### **ORIGINAL ARTICLE**

### Seeking ways in improving promotion and provision of emergency contraception in Addis Ababa Hospitals

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#### Abstract

**Objective:** To assess attitudes of physicians working in Addis Ababa government hospitals towards routine counseling and advance prescription of emergency contraception (EC).

**Methods:** A cross sectional descriptive study on attitudes of physicians towards routine counseling and advance prescription of EC was performed on 445 physicians working in Addis Ababa public hospitals. A standardized questionnaire which assessed knowledge, attitudes and practices (KAP) on EC provision and routine counseling and advance prescription of EC were administered among participants.

**Results:** Out of the total 445 physicians, there was an overall response rate of 86.1%. Only 55.3% participants received a very good and good knowledge score. Physicians of gynecological and obstetrics department were more knowledgeable than others (p<.0001.). Attitudes of physicians were favorable (64%) towards EC. Being a member of gynecological and obstetrics department showed a very good knowledge score, and past counseling and prescribing EC had favorable attitudes. The majority 72.4% (240) have never prescribed EC. Physicians who ever counseled and prescribed EC before the survey were more likely to have a very good knowledge score (181 p < 0.0001), favorable attitudes (176 p<.001) and past prescribing (124 p < 0.15) than others. The majority of the respondents 316 (83.6%) agreed on the role of routine counseling and advance prescription supply of EC, in provision, promotion and information dissemination, and among them 68.8%, were willing to prescribe EC in the future. More than 90% had some concerns like it might encourage repeated use. Eighty four percent mentioned mass media, printed materials, women organization and telephone including text messages and involvement of male partners as better options for EC advocacy, information dissemination, and provision.

**Conclusion:** Attitudes of physicians on EC was favorable but knowledge and practices of EC were very low. Strategy to increase its access through routine counseling and advance prescription supply to all women is taken not only positively but also majority of them are willing to offer EC in advance by prescription and addressed the need of information on EC for providers and clients. Improving KAP on EC is crucial and physicians need to be provided with accurate and up to date information through comprehensive training and updates on EC.

Keywords: Emergency contraception, KAP, physicians, contraception.

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## Introduction

The World Health Organization (WHO) estimates that in developing countries, 10-40% of young women reported unwanted pregnancy (1). Globally, unintended pregnancy is a common public health problem. Each day about 910,000 conceptions occur; more than half are unintended and a quarter definitely unwanted. In Ethiopia, the rate of unwanted pregnancy is estimated to be 40-41% of all pregnancies (2). Emergency contraception (EC), being a safe and effective means of post coital contraception following sexual assault or consensual sex, worldwide, are underutilized. Since the inception of EC in the 1960s, so far, its journey had faced enormous barriers i.e. issues surrounding EC services provision, including wide varieties of social, programmatic and or technical aspects with the introduction of the methods (3).

Worldwide a number of knowledge, attitude and practice (KAP) studies were conducted to explore the reasons for its underutilization. A KAP study from South Africa and another study conducted in Ethiopia on knowledge of EC among victims of abortions found that knowledge of EC was 47.1% and 57%, respectively (4,5). It is not only lack of knowledge of clients that brought underutilization of EC, but also the attitudes of parents and religion towards EC provision. In Spain and USA, EC is made available only to those with medical prescriptions (6). Women at risk for unintended pregnancy strongly need positive and supportive attitudes from health professionals so that they get adequate information and services. However, many studies demonstrated that there was not only little knowledge but also misinformation on the part of the health providers that attributed to an access barrier to EC provision and promotion (7).

Studies on the provision of EC and subsequent condom use among African American adolescents and Hispanic women in the USA found that, 60% of youngsters reported that EC had changed the way they used birth control without affecting condom use, 33% reported EC had resulted in more responsible use of contraceptives and only 6.7% indicated that EC resulted in less responsible use of contraceptives (8). If EC was started within 72 hours of sexual act, it has the potential to prevent 75% of unintended pregnancies and reduce abortion by 50%. Hence effective use of EC requires easily availability and accessibility 24 hours of a day and seven days of a week (9). Moreover, women do not get appropriate support and counseling from the health providers and are not offered the options of EC use, for instance advance provision of EC i.e. a supply at hand before the act of the emergency (10).

