
GYNAECOLOGY

Knowledge, Attitude and Practice regarding Emergency Contraceptive Pills among Health Care Providers

Porntita Lersbuasin, MD*,
Somsook Santibenchakul, MD*,
Unnop Jaisamrarn, MD, MHS*.

** Department of Obstetrics and Gynecology, Faculty of Medicine, King Chulalongkorn Memorial Hospital, Chulalongkorn University, Bangkok 10330, Thailand*

ABSTRACT

Objective: To examine the level of knowledge, attitude and practice about emergency contraceptive pills (ECPs) and related factors among health care providers.

Materials and Methods: Health care providers in at King Chulalongkorn Memorial Hospital were asked to answer self-administered questionnaire about ECPs. The questionnaire was divided into 4 domains which comprised of baseline characteristics, 10 multiple choice questions about the knowledge of ECPs which one point per one correct answer, 11 questions on attitude toward ECPs; health care provider's concern about safety and efficacy of ECPs, 12 questions on practice; proper patients to be prescribed, experience and obstacles on prescription. Validity of the questionnaire was assessed by 2 experts. Reliability of knowledge section was tested by Pearson Correlation with 0.75 as a result. For attitude and practice sections, Cronbach coefficient alpha was used to calculate the reliability. The results of Cronbach coefficient score were 0.73 and 0.78 on attitude and practice domains, respectively. If the result is above 0.7, the reliability is promising. The data was collected during October 2013 - May 2014.

Results: The overall knowledge mean score was 4.1. Fellows had the highest mean score of 5.3 while pharmacists had the lowest mean score of 3.1. Age and job category had an effect on the knowledge of ECPs ($p = 0.008$, $p < 0.001$). Concerning job category, the highest level of knowledge was found in fellows, followed by residents, nurses and pharmacists, consecutively. The age group with the highest level of knowledge was 31-40 years, which correlated with the age of these fellows. 36.9% of nurses expressed their concern on ECPs' effectiveness and safety while a lower number of pharmacists (18%) and fellows (8.2%) had a lower number of this concern. Job category had statistically significant association with a concern on ECPs ($p = 0.009$). Only 18.4% of doctors prescribed ECPs. Pharmacists gave advice on ECPs more often than nurses, residents and fellows.

Conclusions: Level of knowledge, attitude and practice on ECPs were different among health care provider groups according to medical status and role priority of their professionals. Factors affecting ECPs were knowledge, job category and age. While, factors that affected attitude were job category and knowledge. Factors affecting practicing were concern on ECPs effectiveness and safety.

Keywords: Emergency contraceptive pills, knowledge, attitude, practice

Correspondence to: Jaisamrarn U, Department of Obstetrics and Gynecology, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand
Phones: +66 2564288, +66 2564241, +66 2564219 E-mail: dr.unnop@yahoo.com, Unnop.J@chula.ac.th

Introduction

Unplanned pregnancy particularly in teenagers is becoming an important problem in many countries including Thailand. Even though the overall birthrate is dropping, teen births are on the rise. In Thailand Out of every 1,000 live births, 33.4 are from teen mothers aged 15-19⁽¹⁾. From an annual public health report between 2000 to 2011 shows the number of live births from Thai teenage mothers increased 43%⁽¹⁾. Moreover, 2011 report by the United Nations Population Fund (UNFPA) and Thailand's National and Economic and Social Development Board (NESDB) shows the number of women hospitalized in connection with abortions increased by over 16% between 1994 and 2009⁽²⁾. The consequences of unintended pregnancy are significant and can affect women and families in profound and irrevocable ways such as health, economic, social and cultural problems.

Emergency contraceptive pills (ECPs) may be used to prevent unwanted pregnancy, after unprotected sexual intercourse or failure of the use of contraceptive methods, and in case of being raped⁽³⁾.

