

## Assessment of Knowledge, Attitude and Behaviour towards Emergency Contraceptive among Female Students of Fasiledes Preparatory School, Gondar, Ethiopia

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Received date: April 13, 2017; Accepted date: May 12, 2017; Published date: May 17, 2017

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### Abstract

**Introduction:** Unintended pregnancy is one of the most common prevalent problems in young women globally, which leads them to distortion of physical and mental health. Moreover, the awareness of the young women about emergency contraceptive is lower among developing countries women. Perhaps, to improve the awareness of the young women about emergency contraceptive and reproductive health issues has a crucial role in improving the health of women specifically young women.

**Objective:** The objective of this study is to determine the knowledge, Attitude and practice of emergency contraceptive among Fasiledes preparatory school of Gondar, Ethiopia.

**Method:** Institution based cross-sectional study design was used to assess the knowledge, attitude and practice of emergency contraceptive among female students of Fasiledes preparatory school. The data were collected from March to July, 2013. Multi stage stratified sampling method was used to recruit the sample students from the total sections. Semi structured self-administered questionnaire was used to collect the data. Finally, frequency and mean was used to determine the level of knowledge, attitude and practice of emergency contraceptive among the study participants.

**Result:** Out of 327 respondents, 318 were completed and analysed in this study. The majority (69.4%) of the study participants had good level of knowledge. Similarly, equivalent (71.1%) amount of the study participants had good attitude towards emergency contraceptive while the study participants who use ever emergency contraceptive before this interview was only (13.5%). Moreover, the more known type of the emergency contraceptive method was Pills (74%). The major source of information of study participants to get information about emergency contraceptive was mass media (34.4%).

**Conclusion:** The level of knowledge and attitude of study participants of this study was found sub optimal while the practice level was low.

**Keywords:** Knowledge; Attitude; Practice; Emergency contraceptive; Unintended pregnancy; Younger women

**Abbreviations:** EC: Emergency Contraceptive; KAB: Knowledge, Attitude, Behavior; IUCD: Intra Uterine Contraceptive Device; EDHS: Ethiopian Demographic Health Survey; WHO: World Health Organization.

### Introduction

Literally, unintended pregnancy is defined as a pregnancy that is occurring due to not in desire of women or sooner than desired, this is commonly seen in younger women age groups. Globally, about sixteen million young women of age group (15 to 19) give birth every year, most of them are unintended. Moreover, mostly the outcome of this unintended pregnancy results in unplanned births or abortions [1].

The 2008 global estimate of outcome of unintended pregnancy showed among (86) million unintended pregnancies; (13%), (38%) and (48%) end up in miscarriage, unplanned birth and abortion respectively [2]. Moreover, every year eleven percent birth was seen in younger women in aged group 15 to 19 globally. Furthermore, (95%) of this birth was from low-income countries. As, being Ethiopia is also among low income countries, it is found with high younger age group birth rate [3].

In Ethiopia, early childbearing is common. As evidence, Ethiopian demographic health survey (EDHS) 2011, showed (12%) of young girls in the age group 15 to 19 had already begun child bearing. The report showed (29%) of girls were started sexual relation in early age [4]. This shows there is a more trend sexual relation in early age, which leads them to unintended pregnancy and ultimately leads to abortion. Despite the fact that, abortion is legal now in Ethiopia in case of pregnancy is due to rape and fetal impairment, an estimated of 382,500

induced abortions were done with an annual rate of 23 abortions per 1,000 women aged 15-44 in 2008. Moreover, the mean age of women seeks induced abortion were 23 years of old, which indicates as the unintended pregnancy as well abortion is more common in younger age groups [5].

Unintended pregnancy and abortion have a great impact on the health of women; subsequently have great negative impact on the psychological and social life of the girls [3]. The world reference bureau 2008, ranked Ethiopia the fifth as highest number of maternal deaths occurred in the world, this means (1 in 27) women die from complications of pregnancy or childbirth annually due to unintended pregnancy and abortion [5]. The unintended pregnancy which leads women, especially the young women to unsafe abortion and again, lead them to complications and maternal death would be controlled by the use of contraceptive, including emergency contraceptive [5-7].

