Knowledge, Attitude and Practice of Obstetrician – Gynecologists on Emergency Contraception in Yerevan, Armenia

Master of Public Health Integrating Experience Project

Research Grant Proposal Framework

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List of Abbreviations

ADHS – Armenian Demographic Health Survey

AMD – Armenian Dram

EC – Emergency Contraception

ECP – Emergency Contraception Pills

GAR – General Abortion Rate

IUD – Intrauterine Device

KAP – Knowledge, Attitude and Practice

LNG – Levonergestrel

MOH – Ministry of Health

NIH – National Health Institution

UPA – Ulipristal Acetate

US – United States

WHO – World Health Organization

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Abstract

Contraception is the use of various devices, drugs, agents, sexual practices or surgical procedures to prevent conception or pregnancy. In 2015, globally the usage of some type of contraception was 64.0 % among reproductive age women. Globally, the unmet need for contraception is estimated at 12.0 %. This indicates that at least one in 10 women of reproductive age has unmet need of contraception.

Emergency contraception (EC) refers to the methods of contraception that include the use of any drug or device to prevent pregnancy after unprotected sexual intercourse. The EC is considered as a second chance to prevent undesired pregnancy when contraception fails or in the case of unprotected sexual intercourse. According to the American Society for Emergency Contraception, the use of EC methods is underutilized in most of the countries. There are multiple barriers for the use of EC including their availability and affordability, and the attitude/prescription practices of providers.

This study aim is to investigate knowledge, attitude and practice of the emergency contraception among obstetrician - gynecologists practicing in primary health care facilities in Yerevan. To answer the research questions, the study team will utilize analytical cross-sectional study design. The target population of this study includes obstetrician - gynecologists practicing in Yerevan, Armenia. Data will be collected through self-administered questionnaires. The main domains of the questionnaire include knowledge on the EC, attitude towards the EC, practice of prescribing the EC, barriers to prescribing of the EC, and demographic information of the respondents. The census of all 240 obstetrician – gynecologists practicing in the primary health care facilities in Yerevan will be conducted.

Data entry and cleaning will be done using SPSS and STATA software. Descriptive statistics will be run on all independent and dependent variables. Univariate linear regression will be run to detect unadjusted associations. Multivariate linear regression will be run to explore adjusted associations between independent variables and practice of the EC, while controlling for the covariates.

The study approved by the Institutional Review Board of the American University of Armenia.

The proposed study will last four months and the research team will consist of the study coordinator and study assistant. The total budget of the proposed study is estimated to be 1.834.400 AMD.

1. Introduction

1.1 Contraception

"Contraception is the use of various devices, drugs, agents, sexual practices or surgical procedures to prevent conception or pregnancy."[1] According to the World Health Organization (WHO), the modern contraception methods include combined oral contraceptives, progestogen only pills, implants, progestogen only injectables, monthly injectables or combined injectable contraceptives, combined contraceptive patch and combined contraceptive vaginal rings, hormone bearing intrauterine devices (IUD), male and female condoms, male and female sterilization, lactational amenorrhea, standard days method, basal body temperature method, TwoDay method, symptothermal method and emergency contraception (EC) methods.[2] There are several methods of traditional contraception, including calendar method or rhythm method and withdrawal.[2]

In 2015, globally the usage of some type of contraception was 64.0 % among reproductive age women.[3] The prevalence of use of any type of contraception is 33.0 % and 68.0 % in Africa and Asia, respectively.[3] It is higher in the developed areas of the world – 68.0 % in Europe and 75.0 % in the Northern America.[3] The use of modern contraceptives is estimated at 57.0 % among reproductive age women in the world.[3]

''The unmet need for contraception is defined as the percentage of women of reproductive age who want to stop or delay childbearing but do not use any method of contraception''.[4] Globally, the unmet need for contraception is estimated at 12.0 %.[3] This indicates that at least one in 10 women of reproductive age has unmet need of contraception.[3]

1.2 Barriers to contraception use

The studies that investigated barriers to contraceptive use have found that socio – economic status, educational level of women and the family size might affect the use of contraception among women of reproductive age.[5,6,7,8] In some studies women of reproductive age mention not having accurate knowledge and awareness on different methods of contraception as barriers to contraceptive use.[8]

Besides these, political, ethical and safety issues can be barriers to contraception use.[9] A study conducted in the United States (US), in 2016 among black, white and Hispanic women of 18-35 years old indicated that a major concern for women of reproductive age is side effects of contraceptives.[5] Another barrier to contraception is religion. Several studies found that women in reproductive age might not use contraceptive methods because of religion restrictions.[10,11,12] Additionally, the WHO states that the barriers to contraception use includes also limited choice and access to contraception, poor quality of available services and provider bias.[13] A qualitative study conducted in Kenya, among university students revealed that the participants believed contraception methods are not accessible because of provider biases.[14]

1.3 Consequences of non-use or inappropriate use of contraception

"When women do not want to get pregnant and do not use contraception or use it ineffectively, unintended pregnancies and induced abortions or unwanted births might occur."[15] When a trained person performs an abortion following to a method approved by the WHO and pregnancy period is appropriate for the abortion, it is considered as safe abortion.[16] . According to the WHO statement, unsafe abortion is ''a procedure for terminating an unwanted pregnancy

either by persons lacking the necessary skills or in an environment lacking minimal medical standards or both''. [15]

During 2010 – 2014, 55.7 million induced abortions (both safe and unsafe) occurred worldwide per year, of which 25 million were unsafe abortions.[17] Approximately the half of all abortions took place in Asia.[17] About 4.7 % - 13.2 % of all maternal deaths which occurred during 2003 – 2009 were due to unsafe abortions.[18] In 2012, 7 million complications were reported due to unsafe abortions in low – and middle – income countries.[19] Each year approximately US$ 553 million refers to women health who are treated for major complications caused by unsafe abortions.[20]

