



## KNOWLEDGE, ATTITUDE, AND PRACTICE TOWARDS EMERGENCY CONTRACEPTION AMONG PRIMARY HEALTH CARE PHYSICIANS IN AL-AHSA CITY, SAUDI ARABIA, 2020-2021

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### ABSTRACT

**Background:** Emergency contraception (EC) points to all measures or technique (drug or device) of contraception that are used after intercourse and before implantation. Emergency contraception is not commonly used worldwide, and it is an issue whether it should be available over the counter. The awareness, knowledge, and use of emergency contraception among Saudi women are very low, and the most common barrier for not using this method was concerns about possible health effects. To correctly prescribe the emergency contraceptives by the physicians at their primary health care centers, it's important to assess their awareness, knowledge, attitude and practice towards the emergency contraception. The present study was designed to assess the knowledge, attitude, and practice of emergency contraception among family physicians in primary health care centers in Al-Ahsa.

**Material and methods:** This was a descriptive cross-sectional study conducted at 67 primary health care centers in Al-Ahsa region of Saudi Arabia. All 320 physicians working at the ministry of health primary health care centers was the study population. The sample size was calculated using the Epi info software with 95% of CI, which were 175. All physicians of the study sample were distributed with predesigned, pretested, self-administered multiple response questionnaires with a mixture of closed, open ended and questions with 5 point likert scale graded response. Basic questions were added to measure the level of participants' awareness, attitude, and practices towards Emergency Contraception. The collected data from the survey were entered, managed, and computed by using SPSS software 21 version. Data analysis was done by using inferential and descriptive statistics. The descriptive statistics like mean, standard deviation, frequency distribution and percentage were used to assess the demographic variables. The comparison between the awareness was performed using chi square test. A p-value cut off point of 0.05 at 95% CI will be used to determine statistical significance. Data were collected by online Google form.

**Results:** A total of 113 physicians out of 175 responded the questionnaires. More than half of the sample were males (54%) and slightly more than three quarter of them were in the age group 20-40 (79%). More than two thirds were Saudi (77.9%) and the rest were non Saudi (22.1%). Most of the participants (87.6%) were married. More than half of the sample (56.5%) had never prescribed Emergency Contraceptive (EC) before, (26.5%) rarely prescribed, (3.5%) and (11%) always and sometimes prescribed respectively. The results of the current study revealed that around one-thirds (27.4%) of the studied participants had a Higher level of Knowledge about EC, while around two-thirds of the participants had Moderate level knowledge and Lower-level knowledge with equal percent (36.3%), and more than half of the study (53.1%) had a positive attitude towards EC. A statistically significant difference was shown between the different types of ranks in the medical profession and the level of knowledge (p=0.0005). Among the studied sample, most of the consultants, specialists, and Senior Residents have moderate level of knowledge, while most of the junior residents (11.5%) have higher level of knowledge about EC. A statistically significant results was also obtained between the highest qualification achieved and the level of knowledge about EC (p=0.009). There were clearly substantial variations in attitudes toward emergency contraception between the age groups of 20-40 years, 41 and above (p = 0.021), suggesting that positive attitudes increased with age and attitude (p-value 0.091 respectively). But a statistically significant difference was shown between the years of work experience and attitude toward EC (p=0.047). Thirty one percent of the Saudi physicians had moderate level of knowledge and almost forty percent of them had negative attitude toward EC.

**Conclusion:** The present study found that primary care physicians had a moderate level of knowledge and a positive attitude toward prescribing EC; however, due to a lack of training, they are unable to practice effectively. As a result, comprehensive trainings and the development of local protocols are required.