Emergency contraceptive is a contraception method which is effective and safe used to prevent unintended pregnancy after occurrence of unprotected sexual relation, miss and/or non-use of regular contraception [8]. However, to be effective it should be used within 72 hours of unprotected sexual relation [7]. Despite the fact that, no scarcity of contraceptives globally, unintended pregnancy and unsafe abortion are still the predominant problems of women specifically young women in Ethiopia. This is due to lack of good knowledge, attitude and practice of contraceptives (emergency contraceptives), inaccessibility and/or sexual assault existed in the community.

Among some of previous studies conducted in Ethiopia; study conducted in undergraduate university students revealed a significant number (15.8%) of students didn't ever heard about emergency contraceptive. Moreover, (5.7%) don't know to be emergency contraceptive is given over 72 hours of unprotected sexual relation while the other significant number of study participants (18.2%) don't know the timing to be emergency contraceptive will be taken [9]. Another study conducted in undergraduate female students revealed (89.9%) of the study participants don't have awareness about emergency contraceptive. However, only nine study participants had good attitude towards emergency contraceptive but no one had practiced [10].

The problem (unintended pregnancy and abortion) are more prevalent in younger age groups of girls and this age group is mainly found in secondary and high school level (preparatory school) of education. However, much limited studies were conducted to measure awareness and attitude of emergency contraceptive. Moreover, knowing the level of knowledge, attitude and practice on Emergency contraceptive (EC) is particularly important for female preparatory students. So, as most preparatory students are in younger age group, along with there would be a high prospect of unintentional sexual relation which leads them to unintended pregnancy, abortion and abortion related complications. Thus, it is important to examine problems in young age group women regularly and identify the relevant problems. Hence, the main purpose of this survey is to determine knowledge, attitude and behavior/practice (KAB) towards emergency contraceptive among female students of Fasiledes preparatory school, Gondar, Ethiopia.

## Methods

### Study area

This study is conducted in Fasiledes Preparatory school, which is found in Amhara regional state, Gondar town, Ethiopia. This school is one of the governmental and oldest preparatory schools among the three preparatory schools found in the town. By being the town has no private preparatory school until this study was conducted; the school is a center for all economical level of students. In the time of data collection of this study, the school had a total of (41) sections among those (22) were 11th grade the rest were 12th grade. As a whole, the school had a total of (2253) student; among them (1110) were Female. Students from this preparatory school were from the town and different rural district towns of the province.

### Study design and period

Cross sectional study design was conducted with the study period from March to July 2013.

### Source population

ALL female students at Fasiledes preparatory school was taken as source population. According to the school's registrar office record, there were about (1110) female students were found in academic year of 2013.

### Sampling technique

To get the sample; multi stage stratified random sampling method was used to differentiate the strata, that were stratum of grade, 11th and 12th. Thus, they were listed down in a separate paper. Then the study participants were selected through systematic random sampling method based on the proportion of their strata every K-values. All female students were eligible for the study.

### Sample size

Single proportion formal with 5% margin of error, 95% confidence level and 50% response distribution) were used to determine the sample size. Thus, and it was found 327 (including 15% non-response rate) after correction formula was used.

### Data collection method

Data was collected using self-administrated Semi structured questioner designed to assess knowledge, attitude and practice on emergency contraceptives. The instrument was adapted from standard world health organization guidelines and similar literatures, then modified to suit to the local context. Approved to be valid by our advisers, nurse researchers and nurse lecturers of the Gondar University department of nursing and midwifery.

This study used 19 core questions to assess knowledge, attitude and practice of emergency contraceptives among female students of Fasiledes preparatory school. The data were collected accompanied by the instructor we distributed the questionnaire to relevant students. Finally, we collected after check for completeness.

### Data quality control

To ensure quality of data, the data collection tools were evaluated and commented by our advisers for its content and some necessary correction was made. In addition, pretest of data collection tools was done by principal investigators on 5% (16) of the sample size and conducted in Azezo preparatory school 3 days before the actual data collection were conducted and necessary correction was done after the pre-test. The collected data were checked out for the completeness, accuracy and clarity by the Principal investigator and supervisors. This quality checking was done daily after data collection and amendments were made before the next data collection measure.

