# International Journal of Advanced Research in Biological Sciences ISSN: 2348-8069 www.ijarbs.com

**DOI: 10.22192/ijarbs** 

Coden: IJARQG(USA)

Volume 5, Issue 12 - 2018

**Research Article** 

2348-8069

DOI: http://dx.doi.org/10.22192/ijarbs.2018.05.12.007

# Knowledge And Attitude On Emergency Contraceptive Among Female High School In Wolaita Zone, Ethiopia 2016.

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## Abstract

Emergency contraception, or post-coital contraception, refers to methods of contraception that can be used to prevent pregnancy in the first 5 days after sexual intercourse. According to WHO emergency contraceptive is intended for use, when no contraceptive has been used, In cases of rape or coerced sex, when the woman was not protected by an effective contraceptive method and When there is a contraceptive failure or incorrect use, including condom breakage, slippage, or incorrect use. A descriptive cross-sectional study was conducted on 303 female high school students in Areka Town, Wolaita, and SNNPR, Ethiopia from April 12-16 /2016. Study populations were selected from three schools using stratified random sampling technique. Among 262 students surveyed 183(69.8%) had ever heard of Emergency contraception. From them only 42(23%) had good knowledge, 132(72.1%) had fair knowledge and 9(4.9%) had poor knowledge on Emergency contraception. One hundred forty one (77%) had positive attitude towards Emergency contraception and 42(23%) had negative attitude towards emergency contraception. School management and stakeholders should take responsibility of organizing youth and other reproductive health clubs so as to address the gap.

**Keywords:** emergency contraception, student, knowledge, attitude.

# Background

Emergency contraception, or post-coital contraception, refers to methods of contraception that can be used to prevent pregnancy in the first 5 days after sexual intercourse. According to WHO emergency contraceptive is intended for use, when no contraceptive has been used, In cases of rape or coerced sex, when the woman was not protected by an effective contraceptive method and When there is a

contraceptive failure or incorrect use, including condom breakage, slippage, or incorrect use (1).

Emergency contraception is effective only in the first few days following intercourse before the ovum is released from the ovary and before the sperm fertilizes the ovum. Since it is difficult to determine the infertile time of the cycle with certainty emergency contraceptive better be provided for any women who is concerned about her risk of pregnancy regardless of the cycle day of exposure(1). Emergency contraceptive pills sometimes referred to as emergency hormonal contraception (EHC) may contain higher dose of the same hormones (estrogen, progestin or both) found in regular combined oral contraceptive pills (2)

Emergency contraceptive pills are recommended for occasional use only after unprotected intercourse and are not recommended for regular use as an ongoing contraceptive method because of the higher possibility of failure compared with oral contraceptive pills. Frequent use of emergency contraception can result in increased side-effects, such as menstrual irregularities, although their repeated use poses no known health risks (1).

Ethiopia has a high incidence of unwanted pregnancies and incomplete and unsafe/septic abortions, particularly among adolescents. Several studies in the country have revealed that women who tend to undergo induced abortion are below the age of 30 years and are literate; many of whom being above the secondary educational level. (7).

According to Ethiopia ministry of health Females comprise 49.5% of the total population, of whom 24% are in the reproductive age bracket (15-49 years). The population is predominantly young with 44.9 % under the age of 15 years and is reported to grow by 2.6 percent every year (8).

In nationwide hospital based survey of unsafe abortions conducted in nine administrative regions of Ethiopia accounted for 49.1% of the cases and nonuse of contraceptive methods contributes to78% of pregnancies (10).

Consequences of unprotected sex, such as unintended pregnancy and unsafe abortion, can be prevented by access to contraceptive services including emergency contraception. Emergency contraception is a method used to avoid pregnancy after unprotected sexual intercourse unlike the regular methods of contraception that are taken before sexual contact. It has the potential, as the last resort, to avoid unwanted pregnancy and therefore abortion(11).

