



CODEN [USA]: IAJPBB

ISSN : 2349-7750

INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

<https://doi.org/10.5281/zenodo.6672187>

Available online at: <http://www.iajps.com>

Research Article

AWARENESS AND KNOWLEDGE OF EMERGENCY CONTRACEPTION AMONG ADULT MARRIED WOMEN ATTENDING PHCS IN TAIF CITY, SAUDI ARABIA, 2020

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Article Received: May 2022

Accepted: May2022

Published: June 2022

Abstract:

*This study aims to assess the Awareness and knowledge of Emergency contraception among adult married women attending PHCCs in Taif City. Methods: A cross-sectional study design was adapted for this study. The study population were married women attending primary health care clinics of childbearing age between 18 and 45 years, Taif, Saudi Arabia. The study excluded unmarried women, married women their age less than 18 or more than 45, and those who refused to participate. A multistage random sampling technique was used as a sampling technique. Data was entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Chi-square test for inferential analysis. Results were considered significant if $p < 0.05$. **Results:** The study included 250 participants who were aged between 20 and 45 years as 40.4% of whom were aged between 30 and 40 years. The majority of participants were married (87.6%), Saudi (97.2%), had offspring (87.2%), and had university education or higher (69.6%). Nearly half (52%) of respondents knew that it is possible to prevent unwanted pregnancy after having unprotected sex. Average knowledge score was 28.1%, and only 10.4% of respondents scored more than 60%. There is a significant relationship between knowledge level and age ($p=0.000$), number of offspring ($p=0.000$), educational level ($p=0.000$), employment status ($p=0.000$), and monthly family income ($p=0.000$). **Conclusion:** Our study found that the majority of participants had poor knowledge about emergency contraception. Women aged 20 to 30 had better knowledge (27.1%), as did those with postgraduate education (44.2%), employed (21.7%), and a family monthly income of more than 10000 SAR (27.3%). We recommend emphases to conduct awareness campaigns and promotion of emergency contraception among Saudi women.*

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Please cite this article in press Wjood Abdullah Altalhi et al, Awareness And Knowledge Of Emergency Contraception Among Adult Married Women Attending PHC'S In Taif City, Saudi Arabia, 2020., Indo Am. J. P. Sci, 2022; 09(6).

INTRODUCTION:

There are several causes for unintended pregnancies, one of the most important tools that can help in preventing them is the timely use of emergency contraception (EC).⁽¹⁾

Emergency contraception may be known as postcoital use of a medication or a device as an emergency to prevent pregnancy, which is safe and viable. Emergency contraception (EC) can assume a fundamental role in preventing unintended pregnancies.⁽²⁾

Unplanned and unwanted pregnancy is a common medical issue worldwide. Around 79 million unintended pregnancies happen around the world every year. It results from ineffective use, high misunderstand of contraceptives, and sparse information about EC that end in termination of pregnancy. Emergency contraceptive pills work by delaying ovulation (the release of an egg during the monthly cycle). If fertilization and implantation have already happened, ECPs will not interrupt the pregnancy.^(3,4,5)

Various types of emergency contraception are available, including the use of post-coital insertion of an intrauterine device, combination estrogen, and progestin pills, and progestin alone pill. The well-known techniques are taking two doses of combined estrogen and progestin pill (Yuzpe method) with efficacies of 57% or two doses of 0.75-mg levonorgestrel (progestin alone) 12 hours after unprotected intercourse with efficacies of 85% or copper-T intrauterine device (IUD) can be inserted up to five days after unprotected intercourse with efficacies 99%. These various type with different dosage needs a different number of the tablet to be effective, and because of that, it's difficult to understand and use by the women.⁽⁶⁾

Any woman or girl of reproductive age may need emergency contraception to avoid an unwanted pregnancy. There are no absolute medical contraindications to the use of emergency contraception. There are no age limits for the use of emergency contraception. Eligibility criteria for general use of a copper IUD also apply for use of a copper IUD for emergency purposes. The most common contraindications for oral EC are ongoing pregnancy (not because of teratogenicity, but simply because if one is pregnant, there is no need for these medications), hypersensitivity to any product component, and undiagnosed abnormal vaginal bleeding.⁽⁷⁾

