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Knowledge, Attitude and Practice of Emergency Contraceptives among Female Summer Students in University of Gondar: Maraki Campus, Gondar, North-west Ethiopia. A cross-sectional study

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Abstract

Background: Magnitude of unsafe abortion can be avoided by using different contraceptive methods including emergency contraceptives.

Objective: Assessment of knowledge, attitude, and practice of emergency contraceptives among female students of Gondar university Maraki campus.

Methods: Institutional based cross-sectional studies conducted on 276 female students of Gondar University, Maraki campus in September 2017. The study participant selected using a stratified random sampling technique. The data was collected using pretested self-administered questionnaires. The collected data cleared and checked for completeness and analyzed by using SPSS version 20. Frequency and Percent were used to describe the findings.

Results:The majority of the participants 245(65.4%) had sexual partners in the past. Of the total participants, 84.3% have heard about an emergency contraceptive, 50.2 % of the participants heard from friends and relatives and among the participants, 68.9% had a positive attitude about Emergency contraceptive. Among the participants, 68.5% had unprotected sex and only 37.2% of those took emergency contraceptive after their sexual practice. Year of study, marital status, religion were associated with having the low practice of Emergency contraceptives in multivariate analysis.

Discussion – the study rebelled that significant change from the results of previous studies. Only 42.5% of the participants know when to take emergency contraceptive. About 68.9% have a positive attitude about emergency contraceptive. Only 32.7% of female students have used emergency contraceptives following unprotected sex.

Conclusion –the study shows that knowledge, attitude and practice towards EC were poor and very low at the University of Gondar female students of Maraki campus.

Keywords: Attitude, Knowledge, Practice, emergency contraceptive

Introduction

There are different family planning methods to prevent pregnancy that is unplanned or unwanted and emergency contraceptive methods play a big role and among these emergency contraceptive pills take the highest share. The emergency contraceptive pill was introduced in Ethiopia 17 years ago. Its main purpose is to prevent unplanned and unwanted pregnancy as well as to decrease the mortality of young women in the reproductive age group from unsafe abortions done to deal with this unwanted pregnancy. Even though the sales indicate that there is increasing use of the drug from year to year, researches show the number of unplanned and unwanted pregnancy and death from abortion is still high (1). Emergency contraception is a method used to prevent pregnancy after unprotected sexual intercourse that can be used immediately after intercourse but before the pregnancy established (2).

Unwanted pregnancy continues to be a major public health concern particularly among women 19-24 years of age (3). It has been estimated that almost two in every pregnancy worldwide are unplanned, as a result of not using effective contraceptive or failure of contraceptive method. Many adolescents are exposed to unwanted and unplanned pregnancies, as a result, they will have a major health problem like death due to unsafe abortion, infection, hemorrhage, even long term problems like infertility especially in developing

countries (4). Out of 500,000 maternal deaths that occur in each year throughout the world one quarter to one third is estimated as a result of the unsafe abortion procedures and almost all of these procedures are done in developing countries where one in 270 risk of deaths due to this procedure(5). Among those at high risk of having an unwanted pregnancy, such mothers obtained unsafe abortion (5). It is this group that the contraceptive and other preventive services found most difficult to reach. Many unwanted pregnancies occurred at adolescence when young women and her partner become sexually active before they are fully aware of the need for contraception or before they have access to service (6).

Emergency contraception is the only method that can be used within a short period of time after sexual intercourse, studies estimated nearly half of the induced abortions could be prevented if emergency contraceptive is available and used correctly (7).

Emergency contraception is an appropriate option for women and should be considered if condom usage is unsuccessful if diaphragm or cervical cups dislodged. The pill method of emergency contraception is taken within 72 hours of unprotected sexual intercourse and the next dose is taken 12 hours later and an intrauterine device can be used within five days of unprotected sex. It protects 75-85% of unintended pregnancy (7).

In the third world the number of couples and unmarried people, with the unmet need for contraception are estimated to 120,000 unwanted pregnancies. World health organization estimated that 84 million unwanted pregnancies occur annually worldwide. On average 46 million abortions take place every year and 19 million of them are performed in an unsafe condition. 68,000 women die every year as a result of unsafe abortion (10).