Abortion rate is higher in low – and middle – income countries than in high – income countries. In 2016, the abortion rate was 27 per 1000 women in high – income countries, while it was 37 per 1000 women in the low – and middle – income countries of the world.[21] Almost 88 % of all abortions occur in low – and middle – income countries.[21] In high – income countries the abortion rate has declined between 1990 – 1994 and 2010 – 2014, while in low – and middle – income countries it has not been changed in the same period of time.[22] There is a high level of unsafe abortions in the countries with stricter abortion restrictive laws compared to the countries with less restrictive laws.[17]

Induced abortions might negatively affect women's health even if they are safe.[23] One of the important negative outcomes of induced abortions is the occurrence of mental health problems, including depression, anxiety and suicidal behavior.[23,24] The physical side effects might follow an abortion like as abdominal pain, bleeding, vomiting and diarrhea.[25] Although, there are more serious complications which might be ''heavy or persistent bleeding, infection or sepsis, damage to the cervix and other organs''.[25] Additionally, some studies reported that

induced abortion is increasing the risk of breast cancer development.[26,27] However, there are studies concluding that induced abortion is not increasing the risk of breast cancer development.[28,29]

1.4 Emergency contraception

"Emergency contraception (EC) refers to the methods of contraception that include the use of any drug or device to prevent pregnancy after unprotected sexual intercourse."[4] "The EC is considered as a second chance to prevent undesired pregnancy when contraception fails or in the case of unprotected sexual intercourse."[4] There are four methods of the EC including 1) emergency contraception pills (ECP) containing ulipristal acetate (UPA), 2) ECP containing levonorgestrel (LNG), 3) combined emergency contraception pills (COC) and 4) copper bearing IUD.[4] The main mode of action for ECPs containing UPA or LNG is to inhibit or delay the process of ovulation,[30] and for IUDs is – to prevent pregnancy through harming sperm function by copper ions.[31] The EC cannot have abortifacient effect or harm a developing embryo.[4]

The indications for the EC involve "sexual assault, unprotected intercourse, condom breakage and missed or late doses of other types of contraceptives."[32] After unprotected intercourse or in case of contraceptive failure, the risk of pregnancy might be decreased by using the EC methods within the first 120 hours, and EC methods are most effective when used up to 24 hours.[32] The EC containing UPA can have pregnancy rate of 1.2 % and for the EC with LNG it ranges from 1.2 % to 2.1 %.[33,34] The pregnancy rate of copper bearing IUD is 0.09 % and this method is considered as the most effective EC method.[35]

According to the American Society for Emergency Contraception, the use of EC methods is underutilized in most of the countries.[36] Globally, only about 1 % of all reproductive age women use EC methods.[36]

1.5 Barriers to EC use

Multiple factors affect the use of EC methods among reproductive age women. An important barrier to the use of EC is the perception of EC methods as abortifacient, also women mistakenly think that EC has long-term effects on reproductive function of women and general health. [37,38,39,40] Another major barrier is poor provider attitude to the use of EC.[38,40,41] A study found that women form Asia and South Asia were worried for negative feedback form providers and getting stigmatized by providers when they sought the EC methods.[38]

Other barriers to EC use are availability and affordability of EC methods.[42,43] In many countries all EC methods were banned until 1990s, when WHO started the promotion of the EC.[44] According to the International Consortium for Emergency Contraception, as of 2018, there are 147 countries which have at least one EC pill brand registered in the country, from which 60 countries, including Armenia, have EC pills on the essential medicine lists.[45] However, there are 47 countries in the word with no EC pill brands registered.[45]

The low affordability of EC methods, particularly in low- and middle-income countries may prevent women from using the EC.[45] For example, a survey conducted in 1996, then in 2002 with the sample of American-African women revealed that in 2002 all reported barriers to EC use declined and cost had become the first perceived barrier.[46]

Another barrier to the use of EC are refusals by pharmacists to dispense the EC methods.[47] These refusals are mostly based on personal beliefs.[48] A study conducted in the US,

in 2006, found that pharmacists thought that dispensing of the EC is an ‘’immoral act’’ and they do not want to participate in it.[47]

1.6 Side effects of EC

The most frequently observed side effects for LNG and UPA containing pills are nausea, vomiting and headaches.[49,50] Other side effects that might occur by using of LNG and UPA pills include abnormal menstrual bleeding, abdominal pain, emotional disturbances and acne.[51,52,53,54]

The IUDs might cause histologic changes in the endometrium. Biochemical features also might occur after the use of IUDs.[53,55]

1.7 Determinants of EC prescription

Multiple studies explored knowledge, attitude and practice (KAP) of emergency contraceptives among obstetrician – gynecologists and primary health care physicians. Studies found that the knowledge level and the attitude of physicians towards the EC are associated with prescription rates. For example, a study conducted in the US, revealed that health care providers with good level of knowledge, positive attitude towards the EC, and longer years of experience were more likely to prescribe EC methods.[56] A study performed in 2009 in the US investigated and reported that younger gynecologists are more knowledgeable on EC, while another study conducted in 2012 in Egypt found that older physicians have higher level of knowledge on EC methods.[56,57] Additionally, studies conducted in the US and Brazil showed that physicians have lack of knowledge on the prescription dosage and regimen of the EC and that they think that EC methods are abortifacient; most effective methods of EC are little known and rarely provided.[58,59] A study conducted among the US family physicians found that the physicians who insert IUDs

have better knowledge about it and are more likely to believe that the patients are open to discuss IUDs.[60]

1.8 Situation in Armenia

During the Armenian Demographic and Health Survey (ADHS) 2015 – 2016, 57 % usage of any contraception method was found among Armenian married women in reproductive age. Use of modern and traditional methods were almost equal (28.0 % and 29.2 % respectively).[61]