Even though there are some studies related with EC use, knowledge and attitude among female population, this study intended to assess the knowledge and attitude towards emergency contraceptive among Female high school students in Areka Town .This study will help to give relevant information for the programmers and service providers for the development of strategies that will create awareness of the emergency contraception, so as to reduce the occurrence of unplanned pregnancies and its consequence unsafe abortion.

# Methods, study setting and period

A cross sectional study design using quantitative data collection was employed to assess the knowledge and attitude toward emergency contraceptive among Female High School Students in Areka Town from April 12 – May 16, 2016. Areka is a town in southern part of Ethiopia. It is Located in Wolaita Zone of Nation, Nationalities and peoples 'Region. It is located some 300 km south west of Addis Ababa, the capital city of Ethiopia

## Sampling technique and Sample Size

The total numbers of students to be included in the study were determined by using single population proportion formula. By assuming, the awareness of EC among post-secondary students to be 35.6% from the previous study, (21).And by taking 95% level of confidence and 5% margin of error, the final sample size was calculated to be 352. However, adjustment was made since the total source population (N) was below 10,000.Final sample size where calculated to be 303 students. With consideration of students from each section in the school as a stratum, from each category 303 student were selected based on simple random sampling (SRS)by random table generation using SPSS.

## **Data collection tools and procedures**

Structure questionnaire was prepared in English after reviewing Literatures of similar surveys that have been carried out previously (22). The final modified English questioner was translated to Amharic and back translates to English. Data were collected through selfadministered structured questionnaire. Randomly selected students from each class rooms were taken to one class room based on their willingness to participant in the study. They were provided the questionnaire and oriented how to fill the questionnaire after filling the questionnaire they were return to the data collectors.

#### Data processing and analysis

After data collection each questionnaire was checked for completeness and consistency. Then collected data was compiled, tallied, and calculated manually using scientific calculator. Further, the compiled data were analyzed by frequency, percentage and presented by using tables, graph and figures.

#### Data quality assurance

The data quality was assured by; the questionnaires were tested for their accuracy and consistency prior to the collection of data. Pretest the questionnaire by 5% of the sample size, which was 15 students and they were taken from Hangada secondary school.

#### **Operational definitions**

The study subjects" knowledge on EC are classified as good (students who scored more than 3(50%)), fair (who scored 1-3 (16.7-50\%)) and poor (who scored Zero (0%)) according to the number of correct responses to the nine series of knowledge questions (21).

Attitude is opinions, out looks, values, position and intentions of the study subjects towards the EC methods. Study subjects who have concerns and negative opinion about ECs and responded negatively for attitude items were regarded to have negative attitude towards EC. While those who have positive outlook and no concern towards ECs and responded the attitude questions positively were considered to have a positive attitude towards EC (21).

#### **Ethical consideration**

A letter of permission that was obtained from the Department of Nursing was communicated with the responsible bodies in Areka Town High schools. The objective of the study was clarified to study participants. Verbal consent was obtained from study participants before data collection. Finally the test result was kept confidential.

## **Results**

# Socio-demographic characteristics of study participants

A total of 303 self-administered questionnaires were distributed to the study participants, however, only 262 (86.5%) of the questionnaires were completed and received. As shown the majority of the respondents were between 14-18 year old 25 (95.4%), 184(70.2%) were single, 42(16%) in relation, 17(6.5%) married and 13(5%) were widowed and 6(2.3%) were divorced.

**Table 1**: Socio demographic characteristics of Female high school students in Areka Town, Wolaita Zone SNNPR, Ethiopia, march 2016.

Characteristics	Frequency	Percentage
Age		
14-18	250	95.4%
>18	12	4.6%
Grade level		
Grade 9	96	36.6%
Grade 10	58	22.1%
Grade 11	85	32.5%
Grade 12	23	8.8%
Marital status		
Single	184	70.2%
In relationship	42	16%
Widow	13	5%
Married	17	6.5%
Divorced	6	2.3%
Ethnicity		
Wolaita	252	96.2%
Other*	10	3.8%

Religion		
Orthodox	68	25.9%
Muslim	6	2.3%
Protestant	136	51.9%
Catholic	18	6.9%
Hawariyat	27	10.3%
Others	7	2.7%

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#### Family background of the study participants

It is noted that 102(38.9%) of the respondents' fathers were reached above  $12^{\text{th}}$  grade, 52(19.9%) reached secondary level of education, 82(41.3%) reached primary level of education and 26(9.9%) had not formal education. Similarly, respondents' mothers' educational level shows that 107(40.8%) had primary education, 55(21%) had secondary education, 52(19.9)had not formal education and 48(18.3%) were above secondary education level. About 173(66%) of respondents reported that they discuss about reproductive health issues with their family and 89(34%) have never done that.