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### INTRODUCTION

Undesired pregnancy may result from unprotected intercourse, noncompliance to contraceptive measures or methods failure. Emergency contraception (EC) points to all measures or technique (drug or device) of contraception that are used after intercourse and before implantation.<sup>[1]</sup> Ladies who have had recent unprotected intercourse, or those who have had a disappointment of another contraceptive measure, are potential candidates for this intervention. It is planned to incidental alternately back-up use. Not similarly as an essential preventative measure for schedule use.<sup>[2]</sup> Modern emergency contraception roots extend back to the mid-1960s, when Post-coital high dose estrogen administration to prevent unintended pregnancy was used as a procedure for rape victims.<sup>[3]</sup> In the

early 1970s, a combined estrogen-progestin level was made possible by the high-dose estrogen regimens. Canadian physicians Albert Yuzpe and his colleagues began studying this combination therapy in 1972, inspired by their discovery that a single dose of 100 mcg of estrogen combined with 1.0 mg of progestin dl-norgestrel leads to endometrial changes that are inconsistent with implantation.<sup>[4-6]</sup> In Late 1970s, physicians started offering the copper IUD as the only non-hormonal emergency contraception method. This method induces endometrial alterations that prevent implantation; additionally, the emitted copper ions tend to be potentially embryo toxic.<sup>[6]</sup> Emergency contraception is not commonly used worldwide, and it is an issue whether it should be available over the counter.<sup>[7]</sup> It became well known in the Arab region over the past years.<sup>[8]</sup> And it has proven to be an effective method to

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prevent unplanned pregnancies, although, health care professionals' knowledge and use of these methods is notably low.<sup>[9]</sup> The awareness, knowledge, and use of emergency contraception among Saudi women is very low, and the most common barrier for not using this method was concerns about possible health effects. And the least reported source of information about emergency contraceptive methods was Health care workers.<sup>[10,11]</sup> To date, there is no study in our region on primary health care physicians for the knowledge, attitude and practice regarding emergency contraception, so our study was designed to assess the knowledge, attitude, and practice of emergency contraception among family physicians in primary health care centers in Al-hasa.

The aim of this study is to assess the Knowledge, attitude, and practice of Primary Health Care Physicians in Al-Ahsa, Saudi Arabia towards emergency contraception (EC) and statistical association between Health Care Physicians knowledge level and emergency contraceptive prescribing.

## MATERIAL AND METHODS

This was a descriptive cross-sectional study conducted at 67 primary health care centers in Al-Ahsa region of Saudi Arabia. The study population included primary health care physicians who worked at primary health care centers in Al-Ahsa region irrespective of nationality, gender, age or type of education. All 320 physicians working at the ministry of health primary health care centers was the study population. With the presumption (based on previous study of the same type) that 70 percent (with the range of 75%) of the physicians were aware about the emergency contraception and had good knowledge about emergency contraception with a total population of 320 physicians, the sample size was calculated using the Epi info software with 95% of CI which was 175. All physicians of the study sample were distributed with predesigned, pretested, self-administered multiple response questionnaires with a mixture of closed, open ended and questions with 5 point likert scale graded response. Basic questions were added to measure the level of participants' awareness, attitude, and practices towards Emergency Contraception. The questionnaire was developed by the researcher and supervisor after reviewing the previous similar researches. The questionnaires consisted of four sections, 1st one included questions regarding personal data (gender, age, occupation level, marital status etc.). And the remaining three sections included questions about emergency contraception's knowledge, practice, and attitude. There were 10 questions each in awareness, knowledge and attitude sections. The answers were graded in 5 point likert scale and close ended questions. Correct answer was awarded with 1 score while incorrect with zero score. The score ranged from 0 to 10, the higher the score the higher the knowledge and positive attitude towards emergency contraception. By using the mean as a cutoff point, the level of knowledge and attitude were measured. The participants were classified as having lower knowledge, moderate knowledge and higher knowledge on the score range of 0 to 10 points. A higher knowledge score range was between 8 to 10 points while moderate knowledge range was between 6 to 8 and lower knowledge range was with score less than 6. Similarly the participants were classified as having negative attitude and positive attitude on the score range of 0 to 10 points. A positive attitude score range was between 6 to 10 points while lower than 6 was considered as negative

attitude towards emergency contraception. For the convenience of calculation agree and strongly agree were converged to agree score while neutral, disagree and strongly disagree were converted into disagree. The collected data from the survey were entered, managed, and computed by using SPSS software 21 version. Data analysis was done by using inferential and descriptive statistics. The descriptive statistics like mean, standard deviation, frequency distribution and percentage were used to assess the demographic variables. The comparison between the awareness was performed using chi square test. A p-value cut off point of 0.05 at 95% CI was used to determine statistical significance. Data were collected by online Google form. The study was conducted between December 2020 to February 2021 by using the random sampling technique.

