

Knowledge and attitude about emergency contraception among Saudi women of childbearing age

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ABSTRACT

Context: Emergency contraception (EC) use is rare in Saudi Arabia. **Aims:** The aim of this study is to determine the knowledge, attitude, and practice of EC among Saudi women of childbearing age. **Settings and Design:** This study is a cross-sectional descriptive study using a survey questionnaire tool. **Materials and Methods:** We conducted a survey of married women of childbearing age (18–45 years) attending the Obstetrics and Gynecology Clinic at Riyadh, Saudi Arabia between January and April 2018. **Statistical Analysis Used:** Pearson's Chi-square test is used for this study. **Results:** This study included 370 of 525 (70.5%) women, with a mean age of 32.3 ± 6.3 years. Of these, 117 (31.6%) knew how to prevent pregnancy after unprotected sex, and 62 knew about EC. Forty-two women (67.7%) thought EC should be widely advertised, and 30 (48.4%) thought it should be made available even without prescription. Forty-seven women (75.8%) said that they were not shy to ask for EC, and 37 (59.7%) claimed that both partners should decide about the use of EC. The most common reason for not using EC was medical concerns ($n = 30$, 48.4%). Thirty three (53.2%) of the 62 women with knowledge about EC would use it immediately after sex. Knowledge, awareness, and use of EC were significantly correlated with higher monthly income, educated women, having three or more children, and working women. **Conclusions:** Among Saudi women, knowledge, awareness, and use of EC remain low, although a positive attitude for future use of EC exists. Health information campaigns are necessary to reach women, particularly those of low socioeconomic status, less educated women, and housewives to explain EC, its availability, and its proper use.

Keywords: Attitude, emergency contraception, knowledge, Saudi Arabia, use

Introduction

Emergency contraception (EC) is practiced by women, particularly for birth spacing and control.^[1] The purpose of EC is to prevent pregnancy after unprotected intercourse.^[1,2] If used correctly, EC can prevent 98% of unintended pregnancies.^[3,4] A number of EC-related studies have been conducted in the Muslim world, particularly in Saudi Arabia.^[5-7] Saudi women have very low awareness of EC (6.2%) due to the fear of possible health effects and religious concerns.^[7] Educated women have better knowledge; however, they lack information on the availability and cost of EC.^[8]

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Materials and Methods

We conducted a cross-sectional descriptive study using a survey questionnaire tool among married fertile women aged 18–45 years who were attending the Obstetrics and Gynecology (OB-Gyn) Clinic at King Fahad Medical City, Riyadh, Saudi Arabia between January and April 2018. Single women as well as women aged <18 and >45 years were excluded from the study to make the sample population more homogenous.

The required sample size was calculated based on the formula $N = Z^2P(1 - P)/c^2$, where N is the sample size, Z is the level of confidence (1.96 for 95% confidence interval), P is the percentage of answering the questionnaire expressed as a decimal (e.g., 0.6 for 60% of the population), and c is the confidence interval

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expressed as a decimal (e.g., 0.05). The calculated sample size was 278 patients.

A convenience sampling technique was used for recruiting participants and satisfied the required sample size. Patients visiting the OB-Gyn clinic were recruited in the study. The purpose of the study and issues about confidentiality were explained to potential participants. Participants voluntarily agreed to participate in the survey and signed a consent form.

The survey questionnaire was designed and formulated using a series of literature reviews that focused on women's knowledge and attitudes toward EC. Validation was performed on 10 women on 2 separate occasions to ensure readability and understandability and to check for content validity of the questionnaire. Cronbach's alpha was 0.85. The survey questionnaire was divided into two main parts: (1) sociodemographic questions regarding age, education, family income, and number of children; and (2) questions regarding knowledge, attitude, and barriers to the use of EC.

Data were analyzed using Statistical Package for Social Sciences (SPSS) version 23.0 (SPSS Inc., Armonk, NY, USA). Descriptive statistics (mean, median, standard deviation, numbers, and percentages) were used to describe the characteristics of the women and categorical variables. The Chi-square test was used to determine the significant differences in the frequencies between the two categorical groups, and the independent *t*-test was used to determine the significant difference between two means. Pearson's Chi-square test was used to determine the correlation between two variables. $P < 0.05$ was considered statistically significant.

Prior to starting the study, the Institutional Review Board of King Fahad Medical City approved the conduct of the study. The identity of the participants was anonymized, and strict confidentiality was secured in order to not divulge any personal information of the participants.

Results

A total of 370 out of 525 eligible women (70.5%) agreed to participate in the study. The mean age of the 370 women was 32.3 ± 6.3 years (median, 32.0 years; range, 18–45 years). Among the women, 195 (52.7%) were housewives, 55 (14.9%) were teachers, and 120 (32.4%) had other professions. More than half ($n = 212$, 57.3%) of the women were college graduates, and most ($n = 153$, 41.4%) had a monthly income of 5000–10,000 Saudi riyal (SR) [Table 1].