Ethiopia is one of the poorest countries with a high maternal mortality rates and a low contraceptive prevalence rate. Much hasn't been done on provision and promotion of regular contraception in general and specifically on EC access. Hence, it a high time to explore the role of service providers on the provision, promotion, advocacy and information dissemination of EC.

This study therefore focuses on the attitudes and willingness of physicians (general practitioners, residents and specialists) currently working in Addis Ababa government hospitals on routine counseling and advance supply of EC to all clients in the reproductive age group when they visited the hospital for one or another reasons. At the same time, it tries to seek ways or options to improve advocacy, promotion and provision of EC.

## Subjects and Methods

This is a cross sectional descriptive study, which was conducted on the attitudes and willingness of physicians (i.e. general medical practitioners (GMPs), residents and specialists) currently working in Addis Ababa government hospitals on routine counseling and advance supply of EC. All doctors working in twelve government hospitals in Addis Ababa were included. As there was no similar study done in Ethiopia previously a sample size of 384 was taken assuming a positive attitude of 50% among the studied physicians.

A structured, pre tested, self-administered questionnaire was used to collect information on the KAP of service providers. Data was coded, entered , cleaned and analyzed using SPSS 13 statistical software. Mean, standard deviation and frequency were used for numerical variables and for categorical variables the chi square and p-value were applied for analysis of statistical significances.

Knowledge of EC was scored out of 5 as very good (5 or 4 out of 5), good (3 out of 5) and poor (0, 1, 2 out of 5). Likert's attitude scaling was used in the measurement of attitude. A score of 75% was taken as a favorable attitude.

Ethical clearance was obtained from the Research and Publication Committee of the Department of Gynecology and Obstetrics, Faculty of Medicine, Addis Ababa University. Study hospitals were notified with official letters before the research was conducted. Written consent was obtained from each respondent and confidentiality was assured and maintained.

### Results

Out of the total 445 physicians the proportions of various categories were: general practitioners (50), residents (280) and specialists (115). Questionnaires were completed by 60% of general practitioners 98% of residents and 67.8% of oby/gyn specialists yielding an overall response rate of 86.1%.

Some participants completed the demographic responses fully, but did not complete all the responses, therefore denominators for response may vary in the data analysis.

Three hundred and eight (80.2%) participants were male, with a mean age of 32 years (range 27-60years). Most participants were married 201 (52.3%) and the dominant religious affiliation was Orthodox Christian 285 (74.8%). The detailed socio demographic characteristics of participants are presented in Table 1.

The majority of physicians, 234 (60.9%) are concentrated in the main teaching hospital and nearly half of them 211 (55%) had work experience of at least 5-10 years (Table 2).

In general, when knowledge about EC was scored, 93 (24.2%) of the participants received a very good score; 120(31.1%) a good score and 171 (44.4%) received a poor score, among whom three were ob/ gyn specialists (Table 3).

Characteristics		Freq	uency	Percent
		Ireq	ucity	rereem
Age (years)				
25-30			104	27.08
31-35			146	38.08
36-40			76	19.79
>40			58	15.10
mean	32			
median	34			
mode	32			
Sex				
Male		308		80.2
Female		76		19.1
Marital status				
single			183	47.7
married			201	52.3
Religion				
orthodox			285	74.79
muslin			39	10.15
protestant			38	10.00
catholic			10	3.12
others			12	2.60

Table 1: Socio-demographic characteristics of respondents in Addis Ababa,
public hospitals, Addis Ababa, Ethiopia, 2006 (n=384).

Department	Frequency	Percent
Internal medicine	115	29.9
Ob/Gyn	93	24.2
Surgery	79	20.4
Pediatrics	46	12.
Radiology	37	9.6
Orthopedics	15	3.9

# Table 2: Distribution of physicians by departments in Addis Ababa public hospitals, 2006, Addis Ababa, Ethiopia.

Table 3: Knowledge about emergency contraception among physicians in public hospitals in Addis Ababa, Ethiopia, 2006.