## RESULTS

A total of 113 physicians out of 175 responded the questionnaires making a response rate of 65%. More than half of the sample were males (54%) and slightly more than three quarter of them were in the age group 20-40 (79%). More than two thirds were Saudi (77.9%) and the rest were non Saudi (22.1%). Most of the participants (87.6%) were married. More than half of the sample (56.5%) had never prescribed Emergency Contraceptive (EC) before, (26.5%) rarely prescribed, (3.5%) and (11%) always and sometimes prescribed respectively. The details of the demographic characteristics are shown in table 1.

**Table No.1** Demographic characteristics (N=113)

Characteristics	Frequency (%)
<b>Age (mean±SD) 34.876±8.41</b>	
<b>Age Groups</b>	
20 - 40 years	90 (79.6)
41 and above	23 (20.4)
<b>Gender</b>	
Male	61 (54)
Female	52 (46)
<b>Nationality</b>	
Saudi	88 (77.9)
Non- Saudi	25 (22.1)
<b>Marital status</b>	
Single	13 (11.5)
Married	88 (87.6)
Widow	01 (0.9)
<b>Years of clinical experience (mean±SD) 08.38±7.84</b>	
0 - 17 years	97 (85.8)
18 and above	16 (14.2)
<b>If you have prescribed it before, how often do you prescribe it?</b>	
Always	04 (3.5)
Very often	01 (0.9)
Sometimes	13 (11.5)
Rarely	30 (26.5)
Never	64 (56.6)

The vast majority of the participants (92%) heard about EC. The most heard method was IUCD copper method (92.9%) followed by levonorgestrel method (83.2%) (Plan B method) and levonorgestrel split method (66.4%). The least heard method was ulipristal method (34.5%). Most available method was levonorgestrel method (24.8%) while least available one was ulipristal? method. The details of the awareness questionnaires on EC are shown in table 2.

**Table No. 2** showing the response on awareness questions about hearing and availability of Emergency Contraception

Hearing about	Yes	No	Don't know
Emergency contraception.	104 (92)	06 (5.3)	03 (2.7)
Yuzpe method.	57 (50.4)	47 (41.6)	09 (8.0)
Levonorgestrel method (plan B method).	94 (83.2)	18 (15.9)	01(0.9)
Levonorgestrel method (split method).	75 (66.4)	30 (26.5)	08 (7.1)
Ulipristal method.	39 (34.5)	65 (57.5)	09 (8.0)
IUCD copper method.	105(92.9)	05 (4.4)	03 (2.7)
Availability	Availability	Non-Availability	Don't know
Yuzpe method.	11 (9.7)	69 (61.1)	33 (29.2)
Levonorgestrel method.	28 (24.8)	62 (54.9)	23 (20.4)
Ulipristal method.	03 (2.7)	77 (68.1)	33 (29.2)
IUCD copper method.	13 (11.5)	78 (69)	22 (19.5)

Less than half of the participants (48.7%) agreed with the statement that Pregnancy test is necessary before prescribing EC and sixty nine percent of the participants did not agree with the statement that Per-vaginal (PV) examination is necessary before prescribing EC. A vast majority of the participants (85.5%) either disagreed or did not know the fact that EC acts as an abortifacient. Only 21.3% of the participants either disagreed or did not know regarding the facts that EC methods interfered with fertilization and prevents implantation. However only twenty two percent of the participant agreed with the statement that EC use discouraged the use of regular contraceptive methods. Majority of the participants (54.9%) did not know that Plan B® usually (>50% of the time) makes a woman to vomit. an overwhelming majority of participants correctly disagreed with the statement that Use of ECPs would have a negative effect on a woman's future fertility. More than half (55%) of participants knew the correct time of taking EC. Majority of the participants knew the indications of EC. The details of the response on the knowledge questionnaires of EC are shown in table 3.

