# **Knowledge of Paramedical Students about Emergency Contraception in Baghdad City**

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#### Abstract

**Objectives :** To determine the knowledge and attitude of paramedical students about emergency contraception.

**Methodology :**A cross-sectional study conducted inn college of Health and Medical Technology, College of Nursing University of Baghdad, Institute of Medical Technology. Sampling was (non probability convenient) & the sample size was 120 students. Study started from March 2015 to March 2016. Data was collected by questionnaire to obtain socio-demographic information (age, gender, contraception using intake of ,pills contained progesterone & estrogen ,pills without prescription ,family planning with contraception, dual & signal pills ,disease prohibited from using ,side effects,.....etc).

**Results:** The result showed that there was a higher percentage of the received the answers were these of paramedical student in the college Nursing in age group (21-24)whereas the higher level of knowledge of paramedical student was recorded in health and medical technologies their responses were about the emergency contraception contained progesterone and estrogens the percentage of their responses was (31.7 %). There is a sort of convergence in the level of education between the students ,Faculty of technical and those of the faculty of Nursing.

**Recommendations:** There is a great need to improve the quality of knowledge of paramedical student regarding the emergency contraception through supplying health education courses and seminars and tackling this thread intensively.

Keywords: Paramedical, Emergency Contraception.

الخلاصة

**الهدف من الدراسة:** أن الهدف من الدراسة تحديد معرفة طلاب كل من كلية التمريض وكلية التقنيات الصحية والطبية والمعهد التقني الطبي حول موانع الحمل الطارئ . المنهجية: كانت الدراسة دراسة مقطعية والتي تم الحصول عليها من طلاب كلية التقنيات الصحية والطبية وكلية التمريض والمعهد الطبي التقني أجريت خلال الفترة الممتدة من آذار ٢٠١٥ إلى آذار ٢٠١٦ وشملت الدراسة (١٢٠) (عينة غير احتمالية سهلة,تم جمع المعلومات باعتماد استبانه خاصة أعدت لهذا الغرض واعتماد المعلومات الديمغرافية (العمر ,الجنس,استعمال الموانع,هل تحتوي الحبوب على البروجستيرون والاستروجين ,هل يتم أخذها بدون وصفة طبية ,هل يتم تنظيم الأسرة باستخدام الحبوب , الحبوب أحادية التركيب أو ثنائية التركيب ,هل يوجد مرض يمنع استخدامها,الأعراض الجانبية للحبوب ....الخ)

النتائج: أظهرت النتيجة أن أعلى معدل من الإجابات هو من قبل طلاب كلية التمريض في سن (٢١–٢٤) سنة، وأعلى معارف للطلاب في كلية التقنيات الصحية والطبية حول (حبوب منع الحمل الطارئ تحتوي على هرموني البروجيستيرون والأستروجين) وكانت النسبة هي (٣١.٣%).

**التوصيات**: هناك حاجة ماسة لتحسين وتطوير معارف الطلبة بخصوص موانع الحمل الطارئ من خلال التثقيف الصحي والندوات و در استهم للموضوع بصورة موسعة.

الكلمات المفتاحية : المسعفين، وسائل منع الحمل في حالات الطوارئ.

### **1-Introduction**

Half of all pregnancies in the United States are unintended; 3.2 million occurred in 2006alone, which is the last year for which data are available [1]. Emergency contraception offers women a last chance to prevent pregnancy after unprotected intercourse. Emergency contraception is especially important for outreach to the 4.5 million women

who are at the risk of pregnancy .However ,there is no regular method which provides a bridge to use an ongoing contraceptive method [2] [3] .

Although emergency contraceptives do not provide protection against sexually transmitted infection, they do offer reassurance to the 8.6 million women who rely on condoms for protection against pregnancy in case of condom slippage or breakage [4].

Emergency contraceptives available in the United States include emergency contraceptive pills and the Copper T intrauterine contraceptive (IUC) [4] .The levonorgestre releasing intrauterine system (sold as Marina in the United States) is currently being stud- ied to be used as Emergency Contraception [5].