The most widely used methods included withdrawal (25.0 %), which is a traditional method of contraception and male condoms (15.0 %).[61] The trend in contraception use was fluctuating from 2000 to 2015-16. The percent of use of contraceptive methods, including traditional methods, has dropped from 61.0 % in 2000 to 57.0 % in 2016.[62] However, the knowledge on the EC has increased over the past five years.[61] According to ADHS 2015-2016, 40.1 % of all Armenian women and 46.4 % of all currently married women have heard of the EC.[61] ADHS 2005 reported that 0.9% of Armenian women in reproductive health had used the EC methods.[63]

Among Transcaucasian countries Armenia has the second highest abortion rate. In 2015, abortion rate per 1000 reproductive age women in Georgia and Azerbaijan were 39.05 and 13.77, respectively.[64] 2015 - 2016 ADHS revealed that among 15 – 44 years old women the general abortion rates (GAR) were 16 in urban areas and 28 in rural areas of Armenia per 1000 women.[61] The survey of 2010 found that GAR among in the same age range were 27 in urban and 29 in rural areas per 1000 women.[65] Based on these numbers, it can be concluded that abortions have declined in recent times in Armenia. Yet, 13 % of currently married women had an unmet need of contraception in 2016 in Armenia.[61]

Two types of LNG (Postinor, Eskapel) containing EC and copper bearing IUDs are registered in Armenia and available in pharmacies.[66] The prices of LNG pills range from 3000 to 6000 AMD, while for copper bearing IUDs the price fluctuate from 1500 to 11000 AMD.[67]

No studies have explored KAP of emergency contraceptives among obstetrician-gynecologists in Armenia. Studies among primary health care providers, which were conducted in the countries geographically close to Armenia (Russia, Turkey) found knowledge gaps regarding the provision of modern contraceptives.[68,69] In 2007, a study conducted in Lori Marz, Armenia, qualitatively assessed ‘’beliefs and attitudes of rural nurses toward modern contraceptive methods’’ and revealed that the modern contraceptive methods were not reliable for the nurses and they had misunderstanding regarding these methods.[70]

2. Study aim and research questions

This study aim is to investigate KAP of the EC among obstetrician - gynecologists practicing in primary health care facilities in Yerevan. The study is set to answer the following questions:

- What is the level of KAP regarding the EC among obstetrician – gynecologists practicing in primary health care facilities of Yerevan?
- What are the barriers to prescribing the EC among obstetrician – gynecologists practicing in primary health care facilities of Yerevan?
- Is there an association between KAP related to the EC among obstetrician – gynecologists practicing in primary health care facilities of Yerevan?
- Is there an association between socio-demographic factors (age, gender), average workload, years of experience, having been trained on the modern contraception topic

during the last 5 years and KAP of obstetrician – gynecologists practicing in primary health care facilities of Yerevan?

3.Materials and method

3.1 Study design

To answer the research questions, the study team will utilize analytical cross-sectional study design. This study design has been chosen because it is relatively inexpensive and less time consuming.[71]

3.2 Study population

The target population of this study includes obstetrician - gynecologists practicing in Yerevan, Armenia. According to the Ministry of Health (MOH) November 14, 2013 order 47 – N, which specifies the responsibilities of physicians practicing in primary health care facilities, obstetrician – gynecologists are responsible for prescription of the contraceptive methods.[72] Therefore, the obstetrician – gynecologists at primary health care facilities located are selected as the study population for this research.

The inclusion criteria will be being an obstetrician - gynecologist and working in primary health care facilities of Yerevan. The exclusion criteria will be inability to read and understand in Armenian.

3.3 Study instrument

The questionnaires which have been used in the previous surveys of assessing KAP on the EC among obstetrician - gynecologists were used in order to develop the survey

questionnaire.[73,74] The final questionnaire consists of 5 domains and comprises 31 questions. The main domains of the questionnaire include 1) knowledge on the EC (13 questions); 2) attitude towards the EC (6 questions); 3) practice of prescribing EC (3 questions); 4) barriers to prescribing of the EC (3 questions) and 5) demographic information of the respondents (6 questions). Knowledge assessing questions are adjusted to the current guideline of ‘’Medical criteria on prescription of modern contraception methods to prevent unintended pregnancies’’.[75] The guideline is approved by the MOH and is targeted to obstetrician – gynecologists and family physicians practicing in primary health care facilities.[75] The final questionnaire was adapted to the local context and translated into Armenian. It was pre-tested among 5 obstetrician-gynecologists.

3.4 Sample size calculation and sampling strategy

The study sample size was calculated according to the two-sample comparison of means for cross – sectional studies. The sample size should be sufficient to detect a difference of 0.4 in the practice between male and female obstetrician-gynecologists. Based on the pre-test results, the prescription rate is 5 per year on average and the value of standard deviation of mean practice score is estimated 1. 95 % confidence interval and 80 % study power were taken into consideration in the sample size calculation.

$n_1 = (Z_{\alpha/2} + Z_{\beta})^2 * 2 * \sigma^2 / d^2$

$n_1 = (1.96+0.84)^2 * 2 * (1)^2 / (0.4)^2 = 98$

$n = n_1 + n_2 = 98 + 98 = 196$

In order to address the cluster homogeneity bias the design effect coefficient of 1.2 was taken into consideration while calculating the final sample size.

196 * 1.2 = 235.2 = 236

According to the annual report 2017 of the National Institute of Health of Armenia, the total number of obstetrician – gynecologists practicing in the primary health care facilities of Yerevan is 240.[76] It is expected that the census of all obstetrician – gynecologists practicing in the primary health care facilities, will generate the desired sample size, with the estimated response rate of 91%. The response rate is taken from the previous study conducted in Yerevan among general practitioners using self-administrated interview mode.[77]

3.5 Data collection

Data will be collected by the study assistant. The interviews will be self-administered and will take place in the obstetrician - gynecologist's office. The study assistant will be present in the obstetrician - gynecologist's office while she/he is filling in the questionnaire and will collect them after completion. This will be done in order to be sure that the obstetrician – gynecologists' responses reflect their true knowledge and control for possible cross-checking of information from different sources.