Since 1985, ECPs have been marketed in Thailand⁽⁴⁾. However a survey in Bangkok revealed that ECPs service were low, including limited advice on ECPs due to inadequate knowledge and negative attitude of the providers⁽⁵⁾. It was stated by "Emergency contraception and future trend in Thailand" seminar conducted in Bangkok in 2000 that it was a poor attempt to improve the quality of supply and dissemination of information regarding ECPs⁽⁶⁾. The misconceptions of why and how to use it is a critical and important aspect of the use of this medication in Thailand. Multiple barriers to widespread use of ECPs still remain. ECPs are still commonly prescribed only for rape cases and are rarely available in family planning clinics and private clinics⁽⁷⁾.

Provider's attitude regarding ECPs is an important

factor to provide the service of ECPs. Adequate knowledge is important to correct the misunderstanding and may help to provide more information about this method to the clients.

The primary aim of this study was to examine the level of knowledge, attitude, and practice of ECPs among health care provider groups. The secondary aim was to determine factor related to the knowledge, attitude and practice of the ECPs of these providers.

Materials and Methods

This was a cross- sectional descriptive study carried out at King Chulalongkorn Memorial Hospital (KCMH) in Bangkok, Thailand. The study was approved by the Institutional Review Board, Faculty of Medicine, Chulalongkorn University. Informed consent was obtained from each participant before enrollment into the study.

Study population

Health care providers at KCMH who had an opportunity to provide contraceptive knowledge to their patients were selected and divided into four groups as following.

1. Fellows of Obstetrics and Gynecology, Pediatric, Internal Medicine, Family Medicine and Emergency Departments
2. Residents of Obstetrics and Gynecology, Pediatric, Internal Medicine, Family Medicine and Emergency Departments.
3. Nurses of at family planning clinic, emergency department, delivery room, gynecology clinic, postpartum and gynecology wards.
4. Pharmacists.

All health care providers, who worked at KCMH at the time of this study were recruited. The list of these providers was taken from human resources departments of Faculty of Medicine, Chulalongkorn University and

KCMH.

Among 590 providers in total, 357 were doctors, 140 were nurses and 94 were pharmacists.

Study instrument

Self-administered questionnaires were used for data collection. The questionnaire was modified from various documents with reference of family planning textbook^(8,9) and consultation with experts in family planning medicine.

The questionnaire comprised 4 sections: demographic data, 10 multiple choice questions about the knowledge of ECPs, which one point per one correct answer; dosage and duration of use, mechanism of action, indication, side effect and teratogenic effect, 11 multiple choice and open questions on attitude toward ECPs; health care provider's concern about safety and efficacy of ECPs, 12 multiple choice and open questions on practice; proper patients to be prescribed, experience and obstacles on prescription.

The constructed questionnaire was sent to two experts in family planning medicine to assess the content validity of the instrument. For knowledge section, test-retest analysis was leveraged in 10 health care providers including doctors, nurses and pharmacists at KCMH. The timing between test and retest questionnaires were 1 week. Reliability was tested by Pearson Correlation with 0.75 as a result. For attitude and practice sections, the same group of health care providers was asked to complete another questionnaire. Cronbach coefficient alpha was used to calculate the reliability. The results of Cronbach coefficient alpha score were 0.73 and 0.78 on attitude and practice domains, respectively. If the result is above 0.7, the reliability is promising.

Data collection

The data collection was done during October 2013 – May 2014. The questionnaires were sent to all the providers mentioned earlier for their answers. The completed questionnaires were then collected for the analysis.

Statistical analysis

Statistical analysis was performed using SPSS version 17. The data were analyzed by descriptive statistics including percentage, mean, median, standard deviation (SD), minimum, maximum. Chi square test was used to demonstrate the correlation of demographic data, knowledge, attitude and practice. $P < 0.05$ is considered to be statistical significant.

Result

From Table 1, a total number of 590 health care providers, which comprise of 357 doctors, 140 nurses, 93 pharmacists were invited to participate in our study. 413 providers (70%) agreed to complete the questionnaires. Response rates were 90.7%, 77.4% and 59.9% from nurses, pharmacists and doctors, respectively. Mean age of the respondents was 31.7 years with SD of 7.5.