Emergency contraception (EC), or emergency poetical contraception, are birth control measures that, if taken after sexual intercourse, may prevent pregnancy Emergency contraceptive pills (ECPs)—sometimes simply referred to as emergency contraceptives (ECs) or the "morning-after pill"—are drugs intended to disrupt or delay ovulation or fertilization, which are necessary for pregnancy contraceptives<sup>.</sup><sup>[6]</sup> [7] [8]. Emergency contraceptive pills (ECPs) sometimes referred to as emergency hormonal contraception (EHC) in Great Britain may contain higher doses of the same hormones estrogens, progestin's, or both found in regular combined oral contraceptive pills. Taken after unprotected sexual intercourse or contraceptive failure, such higher doses may prevent pregnancy from occurring [8].

The phrase "morning-after pill" is a misnomer; ECPs are most effective when used shortly after intercourse [9] [10].

Three types of emergency contraceptive pills are available: combined estrogen and progestin pills, progestin-only (levonorgestrel) pills, and ant progestin (ulipristal acetate or mifepristone) pills. Progestin-only and antiprogestin pills are available as dedicated specifically packaged for use as emergency contraceptive pill [11] [12]. Combined estrogen and progestin pills are no longer available as dedicated emergency contraceptive pills, but certain regular combined oral contraceptive pills may be used as emergency contraceptive pills [13] [14] [15]

# 2-Objective

To determine the knowledge and attitude of paramedical students on emergency contraception.

# **3-Subjects and Methods**

### 3.1 - Study design

Across-sectional study& the sample size was 120 students (fourth stage)

#### 3.1.1 Duration of the study

Data collection continued for a period starting from March 2015 to March 2016.

**Study Setting** The place where data collection from paramedical student from college of Health and Medical Technology /Medill technical university, College of Nursing University of Baghdad, Institute of Medical Technology/Baghdad/ Medill technical university.

**Data collection** A special questionnaire was design for the study included special information for paramedical student such as( age, gender, contraception using, pills contained progesterone and estrogen, pills without prescription, family planning with contraception ,dual and single pills, best way to prevent, the first pill intake increased opportunity, disease prevented from using, side effect)......Etc.

*Statistical method* Statistical analysis was carried out using SPSS program, it was crosssectional study including percentage and chi-square test to find any association between variables (true)which means (I know) (false) which means (I do not know), and obtained MCP (Monte Carlo P- value).

# 4- Results

## 4.1 - Results

Table (1) Shows that the higher percent of current answers in female was 27.5% and the lower percentage was 0.8 % while the higher percent for male 18.3 % and the lower percent was 4.2 % as shown in this table.

Table (1). Distribution of gender according to age groups									
			Ger	ıder	der				
Age groups Years		N	lale	Fe	Female				
		NO.	%	NO.	%	NO.	%		
Γ	( < 21 )	5	4.2%	25	20.8%	30	25.0%		
	( 21-24 )	22	18.3%	33	27.5%	55	45.8%		
	(25-28)	8	6.7%	17	14.2%	25	20.8%		
	( > 29 )	9	7.5%	1	0.8%	10	8.3%		
	Total	44	36.7%	76	63.3%	120	99.9%		
	Test	MCP	= 0.000		P<0	.01			

#### Table (1): Distribution of gender according to age groups

Table (2) Shows that the higher percent of knowledge in Nursing about contraception using was 20.8% and the lower percent in medical institute was 13.35%.

Table (2) Distribution of knowledg	Table (2) Distribution of <u>knowledge_about</u> contraception using according to educational level								
		Cont	racept	ion usir	ng		Total		
Educational level	Т	rue		F	alse		Totai		
		NO.	9	6	NO.	%	NO.	%	
Health and medical technologies	24	20% 16		13.3%		40	33.3%		
Nursing	25	20.8	3%	15	12.5	5%	40	33.3%	
Medical Institute	16	13.3	5%	24	20.5	5%	40	33.3%	
Total		65	54.	2%	55	46.3%	120	100%	
Test	МСР	= 0.0	01			P< 0.01 (HS	)		

Table (2) Distribution of knowledge about contraception using according to educational lev-
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Table (3) shows that higher percent knowledge in health and medical technologies about contraception pills contain progesterone and estrogen was 31.7% and the lower percent in medical institute was 24.2%

	cont prog	raception sesterone	pills co and estr	ntain ogen	Т	otal		
Educational level	Т	rue	F	alse	Γ			
	NO.	%	NO.	%	NO.	%		
Health and medical technologies	38	31.7%	2	1.7%	40	33.3%		
Nursing	34	28.3%	6	5%	40	33.3%		
Medical Institute	29	24.2%	11	9.2%	40	33.3%		
Total	101	84.2%	19	15.9%	120	100%		
Test	мс	P = 0.123		P> 0.05 (NS)				