To use EC, women need to be equipped with knowledge about the various methods and how they can have access to them. Great variability in the knowledge and use of EC exists around the world. In a multicounty analysis of Knowledge and use of emergency contraception that was conducted in 45 countries. 80% of the countries studied, of sexually active women aged 14–49 years had ever used EC.⁽⁸⁾

After searching previous literature that assessed EC knowledge⁽⁹⁻¹⁷⁾ we found that there is a lack of research about the knowledge and awareness regarding EC in Taif City, so we aimed to cover this gap. This study aims to assess the Awareness and knowledge of Emergency contraception among adult married women attending PHCCs in Taif City.

Study objectives**General objective**

Assessment of the awareness and knowledge of Emergency contraception among adult married women attending PHCCs in Taif City, Saudi Arabia.

Specific objective

- (1) To assess the awareness and knowledge of Emergency contraception among adult married women attending PHCCs in Taif City, Saudi Arabia.
- (2) To assess prior utilization of emergency contraceptives amongst adult married women attending PHCCs in Taif City, Saudi Arabia.
- (3) To assess the association between EC awareness and knowledge to socio-demographic status of adult married females.

METHODOLOGY:**Study area and setting**

"Taif" is a city in the "Mecca" Province of Saudi Arabia. It lies at an altitude of 1,879m on the slopes of "Sarawat" Mountains. It has a population of about 1,200,000.⁽¹⁸⁾ There are 19 primary healthcare centers (PHCCs) inside the Taif city and distributed on four administrative sectors.⁽¹⁹⁾

Study design

An analytical cross-sectional study.

Study population

Adult married women attending primary health care clinics of childbearing age between 18 and 45 years, Taif, Saudi Arabia.

Inclusion criteria

Adult married women between 18 and 45 years.

Exclusion criteria

- Unmarried women.
- Married women their age less than 18 or more than 45
- Refused participants.

Sample size

Based on a study conducted in Riyadh the prevalence of knowledge among married females regarding emergency contraceptives is 16.7% with a margin of error of 5 %, and a 95% confidence interval the minimum calculated sample size using Epi Info 7 software is 214 married females. This sample was increased to 250.

Sampling techniques

A multistage random sampling technique was used where; Taif city has 19 PHCCs affiliated to MOH, at the first stage, 4 centers were selected, randomly. In the second stage, the females who fulfill inclusion criteria were selected by systematic random sampling technique (every 2nd women). The sample populations was distributed over the selected centers, proportionally according to the number of attendants.

Data collection tool

Data collection was done through a valid interview questionnaire which has been adapted from a study that has been conducted in the Riyadh region. ⁽²⁰⁾

This questionnaire collected the following data:

- 1) Socio-demographic characteristic include:
 - 1.1. Age.
 - 1.2. Marital status which will include married and not married.
 - 1.3. Level of education which will include different degrees of education as primary school, high school, graduate and more.
 - 1.4. Occupation which will include housewives or others.
 - 1.5. Income which will include the income less than SR 5000, In between SR5000-10,000 or more than SR10, 000.
 - 1.6. Number of the children
- 2) Awareness and Knowledge:

The awareness and knowledge component of the questionnaire were inquired by asking the participants if there is anything can prevent pregnancy after unprotected sex (IF THE ANSWER IS YES: take the morning after pill, take high dose /extra/ several birth control pills, use emergency contraception, have an IUD inserted, take birth control pill, have an abortion, pray, herbal remedies and others) and the correct timing of EC (pills or IUD). Subject were also asked if EC reduces the chance of pregnancy by up to 75%, would you still

use it to prevent pregnancy by responding likely, somewhat likely and not at all. In addition the participants were asked to identify the source of knowledge about EC (Magazine, Friend, Family member, TV).

Study variables

Dependent variable: Awareness and knowledge of emergency contraceptives.

Independent variable: These include socio-demographic variables such as age, education level, and a number of children.

Data management and analysis

Data was entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 26. We used descriptive analysis to present the data and Chi-square test for inferential analysis. Results were considered significant if $p < 0.05$.