**Table No. 3** Responses on Knowledge questionnaires about emergency contraception

Knowledge	Yes N (%)	No N (%)	Did not know N (%)
Pregnancy test is necessary before prescribing EC.	55 (48.7)	51 (45.1)	07 (6.2)
Per-vaginal examination is necessary before prescribing EC.	20 (17.7)	78 (69.0)	15 (13.3)
EC acts as an abortifacient.	13 (11.5)	67 (59.3)	33 (29.2)
EC methods interfere with fertilization and prevent implantation.	89 (78.8)	15 (13.3)	9 (8.0)
EC use discourages the use of regular contraceptive methods.	25 (22.1)	62 (54.9)	26 (23.0)
Plan B® usually (>50% of the time) makes a woman vomit.	35 (31.0)	16 (14.2)	62 (54.9)
Use of ECPs will have a negative effect on a woman's future fertility.	10 (8.8)	91 (80.5)	12 (10.6)
ECPs can be effective if taken up to 5 days (120 hours) after unprotected intercourse.	63 (55.8)	39 (34.5)	11 (9.7)
Repeated use of EC would pose health risks	31 (27.4)	43 (38.1)	39 (34.5)
Indications for EC:			
• Condom breakage.	102(90.3)	09 (8.0)	02 (1.8)
• Rape.	88 (77.9)	05 (4.4)	20 (17.7)
• Missed contraceptive pills.	80 (70.8)	27 (23.9)	06 (5.3)
• Unprotected sexual intercourse.	106(93.8)	05 (4.4)	02 (1.8)
• Unintended pregnancy.	57 (50.4)	48 (42.5)	08 (7.1)

A vast majority of the participants (87.6%) agreed with the statement of highest positive attitude that a CME program on the topic of emergency contraception would be helpful. Similarly eighty one percent of the participants agreed that the benefits of emergency contraception (EC) outweigh the risks. More than seventy percent of the participants disagreed with the statement that they felt uncomfortable prescribing EC for

religions/ ethical reasons. Similarly more than sixty percent of the participants disagreed with the statement that they would not prescribe EC if I knew in advance that patient would elect to continue pregnancy if EC failed. More than seventy percent of the participants supported the use of emergency contraception. Similarly more than sixty percent of the participants supported the view that It would be good professional practice to provide emergency contraceptive pills for patients in advance of need but majority of them (57.5%) did not support that EC should be available over-the-counter, without a prescription. As far as the information regarding the use of emergency contraception is concerned, more than fifty percent of the participants did not agree with the statement that emergency contraception should be more widely advertised. On the statement that EC is appropriate for discussion at routine consultation, sixty percent of the participants agreed but only thirty three percent of the participants were satisfied with their current knowledge of emergency contraception. The detail of the responses on attitude questions is shown in table 4.

**Table No. 4** Showing the response on Attitude questionnaires towards EC.

Attitude items:	SA N (%)	A N (%)	N N (%)	DA N (%)	SDA N (%)
The benefits of emergency contraception (EC) outweigh the risks.	36 (31.9)	56 (49.6)	20 (17.7)	01 (0.9)	00
I feel uncomfortable prescribing EC for religious/ethical reasons.	14(12.4)	19 (16.8)	40(35.4)	22(19.5)	18 (15.9)
I would not prescribe EC if I knew in advance that patient would elect to continue pregnancy if EC failed	20(17.7)	25(22.1)	48(42.5)	16(14.2)	04 (3.5)
I support the use of emergency contraception	34(30.8)	45(39.8)	29(25.7)	03(2.7)	02(1.8)
It would be good professional practice to provide emergency contraceptive pills for patients in advance of need.	34(30.1)	40(35.4)	22(19.5)	10 (8.8)	07 (6.2)
EC should be available over-the-counter, without a prescription	28 (24.8)	20(17.7)	27(23.9)	18(15.9)	20(17.7)
Emergency contraception should be more widely advertised	24 (21.2)	30(26.5)	36(31.9)	9 (8.0)	14 (12.4)
EC is appropriate for discussion at routine consultation.	34 (30.1)	34 (30.1)	30(26.5)	9 (8.0)	6 (5.3)
I'm satisfied with my current knowledge of emergency contraception	15 (13.3)	25(22.1)	38(33.6)	22(19.5)	13(11.5)
A CME program on the topic of emergency contraception would be helpful	65 (57.5)	30 (26.5)	15(13.3)	03 (2.7)	00

Key:

Strongly agree = SA Agree = A Neutral = N Disagree = DA Strongly disagree = SDA

The majority of the studied participants (78.8%) had never prescribed EC before and was not trained on it (64.6%). Also, most of the sample (73.5%) did not offer any information about EC to women seeking contraception, although more than half of the sample (53.1%) was provided EC for future use. Fifty-four percent (54.0%) have referred to a gynecologist for EC prescription, while 28.1% were not. The details of the responses on practice questionnaires are shown in table 5.