### Ethical consideration

To keep the right of the study participants, letter of approval that allows us to conduct this study was written from ethical review committee of University of Gondar, department of nursing. All responsible individuals and officials were contacted at all levels, including the heads of the school. In addition, for those students whose age is under eighteen years of old and selected for the study, approval of parents were considered to participate them in the study. Then, verbal consent was obtained from each respondent before distributing the questionnaire. Confidentiality of the result was kept by not asking their name to write on the questionnaire. The rights of the individual not to participate were respected.

### Data analysis

Data was cleaned up and cross-checked before analysis SPSS version 13. Then the frequency was calculated descriptively.

### Study variables

**Dependent variable:** Knowledge, attitude and practice towards EC.

**Independent variables:** Age, Marital status, Religion.

### Operational definition

#### Knowledge

Knowledge towards emergency contraceptive was measured from study participants response to knowledge measuring closed ended questions: do you know about emergency contraceptive, do you know type and use of emergency contraceptive separately, do you know right time to take emergency contraceptive, which drug is emergency contraceptive, recommended number of doses for emergency contraceptive, number of hours between each dose, recommended time for IUCD as emergency contraceptive. Then, the correct response was recoded as Yes and wrong response was recoded as No. Thus, scores greater than or equal to the mean value was considered as good knowledge while score less than the mean value was considered as poor knowledge of emergency contraceptive (EC).

#### Attitudes

Attitude towards emergency contraceptive was measured from study participants response to importance, cultural acceptance, religious acceptance, and harmful effect of emergency contraceptive. Their response was responded as strongly disagree, disagree, neutral, agree and strongly agree. Then, strongly disagree, disagree and neutral was recoded as No and agree and strongly agree was recoded as Yes.

Thus, Scores greater than or equal to the mean value was considered as good attitude while score less than the mean value was considered as poor attitude.

#### Practice/Behaviour

Any previous history of EC usage.

#### Emergency contraception

A kind of contraception indicated after unprotected sexual intercourse to prevent unintended pregnancy.

#### Unintended pregnancy

Pregnancy occurred with no plan.

### Result

#### Socio-demographic characteristics of the study participants

Among a total of (327) study participants responded to the questionnaire, 318(97.2%) was complete and analyzed for this study. The majority 295 (93%) of the study participants were younger, which were found in the age group 14 to 19 years of old while the rest of them were found in group 20 to 24 years of old. The most frequently appeared religion was Orthodox Christian, and the majority of the study participants were single in their marital status (Table 1).

Characteristics	Respondents	
	Number	%
<b>Age in year</b>		
Age 14-19	295	93
20-24	23	7
<b>Religion</b>		
Protestant	10	3.1
Orthodox	264	83
Muslim	44	13.9
<b>Marital status</b>		
Single	294	92.4
Married	24	7.6

**Table 1:** Socio-demographic characteristics of the study participants Gondar, Ethiopia, 2013 (n=318).

#### Knowledge of study participants

Among (318) study participants participated in the study; almost three fourth 221 (69.4%) of the study participants had good knowledge about emergency contraceptive while the rest 97 (30.6) had poor knowledge. Moreover, among 221 (69.4%) those who had good knowledge; 17 (5.3%) were found in the age group 20 to 24 while the rest found in the age group 14 to 19. Further, the majority (56.9%) of the study participant who had good knowledge were from orthodox Christianity in their religion. Regarding their marital status, the

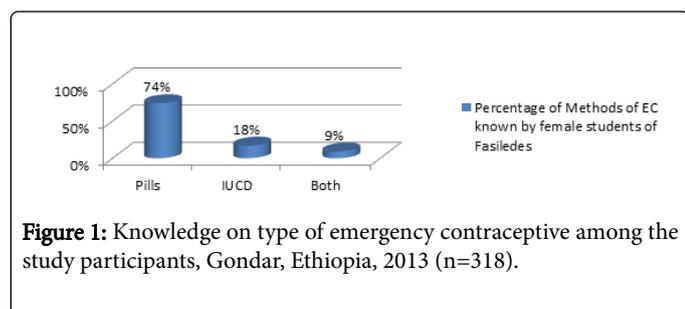
majority (62.6%) of the study participants who had good knowledge were single in their marital status (Table 2).