		GM	Ps	Reside	nts	Specia	lists	Total	
Questions about EC	Response	n=	30 %	n=276	%	n =79	%	n	%
-EC by type	(c)	29	(96.7)	276	(100)	79	(100)	383	99.7
-methods of EC	(c)	20	(66.7)	109	(39.5)	33	(41.8)	162	42.2
-timing of EC	(c)	16	(53.3)	122	(44.3)	35	(44.3)	173	45.2
-no prerequisites	(c)	14	(46.7)	101	(36.6)	10	(12.7)	125	32.6
-effectiveness	(c)	12	(40.6)	82	(29.6)	6	(7.6)	100	26.3
Knowledge scores									
-very good (4 or 5 /5)		5	(16.7)	72	(18.5)	16	(20.3)	93	24.2
-good (3 out of 5)		7	(23.3)	93	(33.7)	20	(25.4)	120	31.3
-poor (0 or 1 or 2 out of 5)		18	(60.0)	111	(40.8)	42	(53.9)	171	44.5

-All percentage are calculated on valid response only

-GPs: general practitioners (c)- brackets are number of respondents

Almost all participants 382 (99%) agreed on the role of EC on preventing unplanned and unwanted pregnancies and additionally the majority of respondents 298 (77.9%) supported promotion and provision EC. But only 134 (34.9%) of the physicians agreed on provision of EC by non medical professionals and similarly less than half 47.9% (188) physicians had approval for easy availability and accessibility of EC out side the areas of health delivery services like in hotels, schools, police stations etc. In general, when attitudes of physicians were assessed using Likert's test, the majority of physicians, 245 (64%) had favorable attitudes (Table 4). Only less than half of the physicians 144 (37.6%) had ever counseled their clients or patients on EC and the majority of them accounting for 240 (72.4%) had never prescribed ECs in their past clinical practices.

Among those who counseled and prescribed EC, the majority of them 100 (70%) had never practiced it within the last one year. Similarly more than two third (101) counseling and provision of EC were done by physicians: GPs residents and specialists working in gynecological and obstetrics department (Table 5).

Attitudes and practices	GPs		Residents		Specia	lists	Cumul	Cumulative	
practices	freq	%	freq	%	freq	%	freq	%	
Promotion	~~~~		~~~~				~~~~		
agree	24	80	218	79	56	70.9	298	77.6	
disagree	6	20	59	21	23	29.1	86	22.4	
Provision includ-									
ing on medical									
professionals									
agree	2	6.7	110	38.9	22	27.8	134	34.9	
disagree	28	92.3	165	61.1	57	72.2	250	65.1	
Accessibility out-									
side health services									
agree	24	80	125	46.7	39	49.4	188	47.9	
disagree	6	20	150	54.3	40	50.6	196	52.1	
Past practices									
Counseling									
yes	12	40	81	29.3	37	46.8	144	37.6	
no	18	60	195	70.7	42	53.2	240	72.4	
Prescribe									
yes	12	40	81	29.3	37	46.8	144	37.6	
no	18	60	195	70.7	42	53.2	240	72.4	

Table 4 Attitudes and past practices of respondents on 1	EC in Addis Ababa public hospitals, Addis Ababa,
Ethiopia, 2006.	

Physicians who ever counseled and prescribed EC before the survey were more likely to have a very good knowledge score (p<0.0001) and positive attitudes (p<.001) and history of past practices (p<015) than those who had never counseled or prescribed EC. When physicians were asked about their attitudes on promotion and provision of EC, the majority 316 (83.6%) agreed on the role of routine counseling and prophylactic provision of EC, for all women in the reproductive age groups, helps in provision, promotion and information dissemination of EC.

Similarly, when they were asked about their willingness on participation in promotion and provision of EC, 68.8% (220) were ready to give routine advice, counseling and advance prescription supply of EC, while they are in day-to- day hospital activities to all women in the reproductive age group when they visit the hospital for one or another reason. Only 122 (31.8%) of the respondents had disapproval, however the majority 198 (90%) had concerns on routine counseling and advance prescription supply of EC. Some believe it may encourage repeated and improper use and others mentioned contraceptive and sexual risk takings among users (Table 6).