Unwanted pregnancy is known to be a serious problem in Ethiopia today although only limited data are accurately available. But findings from the global burden of disease study in 2013 showed that 19.6 % of maternal death is due to complications of abortion. (8)

In general Emergency contraception is not available everywhere in Ethiopia, even in available places, there is a problem in the appropriate use of it. The result of this study will be used to detect the problem and improve already available emergency contraceptive service to women that are in need of service thereby prevent unwanted pregnancy that leads to harmful consequences.

Methods and Materials

Study area

This study was conducted at the University of Gondar, Maraki campus which is located in kebele 18 far from the mid part of the town, piazza. Gondar is found North West of Ethiopia in the Amhara region stat 738 km from Addis Ababa. The Amhara regional state lies 9-14 degrees north and 36-40 degree east. The university has five campuses Maraki, Tewodros, Fasil, Graduating class, Tseda. The summer courses provided are mostly limited to teaching the courses being Geography, civic and ethical education, Biology, History & Heritage and Amharic.

Study design and period

The cross-sectional quantitative study design was utilized to undertake this study and the study was conducted from August 2017 to September 2017

Sample size and sampling technique

Assuming variation of knowledge, attitude and practice (KAP) among different years of study on emergency contraceptives, study subjects were conducted using the institutional cross-sectional quantitative technique.

The sample size was calculated using a single population proportion formula with a source of population less than 10,000, assuming knowledge of emergency contraceptive to be 37% which was taken from the previous study done on KAP of emergency contraceptive on students to get the possible sample size (1). The z value of 1.96% and a marginal error of 5% calculated as follows

$$\begin{aligned} N_i &= Z_{\alpha/2}^2 PQ / W^2 \\ &= (1.96)^2(0.37 \times 0.63) / (0.05)^2 \\ &= 358 \end{aligned}$$

Where

- Z-confidence of interval of 95%
- P-37% (prevalence of knowledge of EC)
- W-marginal error (5%)
- N_i-sample size

- ❖ By assuming non-respondent rate we add 5% correction factor from the final sample size, therefore the total sample size is

$$N_f + \frac{5(N_f)}{100} = 358 + \frac{5(358)}{100}$$

$$=376$$

Where

- N-source of population
- N_f -Final sample size

Assuming variation among the different students towards emergency contraceptives, the study subjects were selected using a stratified random sampling technique by considering each year of study as a stratum

Measurement

Self-administered questionnaires and interviews were conducted for the quantitative study. The questionnaire was adapted from the survey tools developed by JHPIEGO Maternal and Neonatal Health Program. It is divided into three parts. The first section inquired about personal data, including age, occupation, ethnicity, religion and educational level. The second part elicited information about Knowledge and attitude about Emergency Contraceptives. The third section assessed practice about Emergency Contraceptives. Each participant answered 5 attitude questions with 5 options to choose from. The participants' average attitude score ranged from 1.6 to 3.8 out of 5 with a mean value of 3.2 ± 0.5 . Those who positively responded to at least 60% of attitude questions (attitude score ≥ 3) were designated to have a positive attitude towards self-medication (approve emergency contraceptive) whereas those with attitude scores <3 are designated to have a negative attitude (disprove emergency contraceptive) towards self-medication.

Data collection process

Data were collected using self-administered questionnaires which were prepared in English and distributed to study subjects by data collectors and collected after they are filled

Data analysis

The collected data was cleared and checked for completeness and analyzed using SPSS version 20. Percent and odds ratios were used to describe the findings. Additionally, the result of the study was presented using different graphs, tables, charts, and texts.

Data quality control

The questionnaires were pretested on 15 students prior to the actual data collection outside the study area, cross-check for completeness on a daily basis. The collected data was cleared and checked for completeness and analyzed by using SPSS version 20.

Ethical considerations

Ethical clearance was obtained from the University of Gondar college of medicine and health sciences, School of medicine. All students who participate in the study were asked for their willingness.

RESULTS

Socio-demographic characteristics

All of 376 students approached by data collectors were willing to participate in the study; producing a response rate of 100%. Of the participants, 225 (59.8%) are fall in the age range of 18-24 years old. The participant's age ranges from 17-28 with a mean age of 22.85 ± 1.52 (Table; - 2).