Among participated doctors, Obstetrics and Gynecology residents had the highest response rate (100%), followed by Pediatric fellows (95.2%) and Obstetric and Gynecologic fellows (88.8%). The lowest response rate of 14.3 % was from Emergency Medicine residents. No response rate from Internal medicine fellow.

Table 1. Percentage of health care providers of different departments who responded to the questionnaire.

Job		Total (N)	Respondents (N)	Percent response (%)
Fellows	OB	18	16	88.9
	MED	42	0	0
	PED	21	20	95.2
Residents	OB	29	29	100
	MED	171	105	61.4
	PED	64	38	59.3
	Fammed	5	3	60.0
	ER	7	3	42.9
Total doctors		357	214	59.9
Nurses		140	127	90.7
Pharmacists		93	72	77.4
Total		590	413	70.0

Knowledge

Knowledge scores of each category of health care providers are shown in Table 2. Out of the total score of 10, fellows had the highest mean score of at 5.3 while pharmacists had the lowest mean score of 3.1.

Among doctors, Obstetrics and Gynecology fellows had the highest mean score of 6.3. Obstetrics and Gynecology residents, Family Medicine residents, Internal Medicine fellows, Pediatric fellows and residents had the mean score of 5.8, 5.6, 5.0, 4.6, 4.1 orderly. Internal Medicine residents had the lowest mean score

of 4.0 which was lower than the overall mean.

As shown in Table 2, factors affecting contraceptive knowledge were studied. Age and job category had an effect on the knowledge of ECPs. On the other hand, sex and frequency of providing contraceptive advice were not associated with the knowledge level. Concerning job category, the highest level of knowledge was found in fellows, followed by residents, nurses and pharmacists, consecutively. The age group with the highest level of knowledge was 31-40 years, which correlated with the age of these fellows.

Table 2. Association between knowledge score and variable factors.

Factors	Total (N)	Score Mean ± SD, (Minimum, Maximum)	Knowledge score		P
			≤ 5 No.(%)	> 5 No.(%)	
Job category					
Fellow	37	5.3±1.9 (3,10)	21 (56.8)	16 (43.2)	< 0.001
Resident	176	4.4±1.7 (1,9)	131 (74.4)	45 (25.6)	
Nurse	127	4.0±1.8 (1,9)	98 (77.2)	29 (22.8)	
Pharmacist	72	3.1±1.5 (1,6)	67 (93.1)	5 (6.9)	
Total	412	4.1±1.8 (1,10)	317 (76.9)	95 (23.1)	
Age(years)					
20-30	230	4.0±1.7 (1,9)	184 (80)	46 (20.0)	0.008
31-40	86	4.6±2.0 (1,10)	56 (65.1)	30 (34.9)	
41-50	33	3.8±1.5 (1,8)	30 (90.9)	3 (9.1)	
51-60	15	3.7±1.8 (2,7)	12 (80.0)	3 (20.0)	
Total	364*	4.1±1.8 (1,10)	282 (77.5)	82 (22.5)	
Sex					
Female	317	4.1±1.8 (1,10)	67 (77)	250 (76.9)	0.968
Male	95	4.2±1.8 (1,9)	20 (23)	75 (23.1)	
Total	412	4.1±1.8 (1,10)	87 (100)	325 (100)	
Frequency of providing contraceptive advice					
Always (100%)	48	4.2±2.0 (1,9)	34 (70.8)	14 (29.2)	0.324
> 50% of number of service	83	4.4±2.0 (1,10)	61 (73.5)	22 (26.5)	
< 50% of number of service	103	4.0±1.8 (1,9)	78 (75.7)	25 (24.3)	
When asked	150	4.0±1.6 (1,9)	124 (82.7)	26 (17.3)	
Never	26	4.3±1.8 (1,10)	19 (73.1)	7 (26.9)	
Total	410*	4.1±1.7 (1,10)	316 (77.1)	94 (22.9)	

(* Not all participants answered this question)

Table 3. Percentage of health care providers in different categories who gave correct answer to each knowledge question.