**Table No. 5** Response on the Practice questionnaires towards EC.

Practices regarding emergency contraception	Yes N (%)	No N (%)
Have you ever prescribed an EC?	24 (21.2)	89 (78.8)
Are you trained on prescribing EC?	40 (35.4)	73 (64.6)
Do you provide information on EC to women asking for contraceptive method?	83 (73.5)	30 (26.5)
Do you sometimes provide EC for future use?	53 (46.9)	60 (53.1)
Would you refer a case to a gynecologist for the prescription of EC?	61 (54.0)	52 (46.0)

The results of the current study revealed that around one-thirds (27.4%) of the studied participants had a Higher level of Knowledge about EC, while around two-thirds of the participants had Moderate level knowledge and Lower-level knowledge with equal percent (36.3%). and more than half of

the study (53.1%) had a positive attitude towards EC. The detail data are shown in table six.

**Table No. 6** Showing Level of knowledge & Attitude (N=113)

Level of knowledge	Frequency (%)
Lower level of Knowledge	41(36.3)
Moderate level of knowledge	41(36.3)
Higher level of Knowledge	31(27.4)
Attitude towards EC	Frequency (%)
Positive	60 (53.1)
Negative	53 (46.9)

There was no statistically significant difference in the level of Knowledge by gender (p = 0.930), marital status (p=0.45), age groups (p= 0.072), nationality (p=0.062) and between work experiences (p=0.062). A statistically significant difference was shown between the different types of ranks in the medical profession and the level of knowledge (p=0.0005). Among the studied sample, most of the consultants, specialists, and Senior Residents have moderate level of knowledge, while most of the junior residents (11.5%) have higher level of knowledge about EC. A statistically significant results was also obtained between the highest qualification achieved and the level of knowledge about EC (p=0.009), with a moderate level of knowledge among the majority of those with national qualification (36.3%), higher level of knowledge among most of the international but not western qualified participants (3.5%), and lower level of knowledge among those with the western qualification (6.2%).

with age and attitude (p- value 0.091 respectively). But a statistically significant difference was shown between the years of work experience and attitude toward EC (p=0.047). 43.8% of those with 0-17 years of work experience showed negative attitude, and 42.0% showed positive attitude. Whereas most of those with 18 years of experience showed positive attitude toward EC. Among the Saudis, 31.0% had moderate level of knowledge and a negative attitude toward EC (39.8%). Whereas the majority of non-Saudis (12.4%) had lower level of knowledge and positive attitude toward EC (15.0%). The details of the significance of socio economic group of the participants with the level of knowledge and attitude towards the EC is shown in table 7.

## DISCUSSION

The prescription of an emergency contraception is not common in our primary health centers; more than half of our participants showed positive attitude towards the use of EC and support the use of it. The present study revealed that most of the respondents had low and moderate level of knowledge about emergency contraception. The same result was reported recently by a similar study done in Riyadh.<sup>[12]</sup> The majority of participants (93%) heard about EC in the present study. A high level of awareness was also found in a similar study Conducted Kampala, Uganda.<sup>[13]</sup> In contrast, one Canadian study has shown that 29% of participants knew the right answer, more than half of 63% knew that the EC period is 120 hour limit in our study.<sup>[14]</sup>

**Table No. 7** Comparison of socio demographic characteristics of the participants with the knowledge and attitude towards EC. (N=113)