Pilot study

A pilot study was performed using 20 adult married female to test the questionnaire and inform any necessary changes or misconceptions based on an assessment of their feedback. The pilot study established that the questionnaire required about 15 minutes to complete.

Ethical considerations

Permission from the Joint Program of Family Medicine to conduct the research was obtained. Individual written consent was filled by participants in the questionnaire. Approval by the research and ethical committee at PHC centers was obtained. Confidentiality was maintained through all the research steps.

RESULTS:

Table 1 shows that participants were aged between 20 and 45 years, where 40.4% of whom were aged between 30 and 40 years. The majority of participants were married (87.6%), Saudi (97.2%), had offspring (87.2%), and had university education or higher (69.6%).

Knowledge and awareness assessment items are shown in table 2. Nearly half (52%) of respondents knew that it is possible to prevent unwanted pregnancy after having unprotected sex. Taking the after-morning pill and using IUD was considered as an emergency contraception by 40.8% and 34%, respectively. Only 29.2% and 6% knew the best time and the maximum time to use the morning after pill, respectively. Similarly, only 17.6% knew the

maximum time to insert an IUD for emergency contraception use. Doctors and pharmacists were the source of knowledge for 30.8% of respondents. Average knowledge score was 28.1%, and only 10.4% of respondents scored more than 60%.

Table 3 shows the attitude and practice of respondents towards emergency contraception. Less than half (44%) reported previous use of emergency contraception, nearly half of whom used the morning after pill (19.2% of total). Among respondents, 64% believe that emergency contraception should be promoted in the society, 43.6% believe that it should be available without prescription, 71.2% wouldn't feel shy or ashamed to buy it, 68% believe that it

should be decided to use it by both partners, and 58.8% would use it.

Knowledge level was cross-tabulated with sociodemographic factors in table 4 as it shows that there is a significant association between knowledge level and age ($p=0.000$), number of offspring ($p=0.000$), educational level ($p=0.000$), working status ($p=0.000$), and family monthly income ($p=0.000$). Better knowledge was evident among women aged 20 – 30 (27.1%), participants who had postgraduate education (44.2%), working (21.7%), whose family monthly income is more than 10000 SAR (27.3%).

Table 1: Sociodemographic characters of participating women (n=250).

Parameter	Frequency (%)	
Age, y	20 -	59 (23.6%)
	30 -	101 (40.4%)
	40 - 45	90 (36%)
Number of offspring	1 to 3	117 (46.8%)
	4 or more	101 (40.4%)
	No offspring	32 (12.8%)
Educational level	Intermediate education	13 (5.2%)
	Secondary education	63 (25.2%)
	Undergraduate program	131 (52.4%)
	Postgraduate education	43 (17.2%)
Working status	Working	115 (46%)
	Not working	135 (54%)
Family monthly income, SAR	Less than 5000	96 (38.4%)
	5000to 10000	88 (35.2%)
	More than 10000	66 (26.4%)
Nationality	Saudi	243 (97.2%)
	Non-Saudi	7 (2.8%)

Table 2: Knowledge and awareness of women about emergency contraception (n=250).

Parameter	Frequency (%)	
After having unprotected sex, is there a way to prevent unwanted pregnancy?	Yes	130 (52%)
	No	22 (8.8%)
	I don't know	98 (39.2%)
If yes, what is that prevention method (multiple selection)?	Taking extra doses of regular OCPs	52 (20.8%)
	Taking the after morning pill	102 (40.8%)
	Herbs	49 (19.6%)
	IUD	85 (34%)
	Abortion	16 (6.4%)
	Praying	18 (7.2%)
	Others	24 (9.6%)
Best time to take the morning after pill	Within 1 day	73 (29.2%)
	Within 2 days	14 (5.6%)
	Within 3 days	9 (3.6%)
	I don't know	154 (61.6%)
Maximum time to take the morning after pill	One day	59 (23.6%)
	Two days	25 (10%)
	Three days	15 (6%)
	Four days	1 (0.4%)
	I don't know	150 (60%)
The morning after pill causes abortion	Yes	27 (10.8%)
	No	43 (17.2%)
	I don't know	180 (72%)
Maximum time to insert the IUD after unprotected sex	Five days	44 (17.6%)
	Ten days	12 (4.8%)
	I don't know	194 (77.6%)
Source of information about emergency contraception	Family	24 (9.6%)
	Friends	40 (16%)
	Doctors and pharmacists	77 (30.8%)
	TV	7 (2.8%)
	Journals and newspapers	22 (8.8%)
	I don't know about emergency contraception	80 (32%)
Knowledge score, % (mean±SD)	28.1±25.6	
Knowledge level	Poor knowledge (≤60%)	224 (89.6%)
	Good knowledge (>60%)	26 (10.4%)