Knowledge questions	Fellow (%)*		Resident(%)				Nurse (%)	Pharmacist	Total
	OB	PED	OB	MED	PED	Fam Med	N=140	(%)	
	N=18	N=21	N=29	N=171	N=64	N=5		N=93	
Dosage and method of use	69.2	75	86.5	35.2	42.1	33.3	39.4	31.9	43.4
Duration of action	84.6	70	82.8	79	81.6	66.7	85	88.9	83
Mechanism of action	38.5	10	29.1	12.4	7.9	33.3	7.9	9.7	12.1
Teratogenic effect	84.6	45	62.1	42.9	44.5	100	49.6	23.6	72.1
Risk of ectopic pregnancy	7.7	20	17.2	20	36.8	33.3	26	13.9	21.8
Substitute with COC	84.6	90	93.1	90.5	97.4	100	85.8	98.6	90.5
Copper IUD use for emergency contraception	93.8	70	100	52.4	57.9	100	53.5	50	59

(OB = Obstetrics and Gynecology, PED = Pediatric, MED = Internal medicine, Fam Med= Family medicine, COC = combined oral contraceptive pills, IUD = intrauterine device), (*Internal medicine fellow were not shown data due to no response questionnaire)

90.5% of health care providers understood that combined oral contraceptive pills could not be replaced by ECPs. In contrast, there were only 12.1% of health care providers who correctly understood the mechanism of action of ECPs. (Table 3.)

The knowledge question with high correction rate (> 50%) were duration of action (83.0%) and teratogenicity (72.1%). More than half of the healthcare providers correctly understood that copper IUD can be used as emergency contraceptive method.

More than half of the Obstetrics and Gynecology doctors and Pediatric fellows were able to correctly identify that single dose of 1.5 mg levonogestrel or divided dose are equally effective. In contrast, less medical staffs working in other different fields had the knowledge of this single and split dosage.

Surprisingly, a number of pediatricians and pharmacists had a wrong concept on the teratogenicity of ECPs.

Attitude

From Fig. 1., if ECPs were to be prescribed, effectiveness, side effects, STDs prevention and regular contraceptive methods replacement were the issues of concern.

From Table 4. job category ,sex and knowledge score had statistically significant association with a concern on ECPs' effectiveness and safety ($p = 0.002$, $p = 0.004$, $p < 0.001$). 37.4% of nurses expressed their concern on ECPs' effectiveness and safety while a lower number of pharmacists (18.3%) and fellows (7.4%) had a lower number of this concern.

Level of knowledge was correlated well with the safety concern on ECPs. Healthcare providers who had the knowledge score of less than 5, had more concern.

24% of the healthcare providers perceived ECPs as a method of contraception when there are no other available methods. Another 83% perceived ECPs as a method to prevent unwanted pregnancy. More than half of each group of providers considered that ECPs should be available at hospitals, drug stores and private clinics. Another 15% considered that ECPs should be available at vending machine and supermarkets.

According to the questionnaire, more than half of healthcare providers wanted to learn more about the effectiveness, side effects, safety, mechanism of action and also other types of emergency contraceptive methods.