	Lower level of Knowledge N (%)	Moderate level of knowledge N (%)	Higher level of Knowledge N (%)	Total N (%)	P-value
<b>Gender</b>					
Male	22 (36.1)	23 (37.7)	16 (26.2)	61 (100)	0.930
Female	19(36.5)	18(34.6)	15(28.8)	52(100)	
<b>Marital status</b>					
Unmarried	4(30.8)	4(30.8)	5(38.5)	13(100)	0.45
Married	37(37.4)	37(37.4)	25(25.3)	99(100)	
Widow	0	0	1(100)	1(100)	
<b>Age in years</b>					
20-40 years	29(32.2)	34(37.8)	27(30.0)	90(100)	0.072
41 years and>	12(52.2)	7 (30.4)	4(17.4)	23(100)	
<b>Nationality</b>					
Saudi	27(30.7)	35(39.8)	26(29.5)	88(100)	.062
Non Saudi	14(56.0)	6(24.0)	5(20)	25(100)	
<b>Experience in year</b>					
0-17 years	31(32.3)	36(37.5)	29(30.2)	96(100)	0.062
18 and above	10(62.2)	4(25.0)	2(12.5)	16(100)	
	Attitude				
	Positive N (%)	Negative N (%)	Total N (%)		P-value
<b>Gender</b>					
Male	35 (57.4)	26 (42.6)	61 (100)		0.320
Female	25 (48.1)	27 (51.9)	52 (100)		
<b>Age</b>					
20-40 years	43 (47.8)	47 (52.2)	90 (100)		0.021
41 and above	17 (73.9)	6 (26.1)	23 (100)		
<b>Marital status</b>					
Unmarried	4(30.8)	9(69.2)	13(100)		0.155
Married	55(55.6)	44(44.4)	99(100)		
Widow	1(100)	0	1(100)		
<b>Nationality</b>					
Saudi	43 (48.9)	45 (51.1)	88 (100)		0.091
Non-Saudi	17 (68.0)	8 (32)	25 (100)		
<b>Experience</b>					
0 - 17 years	47 (49.0)	49 (51.0)	96 (100)		0.047
18 and above	12 (75)	4 (25)	16 (100)		

However there were clearly substantial variations in attitudes toward emergency contraception between the age groups of 20-40 years, 41 and above (p = 0.021), suggesting that positive attitudes increased

There is a misconception that emergency contraception (EC) acts as an abortifacient in 11.5% of our participants, and 29.2% did not know, but more than half (54.9%) had

the correct answer which is in contrast to one Pakistani study which found that only thirty percent of the study subjects answered that emergency contraception is not an abortifacient.<sup>[15]</sup> A lack of knowledge will have an impact on emergency contraception prescription. Such findings indicate that more attention should be paid to this topic in our primary health care centers, and our physicians' knowledge of it should be expanded in order for them to be prepared to provide information and prescribe it to patients. A similar study published in 2011, though an older study shows that 60% of their respondents were prescribed emergency contraception.<sup>[16]</sup>

However, in our study, nearly 80% of participants had ever prescribed emergency contraception, and 64.6 percent said they had not been trained to do so. The findings are consistent with one study conducted in the United States, which found that emergency contraception was rarely prescribed by health care providers, family practitioners, and emergency physicians.<sup>[17]</sup> Although our primary health centers, prescribing emergency contraception is not commonly practiced, over half of our participants have shown positive attitude to EC use, support its use and provide women who are looking for contraceptive methods with information on this. This is similar to Chung's statement that health providers are positive in prescribing patients emergency contraception.<sup>[18]</sup>

Most of our study participants believed that during routine consultations it was a good practice to talk about emergency contraception. In contrast to the study of Abdulghani and colleagues in Pakistan, where more than half of the participants considered that emergency contraception was not an appropriate topic to discuss at routine consultation.<sup>[19]</sup> Furthermore, for religious reasons most of the participants were not uncomfortable, which coincided with previous research findings. In contrast to what was reported by Dyna E Syahlul on research done among Indonesian health care providers, where the majority of participants did not support EC being available without a prescription, the majority of participants in our study believe EC should be offered over-the-counter without a prescription.<sup>[20]</sup>

Though the results are encouraging and point us in the direction of developing recommendations for improving primary health care physicians' knowledge and practices in prescribing emergency contraception, they are also limited by the fact that the questionnaire was self-administered, which makes it prone to bias. Furthermore, the low response rate and narrow scope of the study make generalizing the findings difficult. As a result, it is suggested that more large-scale studies be conducted to ascertain the current situation among all primary health care physicians in the kingdom.

## CONCLUSION

The present study found that primary care physicians had a moderate level of knowledge and a positive attitude toward prescribing EC; however, due to a lack of training, they are unable to practice effectively. As a result, comprehensive trainings and the development of local protocols are required.