Table 3: Attitude and practice of women towards emergency contraception (n=250).

Parameter	Frequency (%)	
Previous use of emergency contraception	Yes	110 (44%)
	No	140 (56%)
If yes, which method did you use?	No previous use	140 (56%)
	Morning after pill	48 (19.2%)
	IUD	47 (18.8%)
	Others	15 (6%)
Would you use emergency contraception knowing that it is effective in 75% of times?	Yes	147 (58.8%)
	No	32 (12.8%)
	Maybe	71 (28.4%)
Should emergency contraception be more promoted in the society?	Yes	160 (64%)
	No	27 (10.8%)
	Maybe	63 (25.2%)
Should emergency contraception be available without prescription?	Yes	109 (43.6%)
	No	93 (37.2%)
	Maybe	48 (19.2%)
Do you feel shy or ashamed buying emergency contraception products?	Yes	22 (8.8%)
	No	178 (71.2%)
	Maybe	50 (20%)
Who should decide on the use of emergency contraception	Wife	80 (32%)
	Both husband and wife	170 (68%)
Reasons I wouldn't use emergency contraception	Religious reasons	60 (24%)
	Medical reasons	108 (43.2%)
	Financial reasons	22 (8.8%)
	Difficult to use	60 (24%)
Current use of contraception method	I don't use any method	125 (50%)
	Permanent contraception method	37 (14.8%)
	Temporary contraception method	88 (35.2%)
Last visit to physician for family planning	Never	57 (22.8%)
	Within the last year	51 (20.4%)
	Within the last 3 years	69 (27.6%)
	More than 3 years	73 (29.2%)

Table 4: Emergency contraception knowledge in association with sociodemographic factors (n=250).

	Parameter	Good knowledge	Poor knowledge	P-value
Age, y	20 -	16 (27.1%)	43 (72.9%)	0.000
	30 -	10 (9.9%)	91 (90.1%)	
	40 - 45	0 (0%)	90 (100%)	
Number of offspring	1 to 3	19 (16.2%)	98 (83.8%)	0.000
	4 or more	1 (1%)	100 (99%)	
	No offspring	6 (18.8%)	26 (81.3%)	
Educational level	Intermediate education	0 (0%)	13 (100%)	0.000
	Secondary education	0 (0%)	63 (100%)	
	Undergraduate program	7 (5.3%)	124 (94.7%)	
	Postgraduate education	19 (44.2%)	24 (55.8%)	
Working status	Working	25 (21.7%)	90 (78.3%)	0.000
	Not working	1 (0.7%)	134 (99.3%)	
Family monthly income, SAR	Less than 5000	7 (7.3%)	89 (92.7%)	0.000
	5000to 10000	1 (1.1%)	87 (98.9%)	
	More than 10000	18 (27.3%)	48 (72.7%)	
Nationality	Saudi	26 (10.7%)	217 (89.3%)	0.361
	Non-Saudi	0 (0%)	7 (100%)	

DISCUSSION:

Whilst emergency contraception is not advised as a routine family planning tool, it is a good approach for reducing the risk of unwanted pregnancies following unprotected sexual intercourse.⁽²¹⁾ When barrier measures fail, such as condoms slipping and breaking, or when sexual intercourse is unplanned, emergency contraception comes in handy.⁽²²⁾