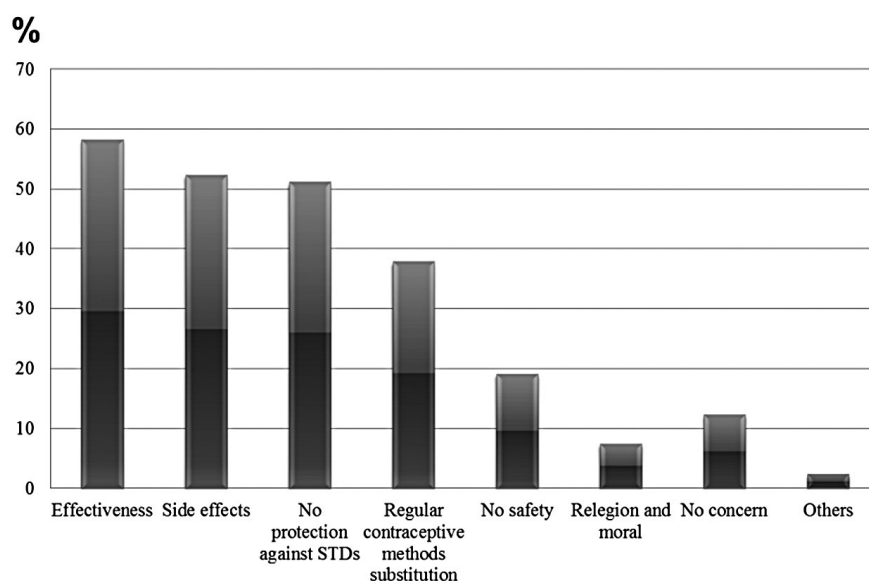


Fig 1. Percentage of participants who had issues of concern about ECPs.

Table 4. Association between concern on ECPs and variable factors.

Factors	Total (N)	Concern on Safety and ECPs' effectiveness		P
		Yes (N/%)	No (N/%)	
Job category				
Fellow	34	17 (7.4)	17 (9.7)	p = 0.002
Resident	176	85 (37)	91 (52)	
Nurse	123	86 (37.4)	37 (21.1)	
Pharmacist	72	42 (18.3)	30 (17.1)	
Total	405	230 (100)	175 (100)	
Age				
20-30	227	125 (54.3)	102 (58.6)	p = 0.249
31-40	130	72 (31.3)	58 (33.3)	
41-50	33	24 (10.4)	9 (5.2)	
51-60	14	9 (3.9)	5 (2.9)	
Total	404*	230 (100)	174 (100)	
Sex				
Male	86	37 (16.1)	49 (28)	p = 0.004
Female	319	193 (83.9)	126 (72)	
Total	405	230 (100)	175 (100)	
Knowledge score				
≤5	283	184 (80)	99 (56.6)	p < 0.001
>5	122	46 (20)	76 (43.4)	
Total	405	230 (111)	175 (100)	

(* Not all participants answered this question)

Practice

At KCMH, only 18.4% of doctor group used to prescribed ECPs to the patients (nurses and pharmacists could not prescribe drug in KCMH). In health care providers opinion, ECPs should be offered to only rape cases, adolescents and married women only, at a percentage of 82%, 46.4% and 11.9%, accordingly.

There were significantly different rate of ECPs prescription between Obstetrics and Gynecology doctors and non-Obstetrics and Gynecology doctors ($p < 0.001$). 50% of Obstetrics and Gynecology doctors and 18% of non-Obstetrics and Gynecology doctors used to prescribed ECPs.