All study participants will provide oral consent for participation in the study. Each study participant will be assigned a unique ID number.

3.6 Statistical analysis

The main dependent variable of the study will be practice of prescribing EC. The independent variables are knowledge and attitude scores, age, years of experience, gender, average workload, and having been trained on the modern contraception topic during the last five years.

Data will be entered through SPSS software. Single data entry will be done. Data will be cleaned through comparing 10% of questionnaires with the entered data and running frequency statistics to find outliers.

The statistical analysis will be conducted using STATA 13 software. Practice on prescribing EC will be measured by asking ‘’How many times have you prescribed EC methods in the last year?’’ which is open ended question. The variable will be treated as continuous. The question asking about most commonly prescribed type of the EC will be analyzed descriptively.

To come up with the knowledge score, all right answers will be coded as 1, whereas the wrong answers and ‘’I do not know’’ response option will score 0. All 13 questions of knowledge domain will be summed up in order to receive the knowledge score of each participant. Since the first question of the knowledge domain has two correct response options, the highest possible score for this domain is 14.

For the attitude score, “positive” responses will be coded as 1, while “No” and ‘’Uncertain’’ responses will score 0. The responses to all six questions of the attitude domain will be summed up to get the total attitude score for each participant. The highest score for the attitude domain is 6.

The predictive model will be used. The student investigator will run descriptive statistics on all independent and dependent variables. Univariate linear regression will be run

between dependent and all independent variables to detect unadjusted associations. All the variables that are significantly associated with the outcome variable will be included in multivariate linear regression, while controlling for the covariates. Collinearity will be checked between the independent variables.

3.7 Study variables

Dependent

Prescription of EC methods (continuous)

Independent

Knowledge score (continuous)

Attitude score (continuous)

Age (continuous)

Gender (binary)

Years of experience (continuous)

Workload (continuous)

Having been trained on the modern EC topic (binary)

3.8 Ethical considerations

The study was approved by the Institutional Review Board (IRB) of the American University of Armenia. The permission from Yerevan municipality will be obtained since the primary health care facilities are under the municipality control. Additionally, a permission will be obtained from the heads of the primary health care facilities. All study participants prior to the interview will be provided an oral consent form and will be informed that the participation in the

study is voluntary and they can stop completing the survey at any time. Any identifiable information will not be collected from the study participants; only ID numbers will be written on the questionnaires. Only the research team will have access to the study database.

4. Logistical considerations

4.1 Work plan overview

The proposed study will last four months and will include interviewer training, data collection, data entry, analysis and the final report writing. Table 1 provides detailed information on the study timeline.

4.2 Resources/Personnel

The study team will include a study coordinator who will coordinate and participate in the data collection, entry, and analysis of the study data, and the study assistant who will distribute/collect the questionnaires and do the data entry. The project coordinator will be responsible for creating the study protocol and managing the data collection including the interviewer training, preparation of the final report and other administrative activities.

4.3 Resources/ Budget

Implementation of this project will require financial expenditures. The estimated budget consists of personnel and administrative expenses. The salaries of the research team were calculated according to the rates of International and non-governmental organizations which are acting in the Armenian market. The study assistant will be paid for per completed interview or data entry, and the project coordinator will receive monthly salary. The total budget of the

proposed study is estimated to be 1.834.400 AMD. Table 2 contains detailed description of the expenses and budget organization.

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Appendices

Appendix 1: Questionnaire in English

ID: _____

Interview date: _____/_____/_____

Beginning of the interview: _____:_____

Instructions for completing the questionnaire

Dear Participant, please, carefully read each question and all the response options. Choose the response option that best represents your response and cycle the number next to the response option. Some questions should be answered by words or by a number. There are blank lines next to these questions for you to write your responses.

Please, follow the instructions in ***Italics.*** These instructions will help you to fill in the questionnaire and indicate the questions to skip for your particular case.

Fill in the questionnaire with a pencil. If you make a mistake or change your mind, erase completely and cycle the correct number. Please, answer **ALL THE QUESTIONS.**

Example

In many questions you will be asked to choose and cycle response options provided in tables. The following example shows how to answer the questions in tables.

Do you exercise regularly?	1) Yes	0) No	77) I do not know

Answer the questions starting from here!

Part #1: Knowledge on emergency contraception

Dear Participant, the following questions are related to the knowledge on emergency contraception. Please, cycle your preferred option.

1.What methods are considered as the emergency contraception (EC) methods? ***(Please, cycle all that apply)***

0) Hormone bearing intrauterine devices (IUD)

1) Copper bearing IUD

2) Injectable contraceptives

3) Levonorgestrel containing contraceptive pills

4) Sterilization

2.	Is the EC is more effective than traditional methods of contraception?	1) Yes	0) No	77) I do not know
3.	Is the sooner use of EC is more effective?	1) Yes	0) No	77) I do not know
4.	Is the EC an abortifacient?	1) Yes	0) No	77) I do not know
5.	Is there fetal anomalies with use of EC?	1) Yes	0) No	77) I do not know
6.	Is physical examination (blood pressure measurement) mandatory before inserting copper bearing intrauterine devices (IUD)?	1) Yes	0) No	77) I do not know
7.	Is physical examination (blood pressure measurement) mandatory before prescribing levonorgestrel containing EC?	1) Yes	0) No	77) I do not know
8.	Is pelvic examination mandatory before prescribing levonorgestrel containing EC?	1) Yes	0) No	77) I do not know
9.	Is pelvic examination mandatory before inserting copper bearing IUD?	1) Yes	0) No	77) I do not know

10.	Are EC pills effective, when taken up to 72 hours after unprotected sexual intercourse?	1) Yes	0) No	77) I do not know
11.	Are copper bearing intrauterine devices (IUD) are effective when taken up to 120 hours after unprotected sexual intercourse?	1) Yes	0) No	77) I do not know
12.	Can copper bearing IUDs be inserted right after of a birth delivery?	1) Yes	0) No	77) I do not know
13.	Can copper bearing IUDs be used in women with no history of previous pregnancy?	1) Yes	0) No	77) I do not know

Part #2: Attitude towards emergency contraception

Dear Participant, the following statements are related to your attitude towards the EC. Please, cycle the preferred option for you.

