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Assessment of Knowledge, Attitude and Utilization of Emergency Contraception among Women of Reproductive Age in Abomsa Town, Arsi Zone, Ethiopia: (Research Article)

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ABSTRACT

Background: *Emergency contraception (EC) refers to contraceptive methods that reduce the chance of pregnancy following unprotected sexual intercourse. Almost every one of these deaths and disabilities could have been prevented through sexuality education, family planning, and the provision of safe, legal induced abortion and care for complications of abortion. Knowledge about methods of emergency contraception could reduce the level of unwanted pregnancy and unsafe abortion. Particularly, utilization of emergency contraception among women have beneficiary health outcome as it adds choice for helping sexually active women to avoid unintended pregnancy and abortion.*

Objective: *The objective of the study is to assess knowledge, attitude and utilization of emergency contraceptive of women in Abomsa town in 2018.*

Methods: *Community based descriptive cross-sectional study design was used. A systematic sampling technique was employed to select the study units (women of active reproductive age 15–35 years old) in which 413 participants was involved. Participants, for the in-depth interview was selected purposively. Data was entered using EPI Info version 3.5.1 and was analyzed using SPSS version 20 statistical software. Odds ratio and 95% confidence interval were calculated and ≤0.05 p-value was used to see association of dependent and independent variables.*

Result*: The age of students ranged from 15 to 49 years with median age of 29. Out of total respondents 284(72.3%) had ever had sexual experience. Total of one hundred ninety fife (49.6%) of respondents had ever heard about emergency contraception. One hundred twenty (61.5%) of them mentioned pills as method of EC and Sixty three (44.1%) of them identified 72hrs as recommended time limit for ECP. TV/Radio 71(36.4%) is major source of information. Of total respondents (61.6%) had positive attitude toward making EC available to all women while (76.1%) have an intention to use EC.*

Conclusion: *Knowledge and Utilization of Emergency contraception is very low. The awareness of time gap and type of EC is poor. Increasing awareness of EC and media coverage on EC including type and time gap of EC is essential.*

Key Words: *Assessment, Attitude, Emergency Contraception, Utilization, Abomsa*

INTRODUCTION

Emergency contraception (EC) refers to contraceptive methods that reduce the chance of pregnancy following unprotected sexual intercourse. The methods are intended for use after sexual intercourse when no contraception is used, regular contraceptive method does not work or if a woman is sexually assaulted (Jima *et al.*, 2016). A woman can take emergency contraceptive pills (ECPs) within 72 hours after unprotected intercourse to reduce her risk of becoming pregnant. Progestin pills are more effective and are associated with fewer side effects than combined emergency contraceptive pills. Another form of EC is the insertion of a copper intra uterine device (IUD) by a trained healthcare professional. The EC methods are intended for occasional use, primarily as a backup to regular methods of birth control (Schorge *et al.*, .2008). There are two methods of emergency contraception available: hormonal methods, also known as emergency contraceptive pills, and post-coital insertion of a copper intrauterine device. The two most commonly used oral emergency contraception regimens are the progestin-only regimen and the combined estrogen–progestin regimen. The hormonal methods prevent pregnancy by delaying or inhibiting ovulation or by disrupting the function of the corpus luteum. ECPs may also alter the endometrium and impair implantation (WHO, 2009).

Globally, at least 585, 000 women die each year are related with unintended pregnancy and delivery (Ahmed, 2010). Each year, throughout the world, approximately 210 million women become pregnant and over 135 million of them deliver live born infants. (Singh *et al*,. 2009). The remaining 75 million pregnancies end in stillbirth, or spontaneous or induced abortion. It was estimated that in 2003 approximately 42 million

pregnancies were voluntarily terminated: 22 million safely and 20 million unsafely (Sedgh *et al*., 2007). It is estimated that out of 500,000 maternal death that occur each year throughout the world as many as one quarter to one third may be consequence of unsafe abortion procedure (Tadesse *et al*., 2001). Where effective contraceptive methods are available and widely used the total abortion rate declines sharply, but has nowhere declined to zero for several reasons: Millions of women and men either do not have access to appropriate contraceptive methods, or do not have adequate information and support to use them effectively. High rates of violence against women including in the home and in war lead to unwanted pregnancies (Bongaarts and Westoff, 2000)