Table.2-Socio-demographic and academics background of participants

Variables	Frequency (%)
Age	
Less than 18	31(8.2)
18-24	225(59.8)
24-28	120(31.9)
Department of study	
Geography	73(19.4)
Biology	91(24.2)
Civic and Ethical education	62(17.3)

History and Heritage	75(19.1)
Amharic	72(19.9)
Year of study	
First year	84(22.3)
Second year	161(44.8)
Third year	131(34.8)
Marital status	
Single	201(53.4)
Married	62(16.4)
In a relationship	99(26.3)
Separated	7(1.9)
Divorced	7(1.9)
Religion	
Orthodox	235(62.5)
Muslim	61(16.2)
Protestant	(17.8)
Others	(3.5)
Place of residency	
In campus	274(72.9)
Out of campus	102(27.1)

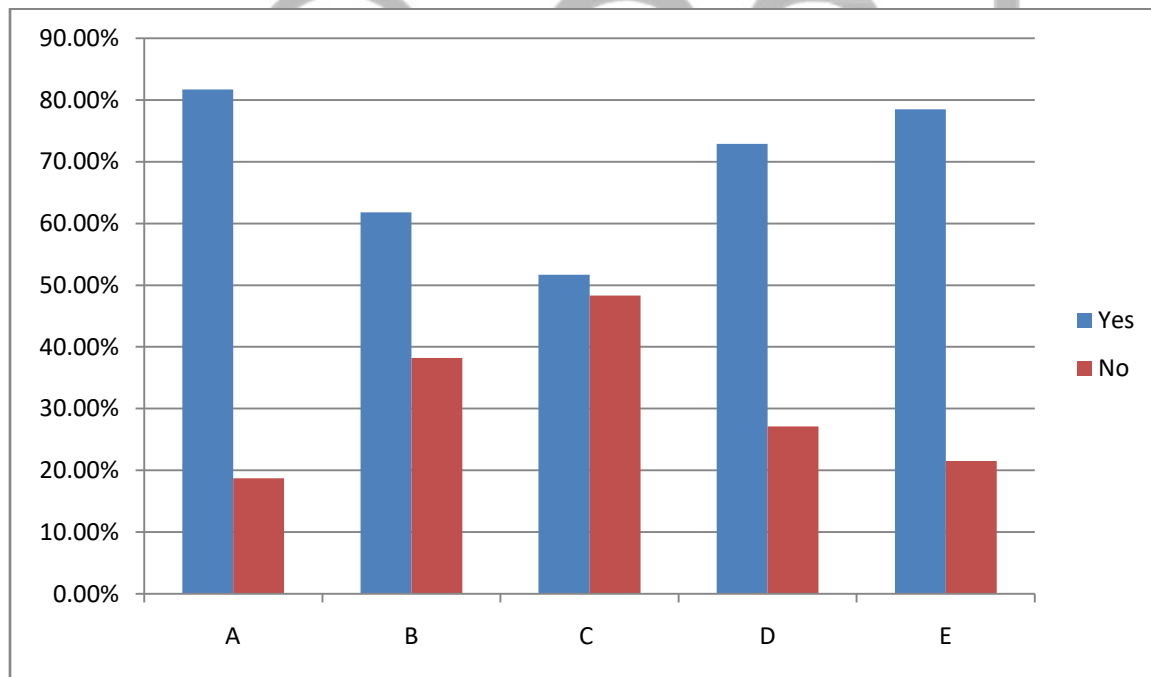
The sexual practice of the participants shows that 245(65.4%) of the participants had sexual partners in the past. Of those who had sexual partners, 223(78.2%) had sexual partners in the last twelve months. And from those who have sexual partners in the last twelve months, 163(65.7%), 60(24.2%) and 25(10.1%) participants have only one, two and more than two sexual partners respectively. They reported that 98 (36.2%) had their first sex at age below 18 years old, 170 (62.7%) had at an age range of 18-22 years old and the rest 3 (1.1%) of the participants had at the age above 22 years old.