Table2: Family	Backgrounds of	Female high schoo	l students in Areka	Town, Wolaita Zon	e, SNNPR, Ethiopia, 2016
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	Variable	Frequency	Percentage
Educational status of	Illiterate	26	9.9%
father (n=262)	1-4	13	15%
	5-8	69	26.3%
	9-12	52	19.9%
	>12	102	38.9%
Educational status of	Illiterate	52	19.9%
mother (n=262)	1-4	37	14%
	5-8	70	26%
	9-12	55	21%
	>12	48	18.3%
Having RH discussion with family $(n-262)$	Yes	137	66%
with family (n=262)	No	89	34%

#### Awareness on modern contraception methods

Among the respondent 249(95%) ever heard about modern contraception methods, most common known

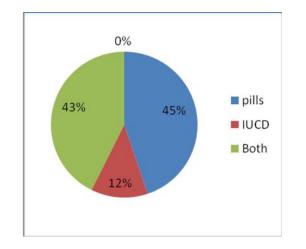
method was OCP 98(27.3%) and condom 97(27%) shown in (table3).

**Table 3:** Awareness on modern contraception methods among Female high school students in Areka Town, Wolaita Zone, SNNPR, Ethiopia, 2016

	Variable	Frequency	Percentage
Ever heard of modern	Yes	247	94.3%
contraception methods (n=262)	No	15	5.7%
Modern contraception	Pill	98	27.3%
methods (n=359)*	IUCD	80	22.3%
	Injectable	56	15.6%
	Norplant	28	7.8%
	Condom	97	27%

#### **Knowledge about Emergency Contraception**

From the 262 of study participant 183(69.8%) has ever heard about emergency contraception. From this 82



**Figure 3:**Knowledge on methods of Emergency Contraception among Female high school students in Areka Town, Wolaita Zone, SNNPR, Ethiopia, 2016.

The respondents who ever heard of emergency contraceptive the major source of information were 73(39.9%) from health care provider, 38(20.8%) mass

media, 37(20.2%) family, 19(10.4%) teachers,14 (7.7%) friend and 2(1.1) were club (Fig2).

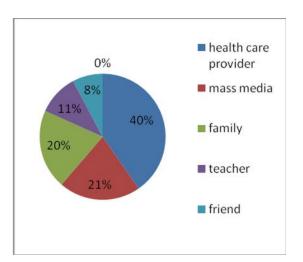


Figure 4: Source of information of EC of Female high school students in Areka Town, Wolaita Zone, SNNPR, Ethiopia, 2014.

Of those who heard about EC, majority of the respondents 84 (45.9%) did not know about composition of Emergency contraceptive pills (ECPs) but 33 (18%) of them cited that they are the same but higher dose from regular OCP. Majority, 88 (48.1%) of the respondents who heard about EC, cited ECPs prevent occurrence of pregnancy. However, 16 (8.7%)

of the respondents perceived ECPs induced abortion. Most respondents indicated that ECPs should be used missed pills 59(31.6%), condom broken 48(25.7%), forced sex 47(25.1%), failure of contraception 13 (11%). However, 33 (17.6%) of the respondents did not know in which circumstance to use ECPs.