In east Africa the incidence rate is estimated to be 39 per 1000 and accounts for 17% of all maternal deaths in the region. More than half maternal deaths in Africa are due to unsafe abortion that occurs in age below 25 years of age (WHO, 2007). Therefore, it is believed that ECPs can help reduce the number of unintended pregnancies, as well as the number of abortions and associated maternal deaths. However, utilization of ECPs is relatively low. A survey result in Ethiopia indicates, current use of contraception is lower among women of reproductive age between 15 to 24 years and among all reproductive age groups, only 43.3% of sexually active unmarried women use modern contraceptive methods (Govindasamy *et al.,* 2002; CSA, 2005. In the past, EC was not accessible to women, which resulted in high number of unintended pregnancies and unsafe abortions. (ESOG, 2005) According to EDHS of 2016 only 19% of women aged 15-19 yrs have heard about emergency contraception which ranges from 16% and 41% for currently married and sexually active unmarried women respectively (MOH, 2011).

According to Ethiopian Society of Obstetrician (2005), the following are emergency contraceptives that are currently in use: Combined Oral Contraceptive Pills (COCPs): An increased dose of combined oral contraceptives containing ethinyl estradiol and levonorgestrel (Yuzpe's regimen); Progesterone Only Pills (POPs): High dose Progesterone Only Pills containing levonorgestrel; Intrauterine Contraceptive Devices (Copper Releasing Intrauterine Contraceptive Devices); Mefipristone (Ru486): anti progesterone. The usual combination hormonal formulation consists of 100 g ethinyl estradiol and 500–600g levonorgestrel in several tablets administered twice, 12 hours apart. The first dose is administered within 72 hours of intercourse. The levonorgestrel-alone formulation requires administration of 750 g of the progestin twice, also 12 hours apart. Regimens are more effective the sooner they are taken after unprotected sex. Emergency hormone contraceptive regimens are highly effective and decrease the risk of pregnancy by up to 94% (James *et al.,* 2003). Post coital insertion of a copper IUD within 5 days appears to be even more effective than steroids for emergency contraception. The post-coital IUD may remain in place to provide ongoing contraception (WHO, 2007 and SOGC, 2003). Emergency contraception is sometimes confused with medical abortion. However, whereas medical abortion is used to terminate an existing pregnancy, emergency contraception is effective only before a pregnancy is established. Emergency contraception can prevent pregnancy during the 5 or more days between intercourse and implantation of a fertilized egg, but it is ineffective after implantation (ACOG, 2010). The need for emergency contraception is clearly demonstrated by the occurrence of high magnitude of unwanted pregnancy and induced abortion. If emergency contraception is easily available and distributed along with appropriate advocacy and information education and communication (IEC) activities millions of unwanted pregnancies and abortions could be averted (Temesgen, 2014).

46.5% sexually active urban women and 8.6% rural women had knowledge about emergency contraception, but very few (1.6%) of sexually active urban women have ever used EC (UNPF, 2010). Similar study among females aged 15 to 24 years shows that only 21% of sexually active unmarried women have awareness of EC and insignificant proportions (0.1%) have ever used it (Jima *et al.,* 2016).The underutilization of EC among women implies limited awareness about availability of method and unfavorable or negative perception towards EC. Different institutional based studies, however, have shown that the knowledge and practice in relation to emergency contraception are limited among women (Tajure, 2010; Worku, 2011). Thus, understanding the knowledge, attitude and practice of EC among unmarried women is critical for countries like Ethiopia with a population policy aiming at reducing unwanted pregnancy. Unfortunately little research has been conducted in this area in the country at community level. Therefore, this study is initiated with the following objectives:

General objective

- The general objective of the study is to assess knowledge, attitude and utilization of emergency contraception among women of reproductive age in Abomsa town.