14.	The EC is accessible.	1) Yes	0) No	99) Uncertain
15.	The EC is inexpensive.	1) Yes	0) No	99) Uncertain
16.	The EC might not affect pregnancy in the future.	1) Yes	0) No	99) Uncertain
17.	The EC is harmless to women body.	1) Yes	0) No	99) Uncertain
18.	Benefits of the EC outweigh its risks.	1) Yes	0) No	99) Uncertain
19.	The EC should be discussed with all sexually active women.	1) Yes	0) No	99) Uncertain

Part #3: Practice of emergency contraception

Dear Participant, the following questions are related to your practice of emergency contraception prescribing. Please, cycle the appropriate option for you OR please, specify otherwise.

20. Have you ever prescribed the EC (EC pills or copper bearing IUD)?

1) Yes

0) No ⟶ ***Go to question #23***

77) I do not know

21. What type of the EC do you prescribe most often?

0) Emergency contraception pills

1) Copper bearing IUD, as an EC method

3) Both

22. How many times have you prescribed the EC in the last year?

_____

Part #4: Barriers to prescribing of emergency contraception

Dear Participant, the following questions are related to the barriers to prescribing of the EC.

Please, cycle the preferred option for you.

23.	Do you feel uncomfortable prescribing the EC for ethical reasons?	1) Yes	0) No	99) Uncertain
24.	Are you concerned about birth defects or other side effects of the EC?	1) Yes	0) No	99) Uncertain
25.	Are you reluctant to prescribe the EC because of inexperience with its use?	1) Yes	0) No	99) Uncertain

Part #5: Demographic information

Dear Participant, the following questions are related to your demographics. Please, cycle your preferred option OR please, specify otherwise.

26. How old are you?

_____

27. What is your gender?

0) Female

1) Male

28. How many years do you work as a practicing obstetrician – gynecologist?

_____

29. On average how many patients do you treat during a workday?

_____

30. During the last 5 years, have you participated in a training on the modern contraception topic?

1) Yes ***(Please specify)*** _____

0) No ⟶ ***End the interview***

77) I do not know/ I do not remember

31. Did the modern contraception training(s) cover the EC topic?

0) Yes, all

1) Yes, some ***(Please specify the number of trainings)*** _____

2) No

77) I do not know/ I do not remember

Thank you for your participation!

End of interview _____:_____

Interview duration (in minutes) _____

Appendix 2: Questionnaire in Armenian

Հարցաթերթ

ՏՀ————————————

Հարցազրույցի ամսաթիվ ———/———/———

Հարցազրույցի սկիզբ ————:————

<u>Հրահանգներ հարցաթերթը լրացնելու համար</u>

Հարգելի Մասնակից, խնդրում եմ ուշադրությամբ կարդացե՛ք յուրաքանչյուր հարցը և պատասխանների համար նախատեսված տարբերակները։ Ընտրե՛ք այն տարբերակը, որն ամենաշատն է արտահայտում ձեր կարծիքը և շրջանակի մեջ վերցրեք այդ տարբերակի կողքին գտնվող թիվը։ Որոշակի հարցեր կարիք կլինի պատասխանել բառերով կամ թվերով։ Յուրաքանչյուր այդպիսի հարցի մոտ առկա է դատարկ տող, որտեղ Դուք կարող եք գրել Ձեր պատասխանը։

Հետևե՛ք հրահանգներին։ Հրահանգները գրված են ***շեղատառերով և մգեցված են***։ Դրանք կօգնեն Ձեզ լրացնել հարցաթերթը և տարբերակել այն հարցերը, որոնք անհրաժեշտության դեպքում պետք է բաց թողնել։

Հարցաթերթը լրացրեք մատիտով։ Եթե պատասխանելու ընթացքում սխալ տարբերակ կընտրեք, այն ամբողջությամբ ջնջեք և շրջանակի մեջ վերցրեք ճիշտ տարբերակը։ Խնդրում եմ, պատասխանե՛ք ***ԲՈԼՈՐ ՀԱՐՑԵՐԻՆ։***

<u>Օրինակ</u>

Մի շարք հարցերում Դուք պետք է ընտրեք և շրջանակի մեջ վերցնեք աղյուսակների մեջ ներկայացված տարբերակները։ Ներքոհիշյալ օրինակը ցույց է տալիս ինչպես պատասխանել նմանատիպ հարցերին։

Դուք կանոնավոր կերպով մարզվում է՞ք։	(1) Այո	0) Ոչ	77) Չգիտեմ

Այստեղից սկսած պատասխանե՛ք հարցերին։

I. Շտապ բեղմնականխիչ միջոցների մասին գիտելիքներ

Հարգե՛լի Մասնակից, ներքոհիշյալ հարցերը վերաբերում են շտապ բեղմնականխիչ միջոցների (ՇԲՄ) մասին գիտելիքներին։ Խնդրում եմ, շրջանակի մեջ վերցնել Ձեր նախընտրած տարբերակը։

1. Ներքոհիշյալ մեթոդներից որո՞նք են համարվում շտապ բեղմնականխիչ միջոցներ (ՇԲՄ)։ ***(Շրջանակի մեջ վերցնել բոլոր ճիշտ պատասխանները)***

0) Հորմոն պարունակող ներարգանդային պարույրներ (ՆԱՊ)