(44.8%) mentioned oral pills, 23(12.6%) mentioned IUCD and 78(42.6%) mentioned both. (See fig 1 below)

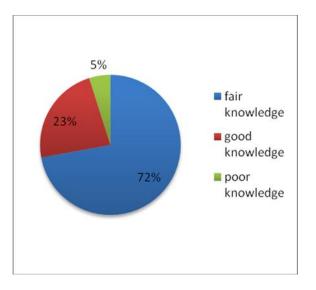
	Variable	Frequency	Percentage
Composition of ECP	The same with regular OCP	38	20.8%
	The same with regular OCP but higher in doses	33	18%
	Different from regular OCP	28	15.3%
	I don't know	84	45.9%
Effect of ECP	Prevent pregnancy	88	48.1%
	Induced abortion	16	8.7%
	Prevent pregnancy and induced abortion	20	11%
	I don't know	59	32.2%
Situation to use ECP	Forced sex	47	25.1%
	Condom broken	48	25.7%
	Missed pills	59	31.6%
	I don't know	33	17.6%
The most effective time to take ECP	24 hours	37	20.2%
	72 hours	20	10.9%
	Within 72-120 hours	27	14.8%
	Missed period	37	20.2%
	I don't know	62	33.9%
The time limit to use IUCD	24 hours	40	21.9%
	Within 72-120 hours	17	9.3%
	Missed period	37	20.2%
	I don't know	89	48.6%
Effectiveness of ECP	Above 95%	54	29.5%
	75-95%	35	19.1%
	<10%	9	5%
	Uncertain	24	13.1%
	I don't know	61	33.3%
Effectiveness of IUCD	Above 99%	58	31.7%
	75-90%	36	19.7%
	<10%	18	9.8%
	Uncertain	28	15.3%
	I don't know	43	23.5%
Recommended no of dose of ECP	One	60	32.8%
	Two	18	9.9%
	Three	33	18%
	I don't know	72	39.3%
The time apart between doses	12 hours	45	24.6%
	24 hours	51	27.9%
	I don't know	87	47.5%

**Table 4:** Knowledge assessment on Emergency contraception among Female high school students in Areka Town, Wolaita Zone, SNNPR, Ethiopia, 2016.(n=183)

Overall, of 183 respondents who had heard about EC, only 42 (23%) had good knowledge and 132(72.1) had

fair knowledge about EC. The rest 9(4.9%) had no knowledge about EC shown in(figure 5)

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**Figure 5:**Knowledge on emergency contraception among female high school students in Areka Town, Wolaita Zone, SNNPR, Ethiopia, 2016.

## **Attitude towards Emergency Contraception**

One hundred eighty-three (69.8%) of students who ever heard about Emergency Contraceptives (EC) were responded to series of questions regarding attitude towards Emergency Contraceptives. From those (69.8%) respondents who ever heard about ECs, 56(30.6%) strongly disagree that EC promote promiscuity, 17(19.8) agree and 24(13.1%) strongly agree.

**Table 5:** Attitudes of Emergency Contraceptive among female high school students in Areka Town, Wolaita Zone, SNNPR Ethiopia, 2016, (n=183)

Variables	Characteristics	Frequency	Percentage
EC's promote promiscuity	Strongly disagree	56	30.6%
	Disagree	50	27.3%
	Neutral	36	19.7%
	Agree	17	9.3%
	Strongly agree	24	13.1%
It's a good idea to avail EC's for	Strongly disagree	64	35%
all female	Disagree	47	25.7%
	Neutral	20	10.9%
	Agree	20	10.9%
	Strongly agree	32	17.5%
It's beneficial to use EC after	Strongly disagree	69	37.7%
unsafe sexual intercourse	Disagree	43	23.5%
	Neutral	41	22.4%
	Agree	16	8.7%
	Strongly agree	14	7.7%
It's sinful act to apply EC methods	Strongly disagree	69	37.7%
	Disagree	43	23.5%
	Neutral	38	20.7%
	Agree	23	12.6%
	Strongly agree	10	5.5%

EC use may cause infertility in a women	Strongly disagree	61	33.3%
	Disagree	51	27.9%
	Neutral	40	21.9%
	Agree	24	13.1%
	Strongly agree	7	3.8%

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Of those who ever heard about ECs,69(37.7%) and 52(28.4%) were strongly disagree and disagree respectively that wives who practice EC will be abandoned by their husbands. Most of the respondent 60(32.8) and 40(21.9) were strongly disagree and disagree respectively that EC use decrease sexual satisfaction.