There were 117 women (31.6%) who answered “yes” to the question “If a woman had unprotected sex, is there anything she can do to prevent pregnancy?,” whereas 106 (28.6%) answered “no,” 143 (38.6%) answered “I don't know,” and 4 (1.1%) left the question unanswered. Of these 117 women, 62 (53.0) would use EC after unprotected sex, whereas 13 (11.1%) would pray and 11 (9.4%) would use herbal medicines and remedies.

Table 1: Demographic profile of the 370 women who participated in the survey on the use of emergency contraception

Demographics	Mean (SD)	n (%)
Age (years)	32.3 (6.3)	
Occupation		
Housewife		195 (52.7)
Teacher		55 (14.9)
Other		120 (32.4)
Educational level		
Primary school		24 (6.5)
High school		118 (31.9)
College graduate		212 (57.3)
Postgraduate		16 (4.4)
Monthly income (SR)		
<5000		96 (25.9)
5000-10,000		153 (41.4)
>10,000		121 (32.7)

SD: Standard deviation

Sixty-two women (16.8%) claimed to have knowledge about EC. Of these, 23 (37.1%) had used EC to prevent pregnancy and 34 (54.8%) would most likely use EC to prevent pregnancy even if the chance of pregnancy prevention was only 75%. Nine women (14.5%) had visited a family planning clinic during the previous year. Among these 62 women, the most common sources of knowledge included their doctor or family planning advisor ($n = 22$, 35.5%) as well as social media/internet ($n = 17$, 27.4%). There were 42 women (67.7%) who thought that EC should be widely advertised, whereas 30 (48.4%) thought it should be made available even without a prescription. Forty-seven women (75.8%) said that they were not shy to ask for EC. Thirty-seven women (59.7%) claimed that both male and female partners should decide on the use of EC. The most common reason for not using EC was medical concerns ($n = 30$, 48.4%) [Table 2].

Regarding knowledge about EC, when asked about the maximum acceptable time to use a pill for EC after unprotected sexual intercourse, 33 (53.2%) answered “immediately after sex.” However, when respondents were asked about the maximum acceptable time to use an Intrauterine device (IUD) for EC after unprotected sexual intercourse, 41 women (66.1%) answered that they did not know. Forty-three women (69.4%) answered that their current pregnancy would be “at risk” following use of EC [Table 3].

The knowledge and awareness of EC and its use were significantly correlated with higher monthly income of ≥ 5000 SR ($r = 0.105$, $P = 0.045$), educated women ($r = 0.102$, $P = 0.049$), women with three or more children ($r = 0.118$, $P = 0.024$), and working women ($r = 0.115$, $P = 0.028$).

Discussion

In this study, only 117 women (31.6%) who responded to our survey believed that there was something a woman

Table 2: Responses to questions on knowledge, attitudes, and use of emergency contraception (EC) among 62 women who claimed to have knowledge of EC

Question response		n (%)
Have you ever used EC to prevent pregnancy?	Yes	23 (37.1)
	No	39 (62.9)
EC reduces the chance of pregnancy by up to 75%; would you still use it to prevent pregnancy?	Likely	34 (54.8)
	Not sure	16 (25.8)
	Not at all	12 (19.4)
Did you visit a family planning clinic last year?	No	53 (85.5)
	Yes	9 (14.5)
What is the source of knowledge on EC?	Magazine	3 (4.8)
	Friend	10 (16.1)
	Family member	10 (16.1)
	Doctors or family planner	22 (35.5)
	Social media and internet	17 (27.4)
Should EC be more widely advertised?	Yes	42 (67.7)
	No	7 (11.3)
	Unsure	14 (22.6)
Should EC be available without prescription?	Yes	30 (48.4)
	No	29 (46.8)
	Unsure	3 (4.8)
Would you feel shy to ask for EC?	Yes	11 (17.7)
	No	47 (75.8)
	Unsure	4 (6.5)
Who decides the use of EC?	Female partner	25 (40.3)
	Both	37 (59.7)
If you are not willing to use EC, what is the reason?	Religion	9 (14.5)
	Medical	30 (48.4)
	Financial	2 (3.2)
	Difficult to access	3 (4.8)
	Others	18 (29.0)

EC: Emergency contraception

Table 3: Responses about the use of EC in women who claimed to have knowledge of emergency contraception (n=62)