## References

1. Fauzia Nausheen, Javed Iqbal, Aarif Tajammul Khan, Shahida Sheikh, Mamoon Akbar. Emergency contraception: knowledge, attitudes and practices of general practitioner.
2. Daniels K, Jones J, Abma J. Use of emergency contraception among women aged 15-44: United States, 2006-2010. NCHS Data Brief No. 112. 2013.
3. A.A. Haspels, "Emergency Contraception: A Review," *Contraception*, 50:101-108, 1994.
4. A.A. Yuzpe and W.J. Lancee, "Ethinylestradiol and dl-Norgestrel as a Postcoital Contraceptive," *Fertility and Sterility*, 28:932-936, 1977.
5. A.A. Yuzpe *et al.*, "Post Coital Contraception - A Pilot Study," *Journal of Reproductive Medicine*, 13:53-58, 1974.
6. P.F.A. Van Look and H. von Hertzen, *History and Efficacy of Emergency Contraception 1993*, op. cit.
7. Grimes DA, Raymond EG, Scott Jones B. Emergency contraception over-the-counter: the medical and legal imperatives. *Obstet Gynecol*. 2001;98(1):151-5.
8. Shaaban OM, Fathalla MM, Shahin AY, Nasr A (2011) Emergency contraception in the context of marriage in Upper Egypt. *Int J Gynecology Obstet* 112: 195-199.
9. Obionu CN. Knowledge, perception and prescribing attitudes of emergency contraception among health care professionals and service providers. *Trop J Obstet Gynecol* 1998;15:36-8.
10. Alharbi MS, Almuji AS, Alreshid FF, Kutbi EH. Knowledge and attitude about emergency contraception among Saudi women of childbearing age. *J Family Med Prim Care*. 2019 Jan;8(1):44-48.
11. Karim SI, Irfan F, Rowais NA, Zahrani BA, Qureshi R, Qadrah BH. Emergency contraception: Awareness, attitudes and barriers of Saudi Arabian Women. *Pak J Med Sci*. 2015 Nov-Dec;31(6):1500-5.
12. Najla Aodh, Mashael Al-Bargawi, Mostafa Kofi, Turkiyah Al-Otaibi. Level of Awareness about Emergency Contraception among Primary Health Care Centers Physicians in Prince Sultan Military Medical City, Riyadh, Saudi Arabia, 2019. *Archives of Women Health and Care*. 2019 August; 2(4): 1-9. 23.
13. Byamugisha JK, Mirembe FM, Faxelid E, Gemzell-Danielsson K. Knowledge, attitudes and prescribing pattern of emergency contraceptives by health care workers in Kampala, Uganda. *Acta Obstet Gynecol Scand*. 2007;86(9):1111-6.
14. Langille DB, Allen M, Whelan AM. Emergency contraception: knowledge and attitudes of Nova Scotian family physicians. *Can Fam Physician*. 2012 May;58(5):548-54.
15. Alam K, Snover A, Sultana N, Munir TA, Shah SS. Emergency contraception: knowledge, attitude and practices among doctors of a tertiary care hospital. *J Ayub Med Coll Abbottabad*. 2013 Jan-Jun;25(1-2):141-4.

16. Oriji VK, Omietimi JE. Knowledge, attitude, and practice of emergency contraception among medical doctors in Port Harcourt. Niger J ClinPract. 2011 Oct-Dec;14(4):428-31
17. Grossman RA, Grossman BD. How frequently is emergency contraception prescribed? Fam Plann Perspect 1994; 26:270-1.
18. Chung-Park M, Emergency Contraception Knowledge, Attitudes, Practices, and Barriers among Providers at a Military Treatment Facility, Military Medicine. 2008 March; 173(3): 305–312.
19. Abdulghani HM, Karim SI, Irfan F. Emergency contraception: knowledge and attitudes of family physicians of a teaching hospital, Karachi, Pakistan. J Health PopulNutr 2009; 27(3): 339-44.
20. Syahlul DE, Amir LH. Do Indonesian medical practitioners approve the availability of emergency contraception over-the-counter? A survey of general practitioners and obstetricians in Jakarta. BMC Womens Health. 2005 Mar 22; 5(1):3.

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