Table (3) Distribution of knowledge about contraception pills contain progesterone and estrogen according to educational level

Table (4):- Shows that higher percent of knowledge in nursing college about Emergency contraception pills without a prescription was 24.2% and the lower percent in health and medical technologies 18.3%.

prescription acco	iption according to educational level									
	Emergency contraception pills without a prescription									
Educational level	Ca obta	n be ained	yes obt fr phar with prese	Can be tained rom macies hout a cription	Ca obt with pres	an be ained nout a cription	Ca obtair other	in be ned from sources	٦	otal
	NO. % NO. % NO. %			%	NO.	%	NO.	%		
Health and medical	0	2 5 9/	22	NO. %		10.00/	2	1 70/	40	22.20/

Table (4) Distribution of knowledge about Emergency contraception pills without a tion according to adjucational level

Educational level	Ca obta	n be ained	from pharmacies without a prescription		obtained without a prescription		Can be obtained from other sources		Total	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Health and medical technologies	3	2.5%	22	18.3%	13	10.8%	2	1.7%	40	33.3%
Nursing	5	4.2%	29	24.2%	5	4.2%	1	0.8%	40	33.3%
Medical Institute	4	3.3%	24	20%	10	8.3%	2	1.7%	40	33.3%
Total	12	10%	75	62.5%	28	23.3%	5	4.2%	120	100%
Test	MCP = 0.474								Ρ	> 0.05 (NS)

Table (5):- Shows that higher percent of knowledge in Health and medical technologies college about family planning with contraception was 30.8% and the lower percent in medical institute was 14.2%.

	famil contra	y plannin ception	g with		Total			
Educational level	Т	rue	F	alse				
	NO.	%	NO.	%	NO.	%		
Health and medical technologies	37	30.8%	3	1.7%	40	33.3%		
Nursing	33	27.5%	7	4.2%	40	33.3%		
Medical Institute	17	14.2%	23	19.2%	40	33.3%		
Total	87	72.5%	33	25.1%	120	100%		
Test		MCP =	= 0.000		P< 0.01	P< 0.01 (HS)		

Table (5) Distribution of family planning with contraception according to educational level

Table (6):- Shows that higher percent of knowledge in Health and medical technologies in dual and single pills of emergency contraception was 11.7% and the lower percent in medical institute was 4.2%.

according to educational level							
	dı em	1al and sii ergency c	ngle pil ontrac	ls of eption	Total		
Education level	Т	rue	Fa	alse			
	NO.	%	NO.	%	NO.	%	
Health and medical technologies	14	11.7%	26	21.6%	40	33.3%	
Nursing	12	10%	28	23.3%	40	33.3%	
Medical Institute	5	4.2%	35	29%	40	33.3%	
Total	31	25.8%	89	74%	120	100%	
Test		MCP =	0.002		P< 0.01 (HS)		

 Table (6) Distribution of knowledge about dual and single pills of emergency contraception

 according to educational level

Table (7):- Shows that higher percent of knowledge in nursing about the first disk intake increased opportunity in contraception was 25.8% and the lower percent in medical institute was18.3%.

	the f	irst disk in ortunity in	take in contra	creased ception	Total			
Educational level	Т	rue	Fa	ilse				
	NO.	%	NO.	%	NO.	%		
Health and medical technologies	30	25%	10	8.4%	40	33.3%		
Nursing	31	25.8%	9	7.5%	40	33.3%		
Medical Institute	22	18.3%	18	15%	40	33.3%		
Total	83	<mark>69.2%</mark>	37	30.9%	120	100%		
Test		MCP =	0.049		P<= 0.0	P<= 0.05 (S)		

Table (7) Distribution of knowledge about the first disk intake increased opportunity in contraception according to educational level

Table (8) Shows that higher percent of knowledge in nursing college about disease prohibited from using emergency contraception were 22.5% and the lower percent in medical institute was 15.8%.