Of the respondents, 26 (14.2%) and 14(7.6%) who have heard about EC perceived that ECPs would hurt the baby if it fails to work, while 43 (23.5%) of respondents reported as they did not know the impact of pills on the fetus in case it fails to work.

Of the respondents who ever heard about EC, 20(10.9%) and 24(10.9%) strongly agree and disagree that EC can protect from sexually transmitted diseases. Most of the respondents 58(31.7%) and 43(23.5%) were strongly disagree and disagree respectively to use EC in the future.

Over all of the respondents who ever heard about EC most of them were positive attitude towards EC 141(77%) and 42(23%) were negative attitude towards EC.

## Discussion

The response rate in this study was found to be 86.5% which can be lower compare with 94.5 % and 92% in the study conducted among female students in Gonder and Bahir Dar university respectively (23,24). The finding might indicate the challenge to have complete response and willingness of the study subjects to fill self-administered questionnaire and their value towards research though they were well informed on purpose and importance of the research. On top of this the level of education might contribute to the discrepancy.

The study has aimed at assessing the level of knowledge and attitudes towards EC among female high school students in Areka Town. The finding has revealed that 183(69.8%) of the respondent ever heard of about Emergency contraceptive. In this study Awareness about EC was found to be low compared with similar study done in Bahir Dar(84.2%)and(83.5%) Addis Ababa (24, 25). In this study the study participant were secondary school students while the study participant in Addis Ababa and Bahir Dar were university students, so the reasoned may be better access to information and more emphasis given for university students by government and stakeholder have its own contribution on the difference on the level of awareness between our study groups and respondents from the other study.

Awareness about emergency contraception doesn't guarantee that respondents will have good knowledge. In this study, 183(69.8%) of respondents were aware about emergency contraception, however, only 42(23%) of them had good knowledge which is lower than that of the same study conducted inmekelle high school students (75.7%) had good knowledge(16) the reason may be good awareness creation was made on mekelle high school students.

The summarized figure for attitude towards EC indicated that 77% of the respondents who have ever heard of EC had favorable attitude toward EC. This figure is better than the same studies conducted inon the study done mekelle Town high school students 64.9% and also reported Jimma Town high school 55.6% (16,17).

## Strength of study

The data was collected using a structured selfadministered pre-tested questionnaire

Adequate sample size was applied according to single population proportion formula

## Weakness of the study

During this study there may be observational bias

There was financial constraint while conducting the Study

Students participated in the study were based on their chance to be selected and their willingness. However, those refused to take part in the study 41(13.5%), might have impact on the finding.

# **Conclusion and Recommendation**

Awareness and knowledge of EC among female high school students in Areka Town was found to be low. Only 69.8% of the study subjects were awarded about EC and of these only 23% of the respondents had good knowledge. However, 77% of the respondents had favorable attitude towards emergency contraception.

School community and parents of students should discuss about the students' academic and other issues like reproductive health needs of youth. School management and stakeholders should take responsibility of organizing youth and other reproductive health clubs so as to address the gap. The current study gives a quantitative exploration and future researchers could offer clarifying the insights through the use of qualitative methodology.

# **Competing interests**

The authors declare that they have no competing interests.

# Acknowledgment

We are very grateful to Wolaita Sodo university teaching referral hospital community for their cooperation.

# **Authors' contributions**

ET and NA wrote the proposal, participated in data collection, analyzed the data and drafted the paper, approved the proposal with some revisions, participated in data collection and analysis. All authors read and approved the final manuscript.

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# How to cite this article:

Eyasu Tamru Bekru, Bezalem Eshetu Yirdaw. (2018). Knowledge And Attitude On Emergency Contraceptive Among Female High School In Wolaita Zone, Ethiopia 2016. Int. J. Adv. Res. Biol. Sci. 5(12): 50-59. DOI: http://dx.doi.org/10.22192/ijarbs.2018.05.12.007