. %65 had never heard of emergency contraception methods. Their source of information was friends, books and internet. No students have used emergency methods (Figure 1).

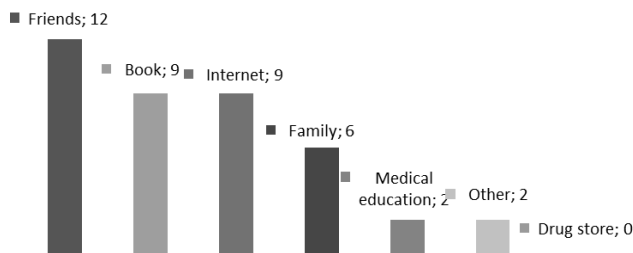


Figure 1. Source of information about EC

The average for the number of answered questions relating to knowledge was $6/2 \pm 0/4$. Table 1 shows percent of student answering knowledge question.

The average for the number of answered questions relating to attitude was $48/55 \pm 0/5$. Table 2 shows the answers to the questions relating to attitude.

Only %2 of the participants had good knowledge about ECs and %16 had positive attitude toward it. Table 3 shows the scores for knowledge and attitude according to age, place of residence, and marital status variables. There exists a significant correlation between attitude and place of residence ($P < 0.004$).

To determine the association between age, place of residence and marital status and EC knowledge and attitude, linear regression test were examined. Place of residence has a significant correlation with knowledge and attitude ($P < 0.005$). The study shows that the average of attitude score for students residing in rural area is 3.2 scores lower than those residing in urban area.

Table 1. Knowledge about ECs among students (n=100)

	Percentage
Indication EC used?	
After unwanted pregnancy	6
after unprotected sex	36
Before sex	32
I don't know	26
Recommended time to prevent pregnancy after unprotected sex?	
Within 120hr	2
Within 72hr	23
Within 120hr	17
I don't know	58
Drug composition in ECPs compared to the regular contraceptives?	
The same as regular contraceptives	1
The same but a high dose in the same hormones	16
Completely different from the regular contraceptives	17
I don't know	66
The mechanism of action EC	
Prevent pregnancy from occurring	44
Induced abortion	0
Prevent ovulation and implantation	26
I don't know	30
Recommended time for IUD on EC?	
Within 12hr after sex	7
Within 72hr after sex	12
Within 120hr after sex	5
I don't know	76
Recommended number of dose and time between the doses for LD?	
4 tablets, Two doses, 12 hrs.	11
4 tablets, One dose	10
4tablets, two doses, 24 hrs.	10
I don't know	69
Recommended number of dose and time between the doses for HD?	
2 tablets, Two doses, 12 hrs.	11
2tablets, One dose	11
2tablets, two doses, 24 hrs.	13
I don't know	65
Effectiveness of EC in prevent pregnancy	
100%	1
30-50%	20
75-99%	33
I don't know	46
Situation in which EC should be taken?	
When condom slip out	5
When is sex without contraceptives	2
Total	44
I don't know	49
Recommended number of dose and time between the doses for plan B (LNG)?	
One tablet	5
One tablet, two doses, 12 hrs.	9
Two tablets, two doses, 12 hrs.	1
I don't know	85
Which method vomiting is a side effect of ?	
IUD	1
LNG(Plan B)	12
Yuzpe method	39
I don't know	48
To be effective, EC must be taken within 12hr of unprotected sex.	
True	13
False	57
I don't know	30
Plan B will always make vomit	
True	21
False	5
I don't know	74
ECPs are more effective the earlier it is taken after unprotected sex	
True	53
False	4

I don't know	43
Should be used only once in a life time	
True	2
False	42
I don't know	56
EC always prevent pregnancy	
True	9
False	55
I don't know	36
If a women is already pregnant, EC will not end the pregnancy	
True	33
False	12
I don't know	55
Use of EC will have a negative effect on a women's future fertility	
True	17
False	24
I don't know	59
EC provide protection from STDs	
True	9
False	18
I don't know	73

Table2. Attitude about ECs among students (n=100)

Statement	Totally disagree	Disagree	Neutral	Agree	Totally agree	M±SD
ECs Should be taught	0	0	5	24	71	4,66±,057
ECs are method of abortion	24	28	36	8	4	3,6±,1
Should be cautious about using ECs	10	9	50	30	1	2,97±,1
There are ethical matters using ECs	18	18	53	7	4	3,4±,1
They are ideal for women who use no contraception methods	9	19	57	11	4	2,8±,09
ECS is reliable enough	8	31	44	14	3	2,7±,09
If a woman is already pregnant, EC doesn't have a bad effect on fetus	6	25	55	12	2	2,8±,08
Easily accessible	2	9	39	35	15	3,5±,09
Be inexpensive	5	8	53	25	9	3,25±,09
Be available without prescription	9	19	43	22	7	3±,1
There are no considerable side effects	3	22	53	19	2	2,95±,08
It will promote irresponsible behavior	7	9	55	23	6	3,1±,09
It doesn't prevent STDs	6	16	57	20	1	2,94±,08
I would like to use these methods	8	13	53	16	10	3,1±,1
They reduce the chance of unplanned pregnancy	5	2	27	34	31	3,8±,1

Table 3. Association between knowledge and socio- demographic status of students

variable		Knowledge			P _{Value}	Attitude			P _{Value}
		poor	Average	Good		Negative	Naturel	Positive	
Age	<20yrs	38	9	0	0/2	9	33	5	0/13
Group	>20yrs	37	14	2		15	27	11	
Place of residence	Urban	58	15	1	0/18	12	47	15	0/004
	Rural	17	8	1		12	13	1	
Marital status	Un married	72	21	1	0/14	23	57	14	0/55
	Married	3	2	1		1	3	2	

Discussion

In the present study the mean score for knowledge was 6.2 out of 24. %35 of students had ever heard about emergency contraception. This finding is in line with those of similar studies (1,3,5,7,13).

In a study carried out on Ethiopian undergraduate female students, the level of EC awareness was reported as high (10) which could be interpreted as resulting from the relatively better educational level of students comparing to that of participants in our study.

Out of those who had heard about ECs, the most common source was %30 friends, and the least common one was medical sources(%5).These findings are in line with those of similar studies as well(1,3,13,12).

%25 of the participants had a good and average knowledge of ECs. The findings show that the level of knowledge of students about ECs is low which is comparable with the findings of studies among female college students in southern Ethiopia (27/2%) and ADAMA university female students (21/9%). In these studies the most common source of knowledge is reported to be friends as well (3,5).

In our study, %16 of the students had a positive attitude toward emergency contraception and %60 had a neutral attitude. The reason might be their low knowledge.

The results show that there is no significant correlation among level of knowledge, attitude and age. In similar studies these factors are reported as having a significant correlation(1,3,5,10). In these studies the highest level of knowledge exists in ages 20-24. The age range of participants in our study was 19-20 years of age, all of whom were classmates. In other studies the number of participants was higher and the age range was quite wider.

General awareness and attitude about ECs was significantly associated with place of residence so that students residing in urban areas obtained higher knowledge scores. These results are in line with the results of similar studies (1, 5).

The number of participants who had ever used EC was low which could be caused by the low level of knowledge. These finding is comparable those of other studies (1,5).

CONCLUSION

The findings of our study show lack of knowledge about ECs among students. Most of attitudes were neutral or negative about ECs. The major problem relating to the EC is not failure or its side-effects but not being well-informed about them and negative or neutral attitudes towards them which prevents people from using them. Without education and true transformation of knowledge the family planning programs are doomed to fail. Therefore there is a strong need to educate students on ECs using valid sources like medical source.

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