Characteristics	Knowledge			
	Good		Poor	
	Number	%	Number	%
<b>Age in years</b>				
14-19	204	64.1	88	27.8
20-24	17	5.3	9	2.8
<b>Religion</b>				
Protestant	7	2.2	3	0.9
Orthodox	181	56.9	83	26.1
Muslim	31	9.7	13	4.1
<b>Marital status</b>				
Single	199	62.6	87	27.4
Married	22	6.9	10	3.1

**Table 2:** Knowledge of emergency contraceptive among the study participants, Gondar, Ethiopia, 2013 (n=318).

### Knowledge on type of emergency contraceptive

Among the study participants participated in the study, the majority (74%) known as the pill is an emergency contraceptive method followed by Intra uterine contraceptive device (IUCD) (18%) and only (9%) knows both pill and IUCD as an emergency contraceptive method (Figure 1).



**Figure 1:** Knowledge on type of emergency contraceptive among the study participants, Gondar, Ethiopia, 2013 (n=318).

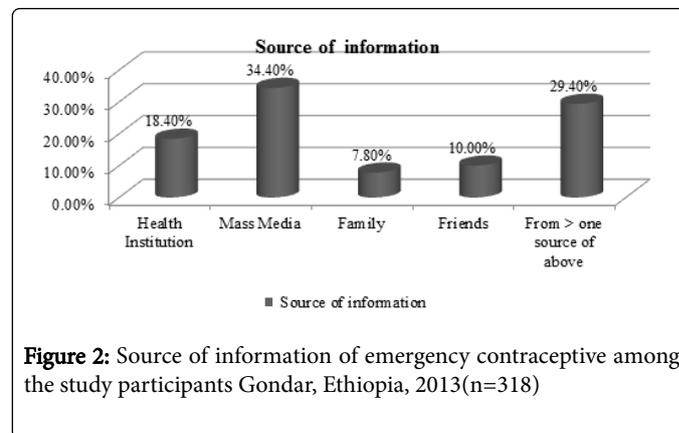
### Source of information

The major source of information for the majority (34.4%) of the study participants were mass media followed by those study participants got information from more than one source (29.4%). Moreover, significant number of study participants got information from friends as well as form families (Figure 2).

### Attitude of study participants towards emergency contraceptive

According to the information obtained from the study participants; the majority of the study participants (66.7%), (65.1%), (72.9%) who had a good attitude towards emergency contraceptive were from age group 14 to 19, Orthodox in their religion, Single in their marital status

respectively. However, only (1.3%) of the study participants had poor attitudes towards emergency contraceptive among protestant religion followers of the study participants (Table 3).



**Figure 2:** Source of information of emergency contraceptive among the study participants Gondar, Ethiopia, 2013(n=318)

Characteristics	Attitude			
	Good Attitude		Poor attitude	
	Number	%	Number	(%)
<b>Age in year</b>				
14-19	212	66.7	83	26.1
20-24	14	4.4	9	2.8
<b>Religion</b>				
Orthodox	207	65.1	57	17.9
Muslim	35	11	9	2.8
Protestant	6	1.9	4	1.3
<b>Marital status</b>				
Single	232	72.9	62	19.5
Married	18	5.7	6	1.9

**Table 3:** Attitude of study participants towards emergency contraceptive Gondar, Ethiopia, 2013 (n=318).

### Practice of study participants on emergency contraceptive

Though, off the total of (318) study participants 92 (29%) had sexual relation, the majority (81.4%) of younger study participants found in age group 14 to 19 had not practiced emergency contraceptive while (11.3%) of study participants from this age group had practiced emergency contraceptive.

However, only (2.2%) of the study participants had practiced emergency contraceptive from the age group 20 to 24. Moreover, the majority (10.1%) of the study participants who practiced emergency contraceptive were from orthodox Christian religion followers. Regarding their marital status, more number (10.1%) of study participants who practiced emergency contraceptive was single in their marital status (Table 4).

