Knowledge about Emergency Contraception Pills among Primary Health Care Doctors in Baghdad\Al-Karkh Sector

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Abstract

Background: Unintended pregnancy is associated with an increased risk of problems especially when woman is not in her optimal health for childbearing. The problem of unintended pregnancy and its complication can be reduced by the use of emergency contraception.

Objective: To explore the knowledge of health care doctors in Baghdad/Al Karkh, Iraq regarding emergency contraception pills.

Participants and Method: A structured questionnaire was distributed to a total of 390 primary health care doctors (obstetrics and gynecology specialists, general practitioners and family physicians). The questionnaire contained two main domains: demographic characteristics and knowledge about EC.

Results: The majority of the sample were females 287 (73.6%), and the general practitioner (41.8%), family medicine specialists (34.6%). about one third of them were in age 40–49 years old, 72.1% of the physicians have no training about emergency contraceptive..

Conclusion: A deficit in knowledge shown by health care physicians lead to an insufficient use of emergency contraceptive pills methods.

***Key words**: Knowledge, Emergency Contraception, PHC physicians.*

Introduction

Emergency contraception (EC) refers to methods of contraception that can be used to prevent pregnancy after sexual intercourse. These are recommended for use within 5 days but are more effective the sooner they are used after the act of intercourse, EC pills prevent pregnancy by preventing or delaying ovulation and they do not induce an abortion. EC cannot interrupt an established pregnancy or harm a developing embryo[(1)]. Unintended pregnancy is associated with an increased risk of problems for the mom and baby. If a pregnancy is not planned before conception, a woman may not be in optimal health for childbearing[(2)]. The problem of unintended pregnancy and its complication can be reduced by the use of emergency contraception (EC) [(3)]. Unprotected intercourse that demand the use of emergency contraception include failure of barrier methods such as slippage, breakage or misuse of condom, sexual assaults, failed coitus interrupts, two or more consecutive missed oral contraceptive pills, or simply because intercourse was unexpected and therefore contraception had not been used[(4)].

Emergency Contraceptive pills can serve as a backup method and can reduce the number of unintended pregnancies and abortions. There are three types of ECPs: combined ECPs containing both estrogen and progestin, progestin-only ECPs, and ECPs containing an antiprogestin (either Mifepristone or Ulipristal Acetate). Progestin-only ECPs have now largely replaced the older combined ECPs because they are more effective and cause fewer side effects. Although this therapy is commonly known as the morning-after pill, the term is misleading; ECPs may be initiated sooner than the morning after-immediately after unprotected intercourse-or later-for at least 120 hours after unprotected intercourse. Combined ECPs contain the hormones estrogen and progestin. The hormones that have been studied extensively in clinical trials of ECPs and found to be highly effective and well

tolerated[5-7]. The antiprogestin mifepristone approved for use in many countries for early first trimester medication abortion and it is highly effective for use as emergency contraception, with few side effects (delayed menstruation following the administration of mifepristone is one notable side effect) [8].

The aim of the present study is to assess the knowledge about EC pills among healthcare physicians at Baghdad Al Karkh/Iraq

Participants and Method

A cross sectional survey was conducted among health care physicians in Baghdad Al Karkh District during the period from Nov 2017 to Mar 2018. The studied population included 390 physicians (Obstetricians & Gynecologists, General Practitioner, Family physicians) in primary health care (PHC) centers. They were recruited by convenient selection method. The questionnaires were delivered to participant personally by the researcher himself at their work place to ensure completing the questionnaire instantaneously. Anonymity of participants was insured.

Questionnaire: Structured questionnaire were developed as per objectives of the study, this questionnaire was adopted from study made in 2005 for Exploring Knowledge, Attitudes and Practices of EC in PHC provider Tribhuvan University with modification[9]. Each participant was asked to complete the questionnaire which consist of two elements; Sociodemographic information "gender, age, specialty, marital status, years of experiences and formal training" and EC knowledge in PHC "17 main questions and 6 sub questions".