1) Պղինձ պարունակող ՆԱՊ

2) Ներարկվող հակաբեղմնավորիչներ

3) Լևոնորգեստրել պարունակող հակաբեղմնավորիչ հաբեր

4) Կանանց ամլացում

2.	Արդյո՞ք ՇԲՄ – ները ավելի արդյունավետ են քան ավանդական հակաբեղմնավորիչ միջոցները։	1) Այո	0) Ոչ	77) Չգիտեմ
3.	Արդյո՞ք ՇԲՄ-ների հնարավորինս շուտ ընդունումն ավելի արդյունավետ է։	1) Այո	0) Ոչ	77) Չգիտեմ
4.	Արդյո՞ք ՇԲՄ-ներն ունեն վիժում առաջացնող ազդեցություն։	1) Այո	0) Ոչ	77) Չգիտեմ
5.	Կարող է՞ ՇԲՄ-ների օգտագործումն առաջացնել ֆետալ անոմալիաներ։	1) Այո	0) Ոչ	77) Չգիտեմ
6.	Արդյո՞ք ֆիզիկական զննումը (զարկերակային ճնշման չափումը) պարտադիր է պղինձ պարունակող ՆԱՊ-ի տեղադրումից առաջ։	1) Այո	0) Ոչ	77) Չգիտեմ

7.	Արդյո՞ք ֆիզիկական զննումը (զարկերակային ճնշման չափումը) պարտադիր է լևոնորգեստրել պարունակող ՇԲՄ-ների նշանակումից առաջ:	1) Այո	0) Ոչ	77) Չգիտեմ
8.	Արդյո՞ք գինեկոլոգիական զննումը պարտադիր է լևոնորգեստրել պարունակող ՇԲՄ-ների նշանակումից առաջ:	1) Այո	0) Ոչ	77) Չգիտեմ
9.	Արդյո՞ք գինեկոլոգիական զննումը պարտադիր է պղինձ պարունակող ՆԱՊ-ի տեղադրումից առաջ:	1) Այո	0) Ոչ	77) Չգիտեմ
10.	Արդյո՞ք շտապ բեղմնականխիչ հաբերը արդյունավետ են չպաշտպանված սեռական հարաբերությունից հետո 72 ժամվա ընթացքում ընդունելու պարագայում:	1) Այո	0) Ոչ	77) Չգիտեմ
11.	Արդյո՞ք պղինձ պարունակող ՆԱՊ-ը արդյունավետ է չպաշտպանված սեռական հարաբերությունից հետո 120 ժամվա ընթացքում տեղադրելու պարագայում:	1) Այո	0) Ոչ	77) Չգիտեմ
12.	Հնարավոր է՞ արդյոք պղինձ պարունակող ՆԱՊ-ը տեղադրել կնոջ օրգանիզմ անմիջապես ծննդաբերությունից հետո:	1) Այո	0) Ոչ	77) Չգիտեմ
13.	Կարող ե՞ն պղինձ պարունակող ՆԱՊ-երը օգտագործվել նախկինում հղիության պատմություն չունեցող կանանց մոտ:	1) Այո	0) Ոչ	77) Չգիտեմ

II. Շտապ բեղմնականխիչ միջոցների նկատմամբ վերաբերմունքը

Հարգե՛լի Մասնակից, ներքոհիշյալ պնդումները վերաբերում են շտապ բեղմնականխիչ միջոցների (ՇԲՄ) նկատմամբ Ձեր վերաբերմունքին: Խնդրում եմ, շրջանակի մեջ վերցնել Ձեր նախընտրած տարբերակը:

14.	ՇԲՄ-ները հասանելի են:	1) Այո	0) Ոչ	99) Վստահ չեմ
15.	ՇԲՄ-ները մատչելի են:	1) Այո	0) Ոչ	99) Վստահ չեմ
16.	ՇԲՄ-ները չեն կարող ազդել հետագա հղիությունների վրա:	1) Այո	0) Ոչ	99) Վստահ չեմ
17.	ՇԲՄ-ները անվնաս են կնոջ օրգանիզմի համար:	1) Այո	0) Ոչ	99) Վստահ չեմ
18.	ՇԲՄ-ների օգուտը գերակշռում է ռիսկին:	1) Այո	0) Ոչ	99) Վստահ չեմ

19.	ՇԲՄ-ները պետք է քննարկվեն վերարտադրողական տարիքում գտնվող բոլոր կանանց հետ:	1) Այո	0) Ոչ	99) Վստահ չեմ

III. Գործելակերպ

Հարգե՛լի Մասնակից, ներքոհիշյալ հարցերը վերաբերում են շտապ բեղմնականխիչ միջոցների (ՇԲՄ) նկատմամբ Ձեր գործելակերպին: Խնդրում եմ, շրջանակի մեջ վերցնել Ձեզ համապատասխանող տարբերակը ԿԱՄ մանրամասնել հատկացված վայրում:

20. Երբևիցե՞ նշանակել եք ՇԲՄ-ներ (շտապ բեղմնականխիչ հաբ կամ պղինձ պարունակող ՆԱՊ):

1) Այո

0) Ոչ ⟶ ***Անցնել հարց 23-ին***

77) Չգիտեմ/ Չեմ հիշում

21. Ո՞ր ՇԲՄ-ն եք նշանակում ավելի հաճախ:

0) Շտապ բեղմնականխիչ հաբեր

1) Պղինձ պարունակող ՆԱՊ, միայն որպես ՇԲՄ միջոց

3) Երկուսն էլ

22. Վերջին մեկ տարվա ընթացքում քանի՞ անգամ եք նշանակել ՇԲՄ-ներ:

_____

IV. Շտապ բեղմնականխիչ միջոցների դուրս գրման ընթացքում խոչընդոտները

Հարգե՛լի Մասնակից, ներքոհիշյալ հարցերը վերաբերում են շտապ բեղմնականխիչ միջոցների (ՇԲՄ) դուրս գրման ընթացքում խոչընդոտներին: Խնդրում եմ, շրջանակի մեջ վերցնել Ձեր նախընտրած տարբերակը:

23.	ՇԲՄ-ներ նշանակելիս, էթիկական պատճառներից ելնելով, Դուք որևէ՞ անհարմարավետության զգացում ունենում եք:	1) Այո	0) Ոչ	99) Վստահ չեմ
24.	ՇԲՄ-ներ նշանակելիս, պտղի բնածին արատների կամ այլ կողմնակի ազդեցությունների վերաբերյալ մտահոգություն ունենում է՞ք:	1) Այո	0) Ոչ	99) Վստահ չեմ
25.	Արդյո՞ք դժկամությամբ եք նշանակում ՇԲՄ-ներ, դրանց նշանակման փորձի բացակայության պատճառով:	1) Այո	0) Ոչ	99) Վստահ չեմ

V. Ժողովրդագրական տեղեկություններ

Հարգե՛լի Մասնակից, ներքոհիշյալ հարցերը վերաբերում են Ձեր ժողովրդագրական տվյալներին: Խնդրում եմ, շրջանակի մեջ վերցնել Ձեզ համապատասխանող տարբերակը ԿԱՄ մանրամասնել հատկացված վայրում:

26. Քանի՞ տարեկան եք:

_____

27. Նշե՛ք Ձեր սեռը:

0) Իգական

1) Արական

28. Քանի՞ տարի եք աշխատում որպես մանկաբարձ – գինեկոլոգ։

_____

29. Մեկ աշխատանքային օրվա ընթացքում, միջինում քանի՞ հիվանդ եք ընդունում։

_____

30. Վերջին 5 տարների ընթացքում մասնակցե՞լ եք ժամանակակից հակաբեղմնավորիչ միջոցների վերաբերյալ որևէ մասնագիտական դասընթացի։

1) Այո ***(նշել դասընթացի/ների անունը)*** _____

0) Ոչ⟶ ***Հարցաթերթի ավարտը***

77) Չգիտեմ/ Չեմ հիշում

31. Այդ դասընթացը/ները ներառել ե՞ն ՇԲՄ-ների վերաբերյալ թեմաներ։

0) Այո, բոլորը ներառել են

1) Այո, որոշները ներառել են ***(նշել այդպիսի դասընթացների թիվը)***_____

2) Ոչ, չեն ներառել

77) Չգիտեմ/ Չեմ հիշում

Շնորհակալություն այս հարցմանը մասնակցելու համար:

Հարցազրույցի վերջ _____:_____

Հարցազրույցի տևողությունը _____ րոպե

Appendix 3: Consent form in English

American University of Armenia

Gerald and Patricia Turpanjian School of Public Health

International Review Board #1

Consent form

Hello. My name is Mane Khalatyan and I am a last year student of the Master of Public Health program at Gerald and Patricia Turpanjian School of Public Health of the American University of Armenia. As part of my thesis project and with the support of the faculty members I am conducting a study to investigate the emergency contraception – related knowledge, attitude and practice of obstetrician – gynecologists practicing in the primary health care facilities in Yerevan. I am going to approach to all obstetrician – gynecologists practicing in the primary health care facilities in Yerevan. I am inviting you to participate in this study because you are one of them. This interview will last 8 – 10 minutes to complete. The questionnaire does not include personal or of a sensitive nature questions. I will give the questionnaire to you to complete as this is a self-administered interview. Your name will not be written on the questionnaire and not appear in any presentation of this project. I will not contact you again as the participation includes one-time interview. Your responses to the questions will contribute to this research but your answers will be combined with the answers of other participants.

Your participation in this research is voluntary. There is no penalty if you refuse to participate in this study. You may skip any question to answer or stop the interview any time you want to without any consequence. There are no financial compensation or personal benefits from participating in this study and there are no known risks to you resulting from your participation. Your honest answers will help us to obtain better knowledge about obstetrician – gynecologists'

emergency contraception – related knowledge, attitude and practice and provide evidence to the policy makers for further improvements in continuous education of physicians and plans for other interventions to decrease the abortion rate in Armenia. Only research team will have access to the answers provided by you. If after the interview you have questions regarding this study you can contact the principle investigator of this study Dr. Tsovinar Harutyunyan by email tsovinar@aua.am. If you feel you have not been treated fairly or think you have been hurt, while participating in this study, please contact Varduhi Hayrumyan, the Human Participants Protection Administrator of the American University of Armenia (+374 60) 61 26 17. Do you agree to participate? (Yes or No).

Thank you. If yes, could we continue?

Appendix 4: Consent form in Armenian

Հայաստանի Ամերիկյան Համալսարան

Ժիրայր և Փաթրիցիա Թրփանճեան Հանրային առողջապահության ֆակուլտետ

Գիտահետազոտական էթիկայի թիվ 1 հանձնաժողով

Իրազեկ համաձայնության ձև

Բարև Ձեզ, իմ անունը Մանե Խալաթյան է: Ես սովորում եմ Հայաստանի ամերիկյան համալսարանի Ժիրայր և Փաթրիշա Թրփանճեանների անվան Հանրային առողջապահության ֆակուլտետի ավարտական կուրսում: Ես, որպես իմ ավարտական գիտական աշխատանքի մի մաս և հետազոտական խմբի դասախոսների աջակցությամբ, իրականացնում եմ հետազոտություն, որի նպատակն է ուսումնասիրել Երևանի առողջության առաջնային պահպանման օղակներում աշխատող մանկաբարձ – գինեկոլոգների գիտելիքը, վերաբերմունքը և գործելակերպը շտապ բեղմնականխիչ միջոցների վերաբերյալ: Ես պատրաստվում եմ հարցազրույցի հրավիրել Երևանի առողջության առաջնային պահպանման օղակներում աշխատող բոլոր մանկաբարձ – գինեկոլոգներին: Ես հրավիրում եմ Ձեզ մասնակցել այս հարցազրույցին, քանի որ Դուք նրանցից մեկն եք: Այս հարցազրույցը կտևի ընդամենը 8 – 10 րոպե: Հարցաշարը չի պարունակում անհարմարավետություն առաջացնող կամ անձնական բնույթի հարցեր: Ես հարցաշարը կտրամադրեմ Ձեզ, որպիսի Դուք այն լրացնեք ինքնուրույն: Ձեր անունը չի գրվի հարցաթերթիկի վրա և չի