Characteristics	Practice
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	Yes		No	
	Number	%	Number	%
<b>Age in years</b>				
14-19	36	11.3	259	81.4
20-24	7	2.2	16	5.03
<b>Religion</b>				
Orthodox	32	10.1	232	72.9
Muslim	5	1.6	39	12.2
Protestant	6	1.9	4	1.3
<b>Marital Status</b>				
Single	32	10.1	262	82.3
Married	11	3.5	13	4.1

**Table 4:** Practice of study participants towards emergency contraceptive Gondar, Ethiopia, 2013 (n=318).

## Discussion

This study tries to show the extent of knowledge, attitude and practice of emergency contraceptive among female students of the Fasiledese preparatory school of Gondar town, Ethiopia. Emergency contraceptive is not given regularly as other contraceptive medicines, it is given in case of occurrence of unprotected sexual relation and there would be undesired for pregnancy [11]. The overall knowledge level of emergency contraceptive among study participants of this study was (69.9%). This indicates a significant number almost one third of the study participants don't know about emergency contraceptive. This finding is much lower than the finding from a national health survey of Ethiopia 2011, which revealed more than (97%) of the women in the reproductive age group know about contraceptive [4]. This is due to the survey includes all kinds of contraceptive method, while this study focuses only in emergency contraceptive methods, study setting difference; as the survey includes all women in the age group 15 to 49 in all over the country, but this study includes only women from the age group 14 to 24 and from one school only and from one town. However, finding of knowledge of emergency contraceptive among study participants of this study is higher than study conducted in undergraduate students of Jimma University, Adama University and female university students in Addis Ababa. As studies revealed (89%) of the study participants of Jimma University [10] and (53%) from Adama University [12], (54.8%) from female University students of Addis Ababa [13] not had awareness about emergency contraceptive and much better than study from South Africa cap town also [14]. This is due to study time and study setting with a study population difference, study participants from this study had more access to the media and/or the health information delivery system of the town is more easily accessible by the teenagers (young) due to the health office of the province have been given more focus to it than study participants of comparative study compared.

The major source of information to hear about emergency contraceptive of this study participants is mass media, which is in line with a study from Addis Ababa conducted in female University students of Addis Ababa [15].

However, it is in contrast to study from Jimma University, which revealed the majority of the study participants got information about emergency contraceptive from friends [13].

As, this study revealed a total of (71.1%) of the study participants had good attitudes towards emergency contraceptive, moreover the majority (66.7%) were from the youngest age group (14 to 19). This indicates that almost one third of the study participants had poor attitudes towards emergency contraceptives; it is a point for the government and the stakeholder to deal to improve the attitude of the women towards emergency contraceptive. This finding is in line with study from India and Cameron conducted on college and University students respectively. Even though, study from India was on general contraceptive methods [16]. However, it is higher than attitude towards emergency contraceptive among study participants from Adama University [12]. This difference may be due to study time difference and/or study population difference, awareness difference that leads them to have a better attitude towards emergency contraceptive.

Practice of emergency contraceptive among study participants of this study is low compared to study from KwaZulu-Natal, South Africa and Mekele town, Ethiopia among female University and college students respectively [17,18]. The possible reason for low practice of emergency contraceptive in this study was the low level of education and not to have sexual relation as being they are in preparatory school compared to university students, awareness difference about emergency contraceptive.

## Implication

The government and stakeholders should motivate the young women to use emergency contraceptive to prevent undesired pregnancy which may lead them to unsafe abortion and related complications in addition to increasing their awareness. The government and stakeholders should increase youth service centers that give them counseling on any occasion that young women face problems and need counseling to resolve their problem in schools and health institutions. Community and religious leaders should encourage discussion about reproductive health which is a good intervention to reduce unplanned sexual relation which leads them to unintended pregnancy. Being we use descriptive statistics only; it is recommended for further study to be in detail to see the associated variables through inferential statistics.