Statistical Analysis

The data were coded and each questionnaire assigned with a serial identifying number then entered by the researcher into the computer using Statistical Package for Social Sciences (SPSS) version 24. Data were presented in simple measures of frequency, percentage, mean, standard deviation, and range (minimum-maximum values). The significance of difference of different percentages (qualitative data) were tested using Pearson Chi-square test with application of Yate's correction or Fisher Exact test whenever applicable. Statistical significance was considered whenever the P value was equal or less than 0.05.

Table 1: The distribution of PHC physician related to sociodemographic characteristics (n=390).

		No	%
Gender	Male	103	26.4
	Female	287	73.6
Specialty	General practitioner	163	41.8
	Family Medicine	135	34.6
	Obstetric & Gynecologists	36	9.2
	Others (Pediatrics, ENT, Rotator…etc.)	56	14.4
Age (years)	20---29	36	9.2
	30---39	107	27.4
	40---49	132	33.8
	50---59	95	24.4
	=>60	20	5.2
Marital status	Unmarried	70	17.9
	Married	320	82.1
Years of working experience (years)	0-9	108	27.7
	10-19	114	29.2
	=>20	168	43.1

Table 2: The distribution of PHC physician according to their knowledge about EC (n=390)

		No	%
Have you ever hear about EC		320	82.1
The source of information	College study	212	66.2
	Mass media	13	4.1
	Continuous medical education in PHCC	8	2.5
	MOH	77	24.1
	Others	10	3.1
Know the name of EC (n=320)		244	76.4
Method is: Same as combined oral contraception pills (COCs) and/or high dose of hormones (Ulipristal acetate (UPA))		283	88.4
Intra uterine device (Cupper T)		160	53.7
Have EC in the PHC center		84	26.2

Table 3: The distribution of PHC physician according to knowledge about mechanism of action, effectiveness, indication, safety, and testing for pregnancy before EC (n=320)

		No	%
Know mechanism of action		217	67.9
The mechanism of Action	Prevent implantation	55	25.3
	Prevent implantation & ovulation	68	31.3
	Induces abortion	81	37.4
	Do not know	13	6.0
Effectiveness of EC preventing pregnancy	Very good (>95%)	78	24.4
	Good (75-90%)	198	61.8
	Fair (50-74%)	17	5.4
	Don't know	27	8.5
Safety profile of EC	Very safe	22	6.9
	Safe	249	77.9
	Cause health problems	35	10.8
	Not sure	14	4.4
Know the indication of EC		252	78.7
When contraception method has been used		144	57.3
Condom rupture		227	90.2
Condom used perfectly		143	57.0
Condom slippage		206	81.8
Correct coitus interruption		121	48.2

Cont... **Table 3: The distribution of PHC physician according to knowledge about mechanism of action, effectiveness, indication, safety, and testing for pregnancy before EC (n=320)**

Miscalculation of the periodic absent method		154	61.2
IUCD expulsions		168	66.8
When a woman had been a victim of sexual assault		204	81.1
Need to do pregnancy test before EC	Yes	101	31.5
	No	132	41.3
	Don't know	87	27.2

Results

Table 1 presents the demographic characteristics of the health care providers who completed the study questionnaire; the majority of them were females 287 (73.6%) while the rest were males (26.4%). Among them were general practitioner (41.8%), family medicine specialists (34.6%), obstetric & gynecological specialists (9.2%) and from other specialties (Pediatric, ENT, rotator … etc.) (14.4%), Regarding their age, about one third of them were in age 40–49 years old (33.8%), 27.4% were 30-39 years, 24.4% were 50-59 years, and 9.2% were 20– 29 years while about 5.2% were 60 years and above. Most of the PHC physician were married (82.1%) with working experience less than 10 years in 27.7% of them, 10–19 years (29.2%) and 20 years and above representing about half of them (43.1%).

The term EC was known by 82.1% of physician with their source of knowledge from college study (66.2%), MOH (24.1%), mass media (4.1%), continuous medical education in PHCC (2.5%) and others (brochures, reading, journals, internet e-mails….etc.) in 3.1% (Table 2).

Among 320 PHC physician who heard about EC 244 (76.4%) knew the trade name of the available types of EC. The majority of those 320 PHC physician mention that EC were same as COC pills and/or high dose of hormones "Ulipristal acetate" (UPA) (88.4%)

Table 3 reveals that 67.9% of PHC physician know the mechanism of action of EC as inducing abortion (37.4%), preventing implantation and ovulation (31.3%), only preventing implantation (25.3%), or no exact mechanism is known (6.0%).