We conducted a cross-sectional study that included 250 Saudi women aged between 20 and 45 years. Despite the fact that half of our respondents know that unwanted pregnancies are preventable after unprotected sex, our study found poor knowledge levels among respondents as only 10.4% had good knowledge. This is lower than the proportions reported by university students in Hong Kong (70%)⁽²³⁾ and Jamaica (84%).⁽²⁴⁾ This might be because to a lack of sexuality health education promotion and EC availability in Saudi Arabia. Our results are, however, comparable to South Africa's (42%)⁽²⁵⁾, Uganda's (45.1%)⁽²⁶⁾, and Nigeria's (48%) reports.⁽²⁷⁾

A self-administered questionnaire was used to assess sexual experiences and emergency contraceptive usage among 424 female university students in Ethiopia. According to the survey, 49.8% of respondents had a high level of knowledge of EC and a good attitude toward it (47.6%), and 44.4% of sexually active respondents had used EC at least once after unprotected sexual intercourse.⁽¹⁴⁾

Although those who had a basic understanding of EC lacked in-depth knowledge of the regimen, how it is administered, and its efficacy in decreasing the risk of conception. Less than a third (29.2%) of our respondents recognised the best time of pill administration following unprotected sexual intercourse, which is lower than the South African figure (42%).⁽²⁵⁾

The most reported source of knowledge in our study was physicians and pharmacists, yet knowledge levels are very low. This could denote a communication dysfunction between women and their healthcare providers.

Our findings differ significantly from those of nations with a school sex education programme, where 95% of Finnish high school students⁽²⁸⁾ and 98% of Princeton University students had sufficient knowledge of EC.⁽²⁹⁾ The lack of knowledge in this study can underline that it may be due to the absence of integrated sexuality educational programs or promotion of emergency contraceptive services.

CONCLUSION:

Our study found that the majority of participants had poor knowledge about emergency contraception. Women aged 20 to 30 had better knowledge (27.1%), as did those with postgraduate education (44.2%), employed (21.7%), and a family monthly income of more than 10000 SAR (27.3%). We recommend emphases to conduct awareness campaigns and promotion of emergency contraception among Saudi

women.

REFERENCES :