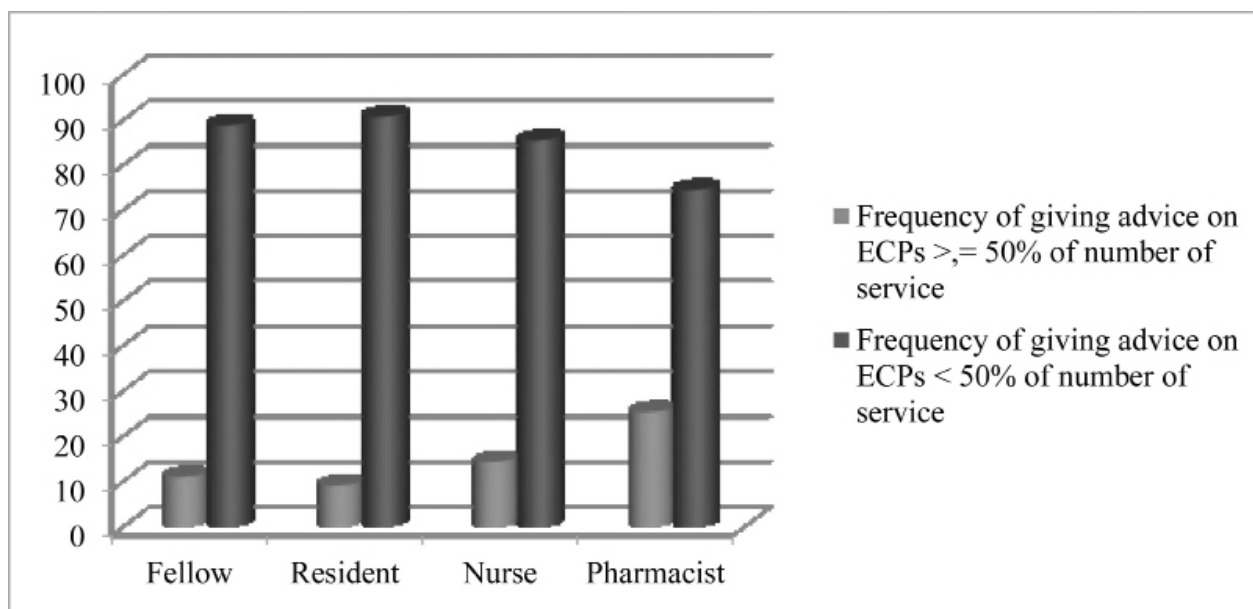


Fig. 2. Percentage of ECPs advice in each job categories.

From Fig. 2, 86.2% of health care providers gave advice on ECPs less than 50% of number of contraceptive advice service. Job category had an impact on ECPs advices. From our findings, pharmacists (25.4%) had the highest proportion to give the advices followed by nurses (14.4%), residents (11.1%) and fellows (9.2%), consecutively.

When discussing about contraceptive methods, 7% of participants always gave advice on ECPs, 49% advised if asked and 21% never advised. However, from our study the level of knowledge on ECPs was not associated with frequency of ECPs advice ($p = 0.324$).

More than 50% of healthcare providers perceived unawareness and embarrassment as a major obstacle to ECPs access. While, religion, legal and healthcare policy opposition were not believed to be one of the

major cause. Suggested methods to overcome these obstacles were information providing to general population and medical staffs and comprehensive ECPs training courses. The most effective information source for client were medical institution (84%), media such as radio, TV and newspapers (81.1%) and printed material (53.4%).

Discussion

There is an increasing trend toward unwanted pregnancy in Thailand. ECPs were one of the back-up methods which may help to decrease the rate of unwanted pregnancy. ECPs are considered as an effective contraceptive method. The effectiveness of this method ranges from 58% to 79% depending on the time used after unprotected intercourse⁽¹⁰⁾.

ECPs have been marketed in Thailand since 1985⁽³⁾. A survey in Bangkok revealed that ECPs service were low, including limited advice on ECPs due to inadequate knowledge and negative attitude of the providers. However knowledge, attitude and practice (KAP) regarding the use of ECPs among different health care professionals in Thailand has never been reported. From our study, health care providers' accurate knowledge on this method was still low. One study conducted in North India has shown that there were low level of knowledge, attitude and practice among health care providers both gynecologist and general practitioner⁽¹¹⁾. This emphasizes the importance of ECPs knowledge distribution not only to general population but also to medical staffs. Since this may deteriorate the number of unwanted pregnancy in the future. The correct knowledge on drug usage, mechanism of action and teratogenicity may help providers to prescribe this medication with ease. The information on side effects and ectopic pregnancy rate will help physicians to correctly advice their patients. This information should be provided by establishing comprehensive ECPs courses for medical staffs, drug label and media information for general population. ECPs should be easy to access and should be provided at general hospitals, clinics and drug stores.

The easiest way to make ECPs as one of the contraceptive choices, is to provide the correct knowledge for general population and importantly, medical staffs. Since our findings indicated that medical staffs had misunderstanding on the usage, effectiveness and side effects of ECPs. With this notion, we believe that providing information through short course training or media information will promote ECPs usage and eventually decrease the unwanted pregnancy rate in the future.