Knowledge to Emergency contraceptives

Of the total participants, 84.3% have heard about emergency contraceptives. Friends and relatives are the main sources of information about emergency contraceptive of which 50.2% of participants heard about it followed by different Media being 27.1% of the information source. Health facilities, formal lectures, and other sources are also reported sources of information about emergency contraceptives by 19.9%, 0.9%, and 1.9% respectively. Among the participant, the first time to hear about emergency contraceptive majority heard in the duration of 1-5 years. The majority of the participants (83.6%) know pills as an emergency contraceptive followed by IUDs (8.8%) and others like implants and injections (7.6%).

Assessment of attitude towards self-medication

Among the participants, 117 (31.1%) had a negative attitude regarding emergency contraceptive practice and the rest of 259 (68.9%) had a positive attitude (fig 2).



A=Emergency contraceptives are effective in preventing unwanted pregnancy, B=Emergency contraceptives are forbidden by religion, C=Emergency contraceptive is a little abortion, D=Do you believe your partner accepts that you use this method, E=would you recommend emergency contraceptives to a friend or relative in a case of need?

Fig: - 2-Assessment of attitude towards self-medication

Regarding sources of emergency contraceptive majority (52.7%) of participant get from community pharmacies and the majority (42.7%) of participant knows the appropriate time to take emergency contraceptive after Unprotected sex (table 3).

Table:-3 Sources from where women get EC and their knowledge on the appropriate time to take EC after unprotected sex

Variables	Frequency (%)
Sources from where women get EC	
Students' clinic	56(17.7)
Health facilities*	88(27.8)
Community Pharmacies	167(52.7)
Supermarkets	6(1.9)
The appropriate time to take EC after unprotected sex	
Immediately after sex	117(36.9)
Within 72 hours	136(42.9)
Within 5 days	58(18.3)
Any time before the first day of next menses	6(1.9)

**hospitals, health centers, and clinics*

Private community pharmacies were the main source (62.9%) of the emergency contraceptive to get.

Regarding the recommendation to use emergency contraceptives, peers/friends take the main (39.3%) part.

(Fig: - 4)

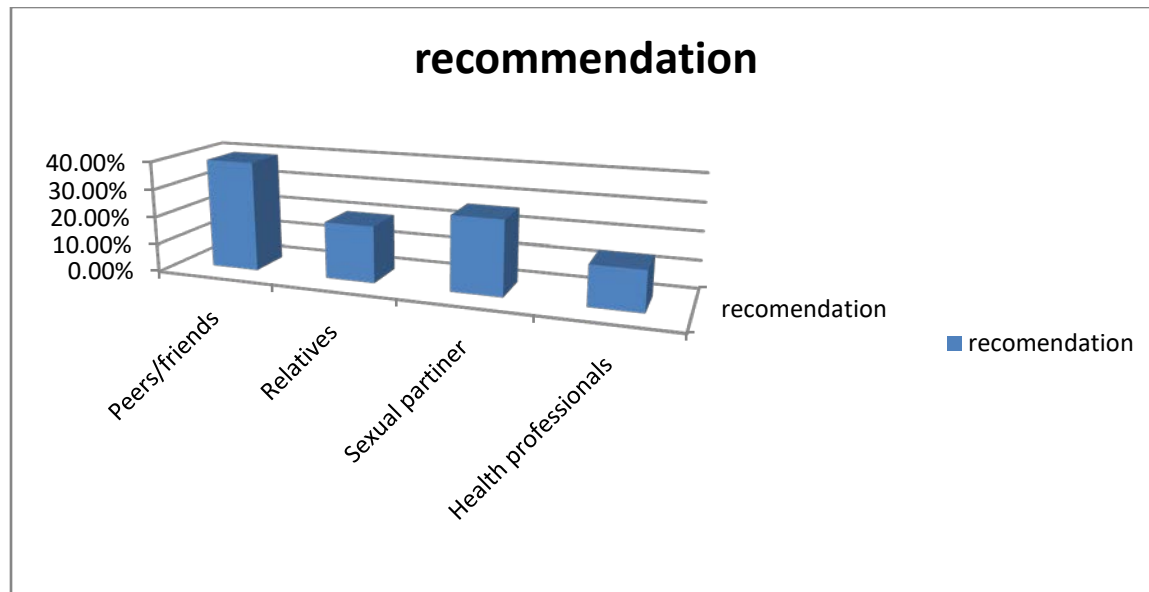


Fig:-4 who recommended the use of emergency contraceptive

The self-confession of participants about their knowledge about emergency contraceptives shows that 48.6% of the participants believe that they know well about emergency contraceptives and the rest 51.4% said they do not know about emergency contraceptives.