- Seetharaman S, Yen S, Ammerman SD. Improving adolescent knowledge of emergency contraception: challenges and solutions. *Open Access J Contracept*. 2016 Nov 22;7:161-173. doi: 10.2147/OAJC.S97075. PMID: 29386948; PMCID: PMC5683156.
- Glasier A. Emergency postcoital contraception, *New England Journal of Medicine*. 1997;p.337:1058-64.
- Saleem S, Fikree FF. The quest for small family size among Pakistani women--is the voluntary termination of pregnancy a matter of choice or necessity? *J Pak Med Assoc*. 2015;55(7):288-91.
- Marzieh N, Abdolrasool A, Safiyeh A-M. The burden of abortion: induced and spontaneous. *Arch Iran Med* 2006;9:39-45. -
- Emergency Contraception (for Teens) - Nemours KidsHealth. (2022, January 1). Emergency Contraception (for Teens) - Nemours KidsHealth; kidshealth.org. <https://kidshealth.org/en/teens/contraception-emergency.html>
- La Valleur J. Emergency contraception. *Obstet Gynecol Clin North Am* 2000;27:817-39.
- WHO. (2021, November 9). Emergency Contraception; www.who.int. www.who.int/news-room/fact-sheets/detail/emergency-contraception
- Palermo T, Bleck J, Westley E. Knowledge and use of emergency contraception: a multicountry analysis. *Int Perspect Sex Reprod Health*. 2014;40(2):79-86.
- Alharbi M, Almujiil A, Alreshid F, Kutbi E. Knowledge and attitude about emergency contraception among Saudi women of childbearing age. *J Fam Med Prim Care*. 2019;8(1):44.
- Abraham D, Welu G, Berwo M, Gebretsadik M, Tsegay T, Gebreheat G, et al. Knowledge of and Utilization of Emergency Contraceptive and Its Associated Factors among Women Seeking Induced Abortion in Public Hospitals, Eastern Tigray, Ethiopia, 2017: A Cross-Sectional Study. *Biomed Res Int*. 2019;2019.
- Roshi D, Italia S, Burazeri G, Brand H. Prevalence and Correlates of Emergency Contraceptive Use in Transitional Albania. *Gesundheitswes (Bundesverband der Ärzte des Offentl Gesundheitsdienstes)*. 2019 Jul;81(7):e127-32.
- Jiménez-Iglesias A, Moreno C, García-Moya I, Rivera F. Prevalence of emergency contraceptive pill use among Spanish adolescent girls and their family and psychological profiles. *BMC Womens Health*. 2018 May;18(1):67.
- Karim S, Irfan F, Rowais D, Zahrani B, Qureshi R, Qadrah B. Emergency contraception: Awareness, attitudes, and barriers of Saudi Arabian Women. *Pakistan J Med Sci*. 2015 Nov 1;31:1500-5.
- Mishore KM, Woldemariam AD, Huluka SA. Emergency Contraceptives: Knowledge and Practice towards Its Use among Ethiopian Female College Graduating Students. *Int J Reprod Med*. 2019 Jan 1;2019:1-8.
- Najafi F, Rahman HA, Hanafiah M, Momtaz YA, Ahmad Z. Emergency contraception: knowledge, attitudes and practices among married Malay women staff at a public university in Malaysia. *Southeast Asian J Trop Med Public Health*. 2012 Nov;43(6):1512-20.
- Chin-Quee D, L'Engle K, Otterness C, Mercer S, Chen M. Repeat use of emergency contraceptive pills in urban Kenya and Nigeria. *Int Perspect Sex Reprod Health*. 2014 Sep;40(3):127-34.
- Irfan F, Karim SI, Hashmi S, Ali S, Ali SA. Knowledge of emergency contraception among women of childbearing age at a teaching hospital of Karachi. *J Pak Med Assoc*. 2009 Apr;59(4):235-40.
- General Census of Population and Housing, 1436 H, Central Department of Statistics and Information, 2015.
- Kamal TA, Alsofiyani AA, Alghamdi NKH, Al-Rajhi AEH. Factors influencing violence experienced by medical staff in primary health care centers, Taif city. *Int J Adv Res* 2016; 4(10): 1640-1651.
- Karim SI, Irfan F, Al Rowais N, Al Zahrani B, Qureshi R, Al Qadrah BH. Emergency contraception: Awareness, attitudes and barriers of Saudi Arabian Women. *Pakistan journal of medical sciences*. 2015 Nov;31(6):1500.
- WHO, author. A tabulation of Available data on the frequency and mortality of unsafe abortion. 2nd Edition. Vol. 14. Geneva: WHO division family health and safe mother hood program; 1994. pp. 243-247.
- Barbara E, Rogers W, Rochal, Widad K. Maternal mortality in Addis Ababa. *Ethiopia studies in family planning*. 1986;17(6/1):288-301.
- Lee S, Wai M, Lai L, Ho P. Women's knowledge and attitudes towards emergency contraception in Hong Kong: Questionnaire survey. *Hong Kong Medical Journal*. 1999;5:349-352.
- Sorhaindo A, Backer D, Fletcher H. Emergency contraception among university students in Kingston Jamaica. Survey on Knowledge,

- Attitude and practice of emergency contraception. *BMJ*. 2002;64(4):261–268.
25. Mabatho M, Jomifier A, Margaret LM, Magos B, Cathyc KZ, Chelsea M. Emergency contraception utilization by young south African women. *Social Science and Medicine*. 2004;8(2):137–144.
 26. Josaphat B, Florence M, Elisabeth F, Kristin G. Emergency contraception and fertility awareness among University students in Kampala, Uganda. *East African Medical Journal*. 2006;6(4):194–200.
 27. Michael E, Azikon P, Okonta B. Knowledge and perception of emergency contraception among female Nigerian under graduates. *International family Practice Perspectives*. 2006;35(4):201–208.
 28. Elise K, Andres V, Matt R, Arja R, Heini H. Questionnaire survey of the use of emergency contraception among teenagers in Finland. *BMJ*. 1999;319(4):91–92.
 29. Harper C, Ellertson CE. The emergency contraception pill. a survey of knowledge and attitude among students at Princeton University. *Am J Obstet Gynecol*. 1995;173(5):1438–1445.