

## **Evaluating the Level of Awareness in Health System Personnel and Their Perception Towards Emergency Contraceptive Methods (EC)**

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**Abstract:** In order to determine the perception and awareness of the health system personnel in regards to Emergency Contraception methods (EC), 216 health workers were recruited into the study. In this study, 216 eligible subjects were selected from 16 clinics using a randomized sampling method. The subjects filled out a pretest questionnaire, which included in this study. Legal consent, General information (including demographic characteristics, obstetrics and contraceptive history), 13 perceptual questions about (EC), 14 awareness questions about (EC). A significant relationship was found between (EC) awareness of the subjects and their sex, level of education and their study major. However, no relationship between personal characteristics and perception was observed. Moreover, no association was found between perception and awareness of (EC) in this study. Considering, the poor knowledge (45.5%) and indifferent perception (47.4%) of the health system personnel regarding (EC), the execution of educational classes is necessary for improving their role in the community health system.

**Key words:** Health system personnel, emergency contraceptive methods, awareness, perception

### **INTRODUCTION**

Through out the past decades, shrinking the population has become a major concern of the world. In developing countries, population growth has contributed to increasing levels of poverty, aggravation and hindering progress (Zanjany, 2000).

In the last 50 years, the world's population has grown dramatically. For instance, the world's population was 1 billion in 1800, 4 billion in 1974 and 6.1 billion in 2000. The statistic center of Iran reported the growth rate index for the years 1991, 1994 and 1996 to be 2.5, 1.83 and 1.86%, respectively.

Undesired pregnancy has been a global problem. In Iran, many studies indicate that in spite of easy access to different kinds of contraceptive methods, every year the country faces 400,000-500,000 unwanted pregnancies.

It has been estimated that emergency contraceptive methods can prevent unwanted pregnancies in 75% of the cases (Klima *et al.*, 1998). These methods are safer and have much lower risks than induced abortion (Chion, 1998).

Statistics from health centers in the south of Tehran indicated that in the year 2000, most of the people who

referred to those centers preferred oral contraception and the use of condoms while ignoring other preventive methods. It therefore, becomes obvious that educating clients to use (EC) when unpredictable intercourse occurs is extremely important (Morgan *et al.*, 1997).

In any given health system, doctors, midwives and health providers have specific responsibilities especially when it comes to health promotion and the execution of family planning programs. Consequently, we decided to do a research that evaluates the level of knowledge of the personnel in health centers and clinics regarding these important contraceptive methods.

### **MATERIALS AND METHODS**

This study was an analytical-descriptive study carried out for a period of 10 months during the year 2005. Two hundred and sixteen health workers, who worked in health clinics of Tehran University and who had at least a high school diploma in one of the health or medical related majors were chosen to participate in the study. The sampling method was multi-staged.

First, 13 health centers from 3 major regions (South, Ray and Eslam shahr) under the supervision of Tehran

University were randomly selected. The eligible subjects were then recruited into the study from these 13 centers, again on a random basis.

All subjects filled out a questionnaire, which contained 4 parts; the first of which concerned legal consent. The second part of the questionnaire contained questions on personal characteristics and obstetric and family planning history. For the third part thirteen questions were designed to assess the subject's level of knowledge concerning emergency contraception and in the fourth part fourteen questions were asked about the subject's perception towards these methods.

In this study, the descriptive statistic that was used for data analysis were frequency, mean and Standard deviation.

Based on their level of importance, knowledge questions were scaled as follows: 3 points were given to a correct answer to the tenth question, 2 points for a correct answer to questions 3, 4 and 6, one point for question 5 and 0.5 point for questions 2 and 7. A correct answer to every other question scored one point.

We categorized the level of knowledge according to the below classification: a score with >30 points was considered good, a score between 20-30 was intermediate and any score below 20 was considered poor.

In order to quantify, the subject's perception towards emergency contraception, we used the LICERT scale categorization. A score between one and five was given to each question. A negative attitude was assumed for those with total scores of fewer than 50, a 50-60 score was classified as indifferent and those with scores above 60 were considered to display a positive attitude towards emergency contraception.

Fisher exact test,  $\chi^2$  and Pearson's correlation index were used for evaluating the relationship between the variables.

## RESULTS

As indicated in Table 1, 45.5% of the subjects had poor knowledge, 44.5% had fair knowledge and 10% had factory information about emergency contraception.

About 47.4% of the subjects were indifferent, 15.6% had a negative perception and 37% showed a positive attitude towards emergency contraception.

Personal characteristics of the subjects are shown in Table 2. About 81.6% were female, 78.1% were married, 47.2% had a bachelor degree, 24.5% were midwives. About 13.5% were physicians 62% were graduates of other medical and health related majors (11 different majors). About 74.1% were full time employees.