Assessment of practice of Emergency contraceptives

Among the participants, 63.3% had sexual intercourse in the past 12 months and from these 68.5% was unprotected sex. Only 37.2% of those who had unprotected sexual intercourse took emergency contraceptive after their sexual practice. Pills were the most common (119(85%)) type of emergency contraceptive taken after unprotected sex followed by IUDs (9.3%) and others like injectables and implants (5.7%).

Regarding the frequency of the Emergency contraceptive use in the past 12 months, 69.3% taken only once, 19.3% taken two times and the rest 11.4% taken more than two times. And among those who used an emergency contraceptive, 84.3% reported that it was effective.

Most participants (82.2%), reported that centers for emergency contraceptives and information about it are available as wanted and 44.0% of the participants reported that the centers are available for 8 hours daily

and 42.4% reported that available for 12 hours a day. The availability of the centers on the campus is reported that it is 41.0%.

The participants were asked about their future intention about emergency contraceptive use and 64.9% of them replied to use an emergency contraceptive for the future.

Binary logistic analysis was performed to identify associated factors for participants' Emergency contraceptives practice. Age and department of the study did not show a significant association with Emergency contraceptives in both univariate and multivariate analyses. However, years of study, marital status, religion were shown to be associated with having the low practice of Emergency contraceptives in multivariate analysis.

Discussion

Emergency contraception is a method used to prevent pregnancy after unprotected sexual intercourse that can be used immediately after intercourse but before the pregnancy established.

Knowledge about the Emergency contraceptive is essential and the cornerstone for both attitude towards and practice of emergency contraceptive use. In the current study, 84.3% have heard about, know well and identify emergency contraceptives. This shows great improvement from a study conducted in California showed 38% for the same case (3). This may be a high prevalence of unprotected sex in the area.

In other studies done in the USA, even though 98% of undergraduate students could identify the emergency contraceptive, only 52% of the students correctly understood the correct time to take emergency contraceptive after unprotected sex (4). The same is true in the current study that showed only 42.9% of the participants correctly known the right time to take an emergency contraceptive. These results can indicate the knowledge of the participants was incomplete and further interventions should be taken.

Other studies were done on knowledge about an emergency contraceptive also showed that not more than half of the participants have the correct knowledge on emergency contraceptive and the same is true in this study. Although they heard about and know emergency contraceptives, they do not correctly manage the right time to take and appropriate use of the emergency contraceptive (6, 8, and 9).

A study done at Addis Ababa University and Unity University College showed that 53% had a positive attitude towards emergency contraceptives (9). The result from our study also showed some near number

(68.9%), but the attitude showed some increment towards emergency contraceptives in our study. This may be due to peer pressures that are relevant to shift the participants' attitude since it is the most prevalent factor to let the participants take the emergency contraceptive.

The result from this study also showed that the attitude towards the emergency contraceptive is shifted to positive from a study done in Buea (Cameroon) in which 65% of participants have a negative attitude towards emergency contraceptives by thinking the practice is unsafe (7). Different interventions that done contraceptive methods popular and peer pressure might be factors for this complete shift of attitude in our study.

Although the knowledge and attitude towards emergency contraceptives are somewhat good, different studies conducted in Ethiopia and abroad showed that the practice of emergency contraceptive use is very poor. The study conducted in Nigerian university revealed that only 35.53% of the total study population reported the actual practice of emergency contraceptive (6). The result of another study done at Jimma University also showed that the practice is only 11.5% (8). Other studies were done at Addis Ababa University and Unity University College reported, the practice of emergency contraceptives is only 4.5% (9). The case is the same in the current study despite some increment in the practice of emergency contraceptives after unprotected sex which is 37.2%. These results can tell us the poor practice of emergency contraceptives is common in different countries and also in Ethiopia. Another study was done previously in Gondar also revealed that the practice of emergency contraceptive was too low (only one of 23 students) (10). We can see that the practice is very poor although there is some improvement in the current study from the previous one.