Education level	Diseas using contra	es prohib emergenc ception	ited fro y	om	Total			
	Т	rue	Fa	alse				
	NO.	%	NO.	%	NO.	%		
Health and medical technologies	26	21.7	14	11.6%	40	33.3%		
Nursing	27	22.5	13	11.2%	40	33.3%		
Medical Institute	19	15.8	21	17.2%	40	33.3%		
Total	72	60%	48	40%	120	100%		
Test	MCP = 0.001				P< 0.01 (HS)			

Table (8): Distribution of knowledge about disease prohibited from using emergency contraception according to educational level

Table (9) shows that higher percent of knowledge in Health and medical technologies and nursing in side effects was 26.7% and the lower percent in medical institute was20%.

		side (	effects		То	tal		
Educational level	Т	rue	F	alse				
	NO.	%	NO.	%	NO.	%		
Health and medical technologies	32	26.7%	8	6.7%	40	33.3%		
Nursing	32	26.7%	8	6.7%	40	33.3%		
Medical Institute	24	20%	16	13.3%	40	33.3%		
Total	88	73.3%	32	26.7%	120	100%		
Test	MCP = 0.348				P> 0.05	P> 0.05 (NS)		

Table (9) Distribution of <u>knowledge</u> about side effects of contraception emergency according to educational level

# **5 - Discussion**

According to the gender, the result in this study showed that the higher percentage of knowledge in female with age group 21-24 (27.5%). This result is agreement with in Ethiopia [16]

Regarding educational level and contraception use knowledge, the result of this study demonstrated that 20.8% of study. This finding in agreed with the study done by [17] in Eastern Nigeria, which found the percentage was 25%.

The result in this study (table 3) revealed that the association between educational level and pills contain progesterone and estrogen knowledge, are about 31.7%., agree with study of [18] in South African .that found the percentage was 37.9%.

According to educational level and Contraception pills without a prescription knowledge. This study demonstrated that 24.2% of study ,this result was in approach with [19] in Southwest Ethiopia who found that the percentage was 25 %.

Regarding to educational level and Family planning with Contraception knowledge. This study found that 30.8% of the study .this result was agreed with study done by [20].

Also the relation between educational level and dual and single pills knowledge. This study demonstrated that 11.7% of study. This result is in agreed with [21] [22] in 2010.

In educational level and the first disk intake increased opportunity in contraception knowledge. This study appeared that 25.8% of study, this finding supported with the study done by [23]. That found of the study that the woman speed up in the first disk intake increased opportunity and prevent pregnancy.

According to educational level and Disease prohibited from using contraception knowledge. This study demonstrated that 22.5% of study .This is a study of agreed with study done by[24] in Cameroon. That found of the study a significant association between woman using contraception and lead to development disease.

According to educational level and Side effects knowledge, this study demonstrated that 26.7% of study. That study was nearly percentage in hormone with [25] in Kathmandu. Found the percentage was 30 % [25]. And study done by [26], which recorded 27.4%.

## References

- [1] Finer LB and Zolna MR. (2011) Unintended pregnancy in the United States: incidence and disparities,2006. Contraception.;84:478-85.
- [2] Mosher WD and Jones J. (2010) Use of Contraception in the United States: 1982-2008. National Center for Health Statistics .Vital Health Stat.; 23(29).
- [3] Stewart F; Trussell J; and Van Look PFA. (2007): In Hatcher RA, russellJ,Nelson A, Cates W, Guest F, Stewart F, Kowal D. Contraceptive Technology: Nineteenth Revised Edition. New York NY: Ardent Media.
- [4] Glasier A. (2005) :Emergency postcoital contraception. N Engl J Med. ;337:105864.
- [5] Hatcher RA ;Trussell J; Stewart F; Howells S; Russell CR and Kowal D(1995): Emergency Contraception :The Nation's Best Kept Secret. Decatur GA;. Bridging the Gap Communications.
- [6] Ellertson C; Webb A; Blanchard K; Bigrigg A; Haskell S; Shochet T; and Trussell J (2003): Modifying theYuzpe regimen of emergency contraception: a multicenter randomized, controlled trial .Obstet Gynecol.;101:1160-7.
- [7] Von Hertzen H; Piaggio G; Ding J; Chen J; Song S; Bártfai G;, Gemzell-Danielsson K ;Oyunbileg A; Cheng W; Lüdicke F; and Peregoudov A. (2002): Low dose mifepristone and two regimens oflevonorgestrel for emergency contraception: a WHO multicentrerandomised trial. Lancet.;360:1803-10.
- [8] Arowojolu AO; Okewole IA and Adekunle AO;(2002): Comparative evaluation of the effectiveness andsafety of two regimens of levonorgestrel for emergency contraception in Nigerians.Contraception.;66:269-73.
- [9] Selected practice recommendations for contraceptive use. Second Edition. Geneva: World Health Organization, 2004.
- [10] Creinin MD; Schlaff W; Archer DF; Wan L; Frezieres R; Thomas M; Rosenberg M;and Higgins J.(2006) :Progesterone receptor modulator for emergency contraception: a randomized controlled trial. Obstet Gynecol;108:1089-97.
- [11] Fine P; Mathé H; Ginde S; Cullins V; Morfesis J; and Gainer E;(2010): Ulipristal acetate taken 48-120 hours after intercourse for emergency contraception. Obstet Gynecol.;115:257-63.