Specific objectives

- To assess knowledge of reproductive age women about emergency contraception methods.

- To assess the attitude of reproductive age women toward emergency contraception methods.
- To identify emergency contraceptive utilization of reproductive age group in Abomsa town.
- To identify factors associated with Emergency contraceptive utilization.

MATERIALS AND METHODS

Description of the Study Area

The study area, Abomsa, is capital town of Merti werada, Arsi administrative Zone located 202Km far away from Addis Ababa and 178 Km from Asella, capital of Arsi zone. Abomsa town has total population of 20,494 of which 51 % are females and 49% are males. There are two kebeles. There are 9340and 11154 populations in kebele 01 and 02 respectively. There is one hospital which functions as referral center, one governmental Health station and five different medium private clinics in the town. There are 1 preparatory, 1 secondary school and 3 elementary schools and TVET College. Family planning and maternal health services are provided free of charge in all public health facilities located in the study districts. Modern contraceptive methods in the form of Injection, Pills, Implants, Male condoms and counseling on Lactational Amenorrhoea Method (LAM) are available in the health posts. In addition to the contraceptive methods available at the health posts, the Intra Uterine Devices (IUDs) are available in the health centres and Hospital, and permanent contraceptive methods (surgical sterilization) are available in the Hospital. Post pill is the most commonly used EC in the area.

Study Design and Study Population

Descriptive cross-sectional study design was conducted from February to April 2018 in Abomsa town. The source population was all women of reproductive age (15–49 years) who live in Abomsa town.

Sample size and Sampling technique

Sample Size determination: The sample size was calculated using a single proportion sample size determination formula with the assumptions of a assuming the proportion of women who are aware of emergency contraception to be 43.5% (Jima *et al.*, 2016), with 5% marginal error, 95% confidence interval and 5% non-response rate. The sample size (n) was calculated using a standard formula:

$$n = \frac{(z)^2 (p*q)}{(d)^2}$$

$$n = \frac{(1.96)^2 (0.5*0.5)}{(0.05)^2} = \frac{0.96}{0.0025} = 384$$

After finite population correction, since study population is defined. Then use $n = \frac{n}{1+ (n/N)}$

N=561 students =384/ (1+384/561)=384/1.67 =229
After multiplying by 1.5 design effect = 229*1.5=344
Adding 20% nonresponse=344+344*20%= 344+69=413

Where: n = sample size
z = statistical certainty usually chosen at 95% confidence level, that is, z = 1.96
p = estimated level/coverage to be investigated, usually p = 0.5 is chosen
q = 1-p
d = precision desired, which need to be less than 10% and then for this research d = 5%. The calculated sample size was 384 unmarried women (15–49 years). However, with a further assumption of a 5% none response rate and an adjustment for a design effect of 1.5 , the final calculated sample size for the study will be 413 women of reproductive age (15–49 years) in Abomsa town.

Sampling Technique: Systematic sampling was conducted. The sample was chosen by selected by a random starting point and then picked every 5th house hold in succession from the sampling frame, it was calculated by: The house hold with the following numbers was comprised the systematic random sampling :
r,r+I,r+2i,r+3i,r+4i, …,r+(n-1)i.

Inclusion and exclusion criteria

Inclusion criteria: women of reproductive age group in Abomsa town were included.
Exclusion criteria: women of reproductive age, who have difficulty in communicating; who have mental problem and non-Ethiopian citizens during the study period were excluded. Women that participated in pre-test interview were excluded from the in-depth interview.