## Conclusion

Knowledge and attitude towards emergency contraceptive among study participants of this study was found to be somewhat optimal while the practice of emergency contraceptive is low. The more knowledge and attitude towards emergency contraceptive is among the younger girls of age group 14 to 19. The more known emergency contraceptive method by the study participants were Pill. The predominant source of information for study participants is mass media.

## Limitation of the study

By, being it is a cross-sectional study it will see only on spot situation of the study participants, the results were described only by descriptive statistics, didn't try to find the cause and effect relationship.

## Acknowledgement

This paper was done as part of graduation requirement of Bsc Nursing in University of Gondar, Gondar, Ethiopia. So, our acknowledgement goes to the University of Gondar as a whole and department of nursing and midwifery. Our special gratitude goes to our advisors Mr. Tesfaye Demeke and Sr. Netsanet habtei for their valuable help and advice from the beginning to the end of the paper.

## References

1. FIGO and ESC. The Global Epidemic of Unintended Pregnancies 1-53.
2. Singh S, Sedgh G, Hussain R (2010) Unintended Pregnancy: Worldwide Levels, Trends, and Outcomes. *Stud Fam Plann* 41: 241-250.
3. Mangiaterra V, Pendse R, McClure K, Rosen J (2008) Adolescent Pregnancy. *WHO MPS Notes* 1: 1-4.
4. EFMH and CSA (2011) Ethiopia, 2011 Demographic and Health Survey Key Findings. *Moh*.
5. IPAS (2010) Facts on Unintended Pregnancy and Abortion in Ethiopia.
6. Murphy PA (2012) Update on emergency contraception. *J Midwifery Women's Heal* 57: 593-602.
7. Neinstein LS (2002) Adolescent Health Care? A Practical Guide Contents. 729.
8. Klofkorn A (1998) Emergency Contraceptive Pills: An Important Option for Young Adults.
9. Ahmed FA, Moussa KM, Petterson KO, Asamoah BO (2012) Assessing knowledge, attitude, and practice of emergency contraception: a cross-sectional study among Ethiopian undergraduate female students. *BMC Public Health* 12: 110.
10. Tesfaye T, Tilahun T, Girma E (2012) Knowledge, attitude and practice of emergency contraceptive among women who seek abortion care at Jimma University specialized hospital, southwest Ethiopia. *BMC Womens Health* 12: 3.
11. Tadesse E, Yoseph S, Gossa A, Muletta E, Pogharian D, et al. (2001) Illegal abortions in Addis Ababa, Ethiopia. *East Afr Med J* 78: 25-29.
12. Dejene T, Assefa T, Belachew T (2010) Knowledge, attitude and practice of emergency contraceptives among adama university female students. *Ethiop J Health Sci* 20: 195-202.
13. Tajure N, Pharm B (2010) Knowledge, Attitude and Practice of Emergency Contraception among Graduating Female Students of Jimma University, Southwest Ethiopia. *Ethiop J Sci* 20: 91-97.
14. Myer L, Mlobeli R, Cooper D, Smit J, Morroni C (2007) Women's Health Knowledge and use of emergency contraception among women in the Western Cape province of South Africa? A cross-sectional study. *BMC Womens Health* 7: 1-7.
15. Tamire W, Enqueselassie F (2007) Knowledge, attitude, and practice on emergency contraceptives among female university students in Addis Ababa, Ethiopia. *J Health Dev* 21: 111-116.
16. Kongnyuy EJ, Ngassa P, Fomulu N, Wiysonge CS, Kouam L, et al. (2007) A survey of knowledge, attitudes and practice of emergency contraception among university students in Cameroon. *BMC Emerg Med* 7: 7.
17. Hoque ME, Ghuman S (2012) Knowledge, Practices, and Attitudes of Emergency Contraception among Female University Students in KwaZulu-Natal, South Africa. *PLoS One* 7: 1-7.
18. Gebrehiwot H, Gebrekidan B, Berhe H, Kidanu K (2015) Assessment of knowledge, attitude, and practice towards emergency contraceptives among female college students at Mekelle town, Tigray region, Ethiopia: A cross sectional study. *Int J Pharm Sci Res* 4: 1027-1038.