Among 320 PHC physician, 41.3% of them think that the client no need to do pregnancy test before take EC and the rest either they trust their clients and consider need for pregnancy test before EC. More than half of the PHC physician (61.8%) consider the effectiveness of EC in preventing pregnancy is good, 24.4% as very good, while the rest either did not know (8.5%) or assume it as fair (5.4%). Regarding safety, more than two-thirds of physician (77.9%) believed that EC have a safe profile (Table 3).

Table 3 also demonstrates that larger number of PHC physician have known the right indication of EC (78.7%) as follow, condom rupture 90.2%, condom slippage 81.8%, for woman had been a victim of sexual assault 81.1%, IUCD expulsions 66.8%, miscalculation of the periodic absent method 61.2%, while those physician who mention the wrong indication was as follow, when contraception method has been used 57.3%, condom used perfectly 57.0%, correct coitus interruption 48.2%.

Discussion

Family planning programs in Iraq are unfortunately limited and based only on little consultancy clinics within PHCCs and the private clinics[10]. The use of contraceptive methods by Iraqi women reached a rate of 56.1%[11]. Present study showed that 82.1% of PHC physicians heard about emergency contraception (EC). This finding is lower than results of Batur *et al*[12] web based survey on 3260 practicing physicians in USA which revealed that 95% of physicians heard about levonorgestrel EC. However, rate of hearing about EC by our study is higher than that reported by Mandiracioglu *et al*[13] study in Turkey of 53.7% of PHC workers who heard about EC. Differences in hearing about EC proportions between studies might be attributed to discrepancy in quality of medical education and training of physicians between different countries. Current study revealed that 76.4% of PHC physicians know the name of EC. This EC knowledge rate is close to knowledge rate of family physician working in PHC reported by

Abdulghani *et al*[14] study in Pakistan of 71% and that of health care workers reported by Zeteroğlu *et al*[15] Study in Turkey of 74%.

However, knowledge rate of EC in present study is higher than results of Harrison cross sectional study in Nigeria which stated that only 45% of medical doctors could correctly defined the emergency contraception[16]. On other hand, knowledge of current study PHC physicians regarding EC is lower than that of 87% knowledge rate of physicians reported by Lo *et al*[17] study in Hong Kong. These differences in knowledge regarding EC between studies may be due to different reasons like differences in governmental interest in family planning programs, information given as part of the medical curriculum lectures in medical colleges or during postgraduate training and continuing medical education. Most of PHC physicians (88.4%) had knowledge in EC method of combined oral contraception pills (COCs) and/or high dose of hormones (Ulipristal acetate (UPA)). This finding is higher than results of Oriji and Omietimi study in Nigeria[18] which reported that although, 98% of medical doctors had good knowledge in EC, 58% of them could not recognize the EC types. More than half (63.8%) of PHC physicians believed that combined pills is the best choice. Current study showed that 67.9% of PHC physicians knew the emergency contraception mechanism of action and 37.4% of them thought that mechanism by induced abortion. This proportion of knowledge is higher than results of Ebuehi O *et al*study in Nigeria which found that 48.8% of health care providers have good knowledge in EC mechanism of action. Knowing mechanism of EC action is essential for physicians practice, effectiveness and dealing with complications[19].

This study showed that 24.4% of PHC physicians believed that EC is very good and 61.8% believed that it is good. These findings are close to Results of Lawrence *et al*[20] study in USA which revealed that 89% of physicians believed that EC and access to EC would lower the rate of intended pregnancy. Knowing emergency contraception indications was observed among 78.7% of PHC physicians in present study. The highest knowledge regarding the indications was for condom rupture (90.2%) and lowest for correct coitus interruption (48.2%). These findings are close to results of Fok study in USA which reported that 74.7% of physicians had proper knowledge regarding the indications of EC[21].

In conclusion, a clear deficiency in PHC physicians' knowledge about EC pills methods which leads to an insufficient use of EC pills methods.

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

Conflict of Interest: The authors declare that they have no conflict of interest.

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