Table 1: Distribution of level the subject's awareness and Perception about emergency contraception

	Awareness		Knowledge		
	Freq.	(%)	Freq.	(%)	
Negative	34	15.6	Poor	98	45.5
Indifferent	102	47.4	Intermediate	96	44.5
Positive	80	37.0	Good	22	10.0
Sum	216	100.0	Sum	216	100.0

Table 2: Distribution of subject's personal characteristics

Characteristics (%)	Freq.	(%)
<b>Sex</b>		
Female	176	81.6
Male	40	18.4
<b>Marital status</b>		
Married	169	78.1
Single	45	21.9
<b>Education</b>		
Degree diploma	65	30.1
Bachelor	102	47.2
Master	5	2.3
PhD	37	17.2
Profession	7	3.2
<b>Educational course</b>		
Midwifery	53	24.5
Medical	29	13.5
Else	134	62.0
<b>Work experience (years)</b>		
Less than 10 years	49	22.9
10-15 years	51	23.8
15-20 years	65	29.9
>20 years	51	23.4
Sum	216	100.0

About 29.9% of the subjects had had one pregnancy and 30.5% had given birth to a child. About 61.2% were using one of the existing contraceptive methods, 23.9% of which were using these methods incorrectly. Condoms were their choice in 26.9% of the cases. About 18.9% of the subjects were familiar with emergency contraceptive methods and 9% of them had actually used those methods previously. Most of the employees had 15-20 years of work experience.

About 50.7% of the subjects had undergone family planning consultations but 21.4% felt that these consultations were unnecessary. Interestingly however, only 44.8% of the pregnancies were previously planned.

The relationship between the subjects knowledge and personal characteristics are shown in Table 3. There is a significant statistical relationship between the subjects sex, major of study, level of education and their knowledge of EC ( $p = 0.001$ ). However, no significant relationship was found between the subject's personal characteristics and their perception towards EC. Similarly, no significant relationship was observed between the level of knowledge and perception (Table 4).

Table 3: Distribution of subject's obstetric and contraceptive characteristics

Characteristics	N	(%)
<b>Pregnancy</b>		
None	27.0	15.3
1	63.0	35.8
2	51.0	29.0
3	27.0	15.3
4	8.0	4.60
<b>Planned pregnancy</b>		
Yes	101.0	46.8
No	48.0	22.2
<b>Contraception method</b>		
Oral	14.0	6.40
Condom	56.0	26.0
IUD	16.0	7.40
Withdrawal	26.0	12.0
Injection	9.0	4.20
Emergency	10.0	4.70
Nothing	85.0	39.3

This information was gathered from the female subjects

Table 4: Distribution of correlation between level of awareness and subject's personal characteristics

Personal characteristics	Fisher exact	p-value
Sex	$\chi^2 = 13.496$	*p = 0.001
Marital status	$\chi^2 = 2.8290$	p = 0.965
Educational level	$\chi^2 = 54.050$	*p = 0.001
Educational course	$\chi^2 = 84.685$	*p = 0.001
Type of recruitment	$\chi^2 = 5.3140$	p = 0.531
Spouse job	$\chi^2 = 10.408$	p = 0.535
Spouse education	$\chi^2 = 14.877$	p = 0.161
Family planning consultation	$\chi^2 = 4.4200$	p = 0.633
Planned pregnancy	$\chi^2 = 7.2490$	p = 0.510
Using of family planning	$\chi^2 = 10.327$	p = 0.084
Kind of contraception	$\chi^2 = 17.749$	p = 0.218
Familiarity with EC	$\chi^2 = 8.1060$	p = 0.196
Work experience (years)	$\chi^2 = 7.2440$	p = 0.237

\*There is significant relationship between sex, level of education and course education with awareness toward emergency contraceptive methods

### CONCLUSION

Despite the fact that 61.2% of the subjects of this study were using family planning techniques, only 18.9% of them were familiar with EC methods while 44.3% had absolutely no information and 35.3% of the cases had incorrect information about EC.

Sills *et al.* (2000) showed that poor knowledge of contraceptive methods is the main barrier for the proper operation of emergency contraceptive methods. As a result, awareness is the most important factor that has to be changed.

Zeteroglu *et al.* (2004) and Mandiracioglu *et al.* (2003), manifested similar results compared to the present study.

The knowledge of health workers on EC and their perception towards these methods are very important when considering their specific role in collecting information and providing precise family planning consultations, which become very important when it comes to population control and preventing unwanted pregnancies. It seems however that the knowledge obtained through academics is not adequate. Therefore, the execution of educational courses on family planning

and especially EC during the workers employment period is one important goal (McDonald *et al.*, 1999; Delbanco *et al.*, 1998).

Kubba *et al.* (1997) indicated that one the most common reasons for using EC methods are uncovered coitus and condom failures.

Sorensen (2000) stated that because of the high and recurrent failure rate of condoms, the use of EC methods becomes necessary.

In Iran, condoms and withdrawal are the most common of the contraceptive methods; both with considerably high failure rates. This provides more reason for health workers to become informed about EC and to be able to provide their clients with this information.

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