For attitude toward ECPs among health care providers in our study, there was a concern about the recommendation of ECPs in aspect of its safety and effectiveness. According to WHO-recommended levonorgestrel regimen, it is 52–94% effective in preventing pregnancy⁽¹²⁾. The regimen is more effective the sooner after intercourse it is taken. Moreover

levonorgestrel-alone emergency contraception pills are very safe and do not cause abortion or harm future fertility. Side-effects are uncommon and generally mild⁽¹²⁾. From our study, level of knowledge was correlated well with the safety concern on ECPs. Therefore information providing to health care provider could change their attitude toward ECPs.

Regarding the practice on ECPs, our study found that, only 18.4% of health care providers prescribed ECPs to the patients because in their opinion, ECPs should be offered to only particular cases. In our opinion low prescription rate was due to inadequate knowledge, having concern about ECPs and low client that have indication for ECPs used. Educating our health care providers may dispel some misconception about ECPs then they can convey accurate information to the patients to assist with their contraceptive decision making.

The strength of this study was the use of a reliable questionnaire which covered all aspects of knowledge, attitude and practice about ECPs. High response rate from the participants was another strength. However, This research had limitation. First, Doctor staffs were not included due to difficult to access. Second, nurses group could not divide into subcategories due to they always rotation to different ward. Third, this study was done in only one hospital, Its generalizability will be limited.

Conclusions

In conclusion, doctors had the highest level of ECPs knowledge followed by nurses and pharmacists. Nurses had the highest level of concern on safety and effectiveness of ECPs. Obstetrics and Gynecology doctors were more familiar with ECPs prescription comparing to doctors in other departments. Pharmacists had the highest rate of giving ECPs advice comparing to others. Factors affecting ECPs knowledge were job category and age. While, factors that affected attitude were job category and knowledge. Factors affecting practicing were concern on ECPs effectiveness and safety.

ความรู้ ทักษะคติ และการให้บริการยาเม็ดคุมกำเนิดฉุกเฉิน ในกลุ่มบุคลากรทางการแพทย์

พรทิศา เลิศบัวสิน, สมสุข สันติเบญจกุล, อรรณพ ใจสำราญ

วัตถุประสงค์ : เพื่อประเมินระดับความรู้ ทักษะคติ และการให้บริการยาเม็ดคุมกำเนิดฉุกเฉิน และเพื่อศึกษาปัจจัยที่มีผลต่อความรู้ ทักษะคติ และการให้บริการยาเม็ดคุมกำเนิดฉุกเฉินในกลุ่มบุคลากรทางการแพทย์

ระเบียบวิธีการวิจัย : บุคลากรทางการแพทย์โรงพยาบาลจุฬาลงกรณ์ที่มีคุณสมบัติตามเกณฑ์วิจัยได้รับแบบสอบถาม และตอบแบบสอบถาม ระหว่างเดือนตุลาคม 2556 - พฤษภาคม 2557 เพื่อทดสอบ ความรู้ ทักษะคติ และการให้บริการยาเม็ดคุมกำเนิดฉุกเฉิน โดยแบบสอบถามแบ่งออกเป็น 4 ส่วน ประกอบด้วย 1. คำถามพื้นฐานข้อมูลกลุ่มตัวอย่าง เช่น ตำแหน่งงาน เพศ อายุ 2. คำถามเพื่อวัดระดับความรู้ โดยเป็นคำถามแบบให้เลือกตอบ ตอบถูก 1 ข้อ เทากับ 1 คะแนน มีจำนวน 10 ข้อ 3. คำถามเพื่อประเมินทักษะคติ 11 ข้อ เช่น ถ้ามถึงเรื่องความกังวลในเรื่องประสิทธิภาพและความปลอดภัยของยาเม็ดคุมกำเนิดฉุกเฉิน 4. คำถามเกี่ยวกับการให้บริการยาเม็ดคุมกำเนิดฉุกเฉิน 12 ข้อ เช่น ถ้ามเกี่ยวกับกลุ่มผู้รับบริการที่บุคลากรทางการแพทย์เลือกส่งจ่ายยาเม็ดคุมกำเนิดฉุกเฉินให้รวมถึงปัญหาและอุปสรรคของการส่งจ่ายยา แบบสอบถามได้ผ่านการทดสอบความเที่ยงตรงและความเชื่อมั่น ความเที่ยงตรงทางด้านเนื้อหาและภาษา ถูกทดสอบโดยผู้เชี่ยวชาญ ความเชื่อมั่นด้านความรู้ ประเมินผ่านทางค่าสัมประสิทธิ์ความสัมพันธ์เพียร์สัน เทากับ 0.75 ความเชื่อมั่นด้านทักษะคติ และการให้บริการยาเม็ดคุมกำเนิดฉุกเฉินผ่านทางค่าสัมประสิทธิ์ครอนบาส เทากับ 0.73 และ 0.78 ตามลำดับ (หากค่าสัมประสิทธิ์ความสัมพันธ์มีค่ามากกว่า 0.7 ความเชื่อมั่นอยู่ในเกณฑ์ดี)