Question	Response	n (%)
Q3A What is the maximum acceptable time for using emergency contraception (pill) after sexual intercourse?	Immediately after sex	33 (53.2)
	Within first 48 h	14 (22.6)
	Within 72 h	3 (4.8)
	Within 5 days	1 (1.6)
Q3B What is the maximum acceptable time for using emergency contraception (IUD) after sexual intercourse?	Don't know	11 (17.7)
	Immediately after sex	6 (9.7)
	Within first 48 h	9 (14.5)
	Within 72 h	4 (6.5)
	Within 5 days	2 (3.2)
Q3C What is the risk to your current pregnancy in cases that EC is used?	I don't know	41 (66.1)
	At risk	43 (69.4)
	No risk	19 (30.6)

could do to prevent pregnancy after unprotected sex, and only 62 women (16.8%) claimed that they had knowledge of EC. This is significantly higher than the 6.2% reported by Karim *et al.* in 2015.^[7] Both studies were conducted using survey questionnaires and both settings were in a tertiary referral hospital. One probable explanation for our significantly higher awareness/knowledge rate is the improvement of health information campaigns spearheaded

by the Ministry of Health of Saudi Arabia. The website, Gynopedia, states that EC (the morning after pill) was banned in Riyadh until 2018.^[9] Furthermore, women can purchase contraceptive pills from the pharmacy, even without a prescription. These claims remain to be verified, particularly with the Ministry of Health of Saudi Arabia, because there are no data available pertaining to the status of EC and its availability in Saudi Arabia.^[10] Despite our study revealing a higher awareness and knowledge rate, a large number of women still lack knowledge of EC: 106 women answered “no,” 143 answered “I don’t know,” and 4 left the question unanswered (a total of 253 women or 68.4% of our respondents), suggesting that almost 70% of Saudi women have no knowledge of EC. Furthermore, only 62 of the 117 women who knew about EC would actually use it, and of these 62 women, only 23 had actually used EC [Table 2]. If we calculate the rate of knowledge of EC in our population based on responses stating that the respondents have or would use EC, then the knowledge rate would be only 6.2% (23 women with knowledge and who would use EC out of a total of 370 respondents), which is identical to the findings of Karim *et al.*,^[7] indicating that there is a large number of women who claim to know about EC but lack sufficient knowledge and would therefore either not use it or would use it incorrectly. Our rates are

still relatively higher than the worldwide rate of <3% in many countries.^[11]

The importance of health education and the benefit of health information campaigns conducted by the government or individual institutions throughout Saudi Arabia are also depicted in our results. Only nine women (2.4% of the total 370 respondents) had visited a family planning clinic the previous year, and all of these women knew about EC [Table 2]. This is also supported by the fact that 22 women (35.5% of the women with knowledge, and 5.9% of all respondents) claimed to have received information about EC from their doctor or family planning clinic, and the remaining had obtained it from social media and the internet [Table 2]. There is a huge disparity in the information obtained between a face-to-face discussion with a doctor/family planning provider and information obtained from social media. Social media is only effective in certain populations, and this information can only cater to those who can comprehend it because it may become biased as the reader will suit it to her needs, particularly the youth, women of low socioeconomic status, and women living in rural areas.^[12] Furthermore, similar to previous studies, the reasons for the low rate of knowledge and awareness about EC include medical reasons (fear of side effects) and religious concerns.^[5-7]

The need for EC among those who claimed to know about EC is high. Seven out of 10 women who knew about EC did not receive sufficient information and suggested that it should be advertised. Furthermore, half of those who knew about EC claimed that it was not readily available without prescription from a pharmacy. Again, this issue of availability and advertisement of EC depend on the regulations set by the Saudi government as well as very limited choices for women, particularly on the use of EC. The consequence would be the use of other alternatives, such as herbal medicines and remedies, that may be more harmful or dangerous. In fact, many Saudi women still resort to alternative medicine or herbal remedies instead of medical treatment.^[13]

The prospects of “good use” of EC among Saudi women are promising because the significant majority of women (8 out of 10 women who claimed to know about EC) are not shy to ask for it. They are willing to freely discuss the use of EC with their partners and know when not to use EC, particularly in cases where medical concerns could complicate its use.

Similar to other previous studies, the knowledge and awareness of EC among our surveyed participants were significantly better among younger women, educated women, working women, and women who have had multiple births. Younger women tend to have access to information because they use the internet and social media more frequently compared with older women, and younger Saudi women have become more driven to educate themselves and be professional. Working women and women with a higher socioeconomic status also tend to plan their pregnancies more often compared with women who do not work and are housewives.^[5-8,14] However, a limitation to this study is

that it only reflects the knowledge and awareness of married Saudi women and does not reflect the overall knowledge and awareness of women of childbearing age.

Conclusion

The knowledge, awareness, and use of EC among Saudi women remains low, but a positive attitude for future use of EC exists. There is a need for health institutions to boost their health information campaigns to widen the scope and reach women, particularly those of low socioeconomic status, less educated women, and housewives to explain what EC is, its availability, and its proper use.

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Conflicts of interest

There are no conflicts of interest.

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