Similarly among those who agreed to offer routine counseling and an advance provision of prophylactic EC, 176 (80%) emphasized the need for comprehensive EC training for the service providers, and increased access to IEC materials for both the providers and clients.

Eighty four percent (322) physicians commented that better options of EC, advocacy, information dissemination, provision and promotion that can most effectively reach women other than routine counseling should be promoted. This is necessary in addition to an advance prophylactic provision of EC to clients. And among these, almost all (99%) mentioned mass media, printed materials, women organization and telephone including text massages and involvement of male partners in the advocacy effort.

	G	GPs		idents	Specialists		Cumulative	
Attitudes	Freq	%	Freq	%	Freq	%	Freq	%
Routine counseling								
helps in promotion,								
advocacy EC								
agree	18	60	240	87	59	74.7	316	83.6
disagree	12	40	36	13	20	25.3	68	16.4
Prophylactic provision								
prevents unintended								
pregnancy								
agree	18	60	240	87	59	74.7	316	83.6
disagree	12	40	36	13	20	25.3	68	16.4
Willingness								
routine counseling								
agree	17	56.7	160	76.2	43	56.7	220	68.6
disagree	13	43.3	50	23.8	33	43.3	96	12.1
Prophylactic provision								
agree	15	50	160	76.2	40	52.6	215	68.1
disagree	15	50	50	23.8	36	47.4	101	31.9

# Table 5 Attitudes and willingness on routine counseling and advance prescription supply among physicians,Addis Ababa, Ethiopia, 2006.

Table 6: Concerns of respondents on routine counseling and advance prescription provision of EC,Addis Ababa, Ethiopia, 2006.

Physicians Concern	F	Frequency	percent
Moral and religious objection		8	6.6
Women rely on EC as regular contraception		22	18
Encourages irresponsible sexual behavior		32	26.1
Ineffective in preventing pregnancy		20	16.4
Fear of side effects			-
All		8	6.6
Any three reasons		23	18.9
Any two reasons		9	7.4
Total		122	100

### Discussion

The higher response rate among residents (95%), compared to specialists (69%) and GPs (60%) was likely to be due to the different method of recruitment. The researcher visited residents' workplaces and shared information about the objective the study, while specialists and GPs received the questionnaire through the secretaries of medical organizations, without any contact with the researchers. This survey revealed that there was low knowledge level and also limited and wrong practices of EC even among gynecological and obstetrical specialists.

This survey also revealed that physicians working in gyn/obs department were more likely to be involved in EC care, a better knowledge and to be more familiar with the concept of EC than the other medical practitioners. This finding is similar to the survey done on KAP of EC among physicians and family planning providers in both developing and developed countries(7,8). Although there are number of factors sited for limited access and use of EC, partly it is attributed to limited knowledge which in turn brought limited practices among the providers. Whether EC can fulfill its potential for decreasing unintended pregnancies depends on women's ability to easily obtain and use it and one of the strategies to increase access is the provision of an advance supply of EC.

In our survey, the attitudes of physicians on routine counseling and advance prescription supply of EC was favorable (83.6%) and among this 68.6% (220) were willing to practice the option. However, the majority 198 (90%) had concerns on routine counseling and advance prescription supply of EC. Some believe it may encourage repeated and improper use and others mentioned contraceptive and sexual risk takings among users. This finding is similar to the studies done elsewhere (9, 10) but all studies which examined the impact of prophylactic supply showed increased use of EC without adversely affecting use of regular contraception including condom use. In fact, to the contrary, it helps women to be more responsible and improve to get STI/HIV/AIDS health education and prevention options.

In conclusion, the attitudes of physicians in Addis Ababa public hospitals on EC were favorable whereas knowledge and practices on EC is very low even among physicians working in gynecological and obstetrics departments. Therefore, appropriate training to all physicians should be organized on EC counseling and timely services.

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