ներկայացվի ոչ մի զեկույցում: Ես չեմ պատրաստվում Ձեզ նորից անհանգստացնել, քանի որ մասնակցությունը ներառում է մեկանգամյա հարցազրույց: Ձեր պատասխանները կաջակցեն այս հետազոտությանը և կներկայացվեն մյուս մասնակիցների պատասխանների հետ ընդհանրացված:

Ձեր մասնակցությունն այս հետազոտությանը կամավոր է: Ձեզ ոչինչ չի սպառնում, եթե հրաժարվեք մասնակցել այս հետազոտությանը: Դուք կարող եք հրաժարվել պատասխանել ցանկացած հարցի կամ ցանկացած պահի ընդհատել հարցազրույցը առանց որևէ հետևանքի: Այս հետազոտությանը մասնակցելու համար Դուք որևէ ֆինանսական փոխհատուցում կամ պարգևատրում չեք ստանա: Դուք ոչ մի ռիսկի չեք դիմում ՝ մասնակցելով այս հետազոտությանը : Ձեր անկեղծ պատասխանները կօգնեն պատկերացում կազմել մանկաբարձ – գինեկոլոգների ՝ շտապ բեղմնականխիչ միջոցների մասին ունեցած գիտելիքի, վերաբերմունքի և գործելակերպի վերաբերյալ, արժեքավոր տեղեկություններ կտրամադրեն քաղաքականություն մշակողներին, որպիսի մանկաբարձ – գինեկոլոգների շարունակական կրթության դասընթացները կատարելագործվեն, ինչպես նաև պլանավորվեն և իրականցվեն ծրագրեր, որոնք կնպաստեն Հայաստանում հղիությունների արհեստական ընդհատման կանխարգելմանը: Ձեր կողմից տրամադրված տվյալները հասանելի կլինեն միայն հետազոտական թիմի անդամներին: Այս հետազոտության վերաբերյալ հարցեր ունենալու դեպքում կարող եք հետևյալ էլեկտրոնային փոստի միջոցով՝ tsovinar@aua.am, կապ հաստատել

հետազոտության համակարգող Ծովինար Հարությունյանին: Եթե կարծում եք, որ հարցազրույցի ընթացքում Ձեզ լավ չեն վերաբերվել և/կամ Ձեզ վնաս է հասցվել, կարող եք կապ հաստատել Հայաստանի ամերիկյան համալսարանի էթիկայի հանձնաժողովի համակարգող Վարդուհի Հայրումյանի հետ հետևյալ հեռախոսահամարով՝ (+374 60) 61 26 17: Համաձա՞յն եք մասնակցել («Այո» կամ «Ոչ»): Շնորհակալություն: Եթե այո, կարո՞ղ ենք սկսել:

Appendix 5: Interview script in English

Hello. My name is Mane and I am from the American University of Armenia. We are conducting a study with obstetrician – gynecologists practicing in primary health care facilities of Yerevan about emergency contraception – related knowledge, attitude and practice. We have selected you since you are an obstetrician – gynecologist working in a primary health care facility of Yerevan. Our interview will last only 8 – 10 minutes. Would you like to participate?

Appendix 6: Interview script in Armenian

Հարցազրույցի սեղմագիր

Բարև Ձեզ, իմ անունը Մանե է, ես Հայաստանի Ամերիկյան Համալսարանից եմ։ Մենք հետազոտություն ենք անցկացնում Երևանի առողջության առաջնային պահպանման օղակներում աշխատող մանկաբարձ – գինեկոլոգների շրջանում՝ շտապ բեղմնականխիչ միջոցների վերաբերյալ գիտելիքի, վերաբերմունքի և գործելակերպի ուսումնասիրման համար։ Մենք ընտրել ենք Ձեզ, քանի որ Դուք Երևանի առողջության առաջնային պահպանման օղակում աշխատող մանկաբարձ – գինեկոլոգ եք։ Մեր հարցազրույցը կտևի ընդամենը 8 – 10 րոպե։ Կցանկանայի՞ք մասնակցել։

Appendix 7: Journal form

Date DD/MM/YY	**Name of PHCF***	**ID of participant**	**Attempt number**	**Result**

Result

0-refusal

1-complete interview

2-respondent is ineligible

3-incomplete interview

4-interview was postponed

5-respondant is retired

6-other (specify)_____

***PHCF** – primary health care facility

Tables

Table 1. Timeline

	I month				II month				III month				IV month			
	W*1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Getting permission from the primary health care facilities	→	→														
Interviewer training			→													
Preparation of the questionnaires/ printing				→												
Data collection					→	→	→	→								
Data enterer training									→							
Data entry and cleaning									→	→						
Data analysis											→	→	→			
Final report preparation														→	→	→

*W- week

Table 2. Budget in Armenian Drams (AMD)

Budget item	Type of salary	Number of units	Amount	Total
Personnel				
Project coordinator	Fixed, monthly	4	200.000	800.000
Study assistant	Per completed questionnaire	240	1.500	360.000
Administrative				
Office room rent	Monthly	4	120.000	480.000
Paper cost and print	-	1440	10	14.400
Transportation	-	-	100.000	100.000
Communication costs (land line, mobile phones and internet)	Monthly	4	20.000	80.000
Total				**1.834.400**