LIMITATIONS OF THE STUDY

Since the study design is cross-sectional and the study subjects are selected randomly, it may be of biases. The other limitation of this study is it was conducted at the summer vacation season, we cannot address all departments because the university has the summer extension program in only 5 departments. This may be difficult to generalize the finding to all the population. Despite its limitations, the findings of this study should not be overlooked.

CONCLUSION

The findings from this study show that knowledge, attitude and practice towards emergency contraceptive is poor in University of Gondar female students even though there are some improvements in all from past studies.

Other finding shows, year of study, marital status, religion were shown to be associated with having the low practice of Emergency contraceptives.

RECOMMENDATION

We can see that there are some promising hopes in all good knowledge, positive attitude and proper knowledge from different studies done previously. So these different interventions done will have a significant effect on all aspects.

Interventions like training about emergency contraceptives and sexual reproductive health should be given for the students and some media coverage should be given about emergency contraceptives since it has a high influence on any population.

Training and other legal interventions should be taken on community pharmacies and drug stores as they are the main reported sources of emergency contraceptives.

It is highly recommended that other further studies are done to have some better findings.

Declarations

I declare this paper is our work which followed ethical and standard procedures of research. There are no competing interests among Authors.

List of Abbreviations

JHPIEGO:-John Hopkins Program for International Education in Gynecology Obstetrics, EC: - Emergency Contraception, KAP: - Knowledge, Attitude and Practice, WHO: -World Health Organizations

Ethics approval and consent to participate

The study protocol was approved by the Gonder University, College of Health and Medical Sciences, Institutional Health Research Ethics Review Committee. Information on the study was explained to the

participants, including the procedures, potential risks, and benefits of the study. Informed voluntary written and signed consent were obtained from all respondents prior to the study.

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

the authors declare that they have no competing interests.

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Author Contributions

K P* conceived the original idea and was involved in proposal development, design, and data collection and analysis and in all stages of the research project. Finally, the author revised the manuscript and approved the final version.

References

1. Kebede Y. Emergency contraception: knowledge and practice of Gondar University students, northwest Ethiopia. *Ethiop Med J.* 2006 Jul;44(3):221-30.
2. Tajure N. Knowledge, attitude and practice of emergency contraception among graduating female students of Jimma University, southwest Ethiopia. *Ethiop J Health Sci.* 2010 Jul;20(2):91-7.
3. Hickey MT, White J. Female college students' experiences with and perceptions of over-the-counter emergency contraception in the United States. *Sex Reprod Healthc.* 2015 Mar;6(1):28-32.
4. Ajayi AI, Nwokocha EE, Adeniyi OV, Ter Goon D, Akpan W. Unplanned pregnancy-risks and use of emergency contraception: a survey of two Nigerian Universities. *BMC Health Serv Res.* 2017 Jun 2; 17(1):382.
5. Gelaye AA, Taye KN, Mekonen T. Magnitude and risk factors of abortion among regular female students at Wolaita Sodo University, Ethiopia. *BMC Women's Health.* 2014 Mar 26; 14:50.
6. Wasie B, Belyhun Y, Moges B, Amare B. Effect of emergency oral contraceptive use on condom utilization and sexual risk-taking behaviors among university students, Northwest Ethiopia: a cross-sectional study. *BMC Res Notes.* 2012 Sep 13; 5:501.
7. Ahmed FA(1), Moussa KM, Petterson KO, Asamoah BO. Assessing knowledge, attitude, and practice of emergency contraception: a cross-sectional study among Ethiopian undergraduate female students. *BMC Public Health.* 2012 Feb 9; 12:110.
8. Gizachew Aseffa Tessema, Caroline O. Lawrence, Yohannes Adane Melaku. Trends and causes of maternal mortality in Ethiopia during 1990-2013; Findings from the Global Burden of Disease study. *BMC Public Health.* (2017)17:16
9. Jones RK et al, contraceptive use among US women among having an abortion in 2000-2001, the perspective of sexual and reproductive health 2002, 34(6); 294-303.
10. Johns Hoop Kins, family planning a global handbook for providers US agency for international development bureau for global health officer of population and reproductive health, 2007