- [12] Glasier AF; Cameron ST; Fine PM; Logan SJ; Casale W; Van Horn J; Sogor L; Blithe DL; Scherrer B; Mathe H; Jaspart A; Ulmann A; and Gainer E.(2010): Ulipristal acetate versus levonorgestrelfor emergency contraception: a randomized non-inferiority trial and meta-analysis;375:555-62.
- [13] Cheng L; Che Y ; and Gülmezoglu AM; (2012): Interventions for emergency contraception. Cochrane Database Sys Rev., Issue 8, .
- [14] Jesam C; Salvatierra AM; Schwartz JL;and Croxatto HB. (2010) Suppression of follicular rupture with meloxicam, a cyclooxygenase-2 inhibitor: potential for emergency contraception. HumReprod.;25:368-73.
- [15] Edelman AB; Jensen JT; Doom C; and Hennebold JD.( 2013): Impact of the prostaglandin synthase-2 inhibitor celecoxib on ovulation and luteal events in women .Contraception.;87:352-7, .
- [16] Wegene T. ;and Fikre E. (2007) Knowledge, attitude, and practice on emergency contraceptives among female university students in Addis Ababa, Ethiopia. Ethiop .J.health Dev.; 21 ; (2): 111-116.
- [17] Ikeme AC ; Ezegwui HU ;and Uzodimma AC . (2005): Attitude and of emergency contraception among female undergraduates in Eastern Nigeria . J. Obstet Gynaecol . Jul ; 25 (5) : 491-3,.
- [18] Kistnasamy EJ; Reddy P ;and Jordaan J, (2009): An evaluation of the Knowledge, attitude and practices of South African university students regarding the use of emergency contraception and of art as an advocacy tool. Pract. Vo.51 No 5.
- [19] Nasir Tahure B.(2010): Knowledge attitude and practice of emergency contraception among graduating female studentsof Jimma University southwest Ethiopia. Ethiop J health Sci., Vol. 20, No. 2,.
- [20] Wellbery C. (2000): Emeregency contraception. Arch Fam Med Jul; 9 (7): 642-6.
- [21] Kitshoff C. (2010) Knowledge of students in higher education regarding contraception. Theses, December, .
- [22] Predictors of emergency contraceptive use among Regular Female Students at Adama University, Central Ethiopia. The Pan African Medical Journal .; 7 : 16, 2010.
- [23] Hiwot A. and Bosena T. (2009) :Knowledge, Attitudes, and practices towards emergency contraception among female Jimma University students, Jimma, South west Ethiopian. Ethiopian Journal of Reproductive Health, May, Volume 3.
- [24] Eugene J ;Kongny P; Ngassa and Nelson F.(2007) A survey of university students in Cameroon. BMC emergency Medical, 7:7.
- [25] Ramesh A. (2009): Factors affecting awareness's of emergency contraception among college students in Kathmandu, Nebalm. BMC Women Health.; 9:27.
- [26] Okewole IA; Arowojolu AO; Odusoga OL; Adeleye OA; Salu J and Dada OA(2007): Effect of single administration of levonorgestrel on the menstrual cycle .Contraception.;75:372-7, .