ผลการวิจัย : ค่าเฉลี่ยด้านความรู้ของบุคลากรทางการแพทย์เท่ากับ 4.1. แพทย์ประจำบ้านต่อยอดได้คะแนนเฉลี่ยความรู้สูงสุด เทากับ 5.3 ในขณะที่เภสัชกรได้คะแนนเฉลี่ยความรู้ต่ำที่สุด เทากับ 3.1 อายุและสาขาที่ปฏิบัติงานมีความสัมพันธ์กับระดับความรู้เรื่องยาเม็ดคุมกำเนิดฉุกเฉิน ($p = 0.008$, $p < 0.001$) โดยแพทย์ประจำบ้านต่อยอดมีคะแนนความรู้สูงสุด รองลงมาเป็นแพทย์ประจำบ้านพยาบาล และเภสัชกร ตามลำดับ กลุ่มอายุ 31-40 ปี มีคะแนนความรู้สูงสุดซึ่งตรงกับช่วงอายุของแพทย์ประจำบ้านต่อยอด ร้อยละ 36.9 ของแพทย์ประจำบ้านและพยาบาลมีความกังวลเกี่ยวกับประสิทธิภาพ และความปลอดภัยของยาเม็ดคุมกำเนิดฉุกเฉิน ในขณะที่เภสัชกรร้อยละ 18% และแพทย์ประจำบ้านต่อยอดร้อยละ 8.2% มีความกังวลน้อยกว่า สาขาที่ปฏิบัติงานมีความสัมพันธ์กับความกังวลในเรื่องประสิทธิภาพและความปลอดภัยของยาเม็ดคุมกำเนิดฉุกเฉิน ($p = 0.009$) แพทย์ร้อยละ 18.4 เคยส่งจ่ายยาเม็ดคุมกำเนิดฉุกเฉิน เภสัชกรให้คำปรึกษาเรื่องยาเม็ดคุมกำเนิดฉุกเฉิน มากกว่า พยาบาล แพทย์ประจำบ้าน และแพทย์ประจำบ้านต่อยอด

สรุป : ระดับความรู้ ทักษะคติ และการให้บริการยาเม็ดคุมกำเนิดฉุกเฉิน ในกลุ่มบุคลากรทางการแพทย์แตกต่างกัน ปัจจัยที่มีผลต่อความรู้ คือ สาขาการปฏิบัติงานและอายุ ปัจจัยที่มีผลต่อทักษะคติ คือ สาขาการปฏิบัติงานและความรู้ ปัจจัยที่มีผลต่อการบริการยาเม็ดคุมกำเนิดฉุกเฉิน คือ ทักษะคติ (ความกังวลเรื่องประสิทธิภาพ และความปลอดภัยของยาเม็ดคุมกำเนิดฉุกเฉิน)