Data collection Methods: Data was collected using an interviewer-administered semi-structured questionnaire. The data collection tools regarding the various socioeconomic, demographic and environmental variables were adopted from Ethiopian Demographic and Health Survey (EDHS) questionnaire with some modification to fit with the context of this research. The questionnaire was designed to ask the Utilization of the participants first before asking them on their knowledge. This is to ensure that the participants' responses on their Utilization would not be biased by the questions on knowledge. The knowledge was assessed by asking the respondent 'have you ever heard about emergency contraception' and in case of positive response they were asked further to mention the method they know. Regarding the attitude the respondent was asked "to whom EC should be given?" and the response "to all women who need it" will be considered as positive attitude. The others like; to married women only, to young female and to rape victims will be considered as negative attitude. The utilization was assessed by asked the question "Have you ever used EC?" to know their previous use of EC.

Data quality control: The questionnaire was prepared first in English then translated to (Afan Oromo) for data collection by language expert. To insure consistency of the translation with the English version; the questionnaire was translated back to English by another language expert. Before the actual data collection, the questionnaire was pretested on 5% (20 women) of the sample size in the same district from those kebeles not included in sample. Data was collected by four female personnel. Data collectors were supervised by investigator.

Variables of the study

Attitude: an opinion or general feeling about something.
Knowledge: general awareness or possession of information, facts, ideas, truths, or principles.
Utilization: The state of having been made use of.

Dependent variable

Knowledge (on methods to prevent unwanted pregnancy, source of information, time gap to take after unprotected sex), attitude and utilization of EC.

Independent variable

Socio-demographic information such as age, parents' educational status, living condition, parents' income, reproductive history (sexual experience, age of first sex, reason of sexual practice, pregnancy, outcome of pregnancy).

Data Analysis

Data was coded, cleaned and entered to the computer used Epi- Info version 3.5.1 and analyzed by SPSS version 20.0. Descriptive statistics was done. The association of each independent variable on the dependent variables was tested by using binary logistic regression. P-value of <0.05 was considered as significant.

RESULTS

Socio demographic characteristic of respondents

Out of expected 413 respondents 407 agreed to participate 6 women were refused. Out of 407 filled questionnaires, fourteen questionnaires were incomplete and discarded. Three hundred ninety three respondents filled questionnaires completely yielding response rate of 95.15%. The age of women ranged from 15 to 35 years with median age of 29. Majority of the respondents 217(55.2%) were from urban and 176(44.8%) were from rural. Two hundred two (51.4%) respondents live with their husbands, 58(14.8%) live with peer in rental house, 98(24.9%) live alone in rental house, 26(6.6%) live with parents and the remaining 9(2.3%) live with others (grandparents, relatives, boyfriend).

Three hundred sixty seven (93.4%) of respondents' fathers are alive and 375(95.4%) of respondents' mothers are alive of them 208(52.9%) are both farmers, 81(20.6%) are both employee, 75(19%) are both traders and 29 (7.3%) on others. One hundred eighty five (50.4%) of respondents' fathers have monthly income of above 1000ETB and 52(14.2%) of them are illiterate. One hundred three (27.5%) of respondents mother have monthly income of above 1000ETB and 67(17.9%) of them are illiterate (Table 1).

Table 1: Socio-demographic characteristic of respondents,Women of Reproductive Age in Abomsa Town, May 2018.

Variable	Frequency	Percentage (%)
Age		
15-20	84	21.4
21-25	119	30.3
26-30	143	36.4
31- 35	47	11.9
Residence		
Urban	217	55.2
Rural	176	44.8
Living condition		
With parents	26.	6.6
With peer in rental house	58	14.8
Alone in rental house	98	24.9
With husband	202	51.4
Other	9	2.3
Parent occupation		
Both farmer	208	52.9
Both employee	81	20.6
Both traders	75	19
Other	29	7.3
Father alive		
Yes	367	93.4
No	26	6.6
Father education		
Illiterate	52	14.2
Elementary	132	35.9
Secondary	90	24.5
College and above	93	25.3
Father income		
Less than 300ETB	45	12.3
301-600ETB	57	15.5
601-1000ETB	80	21.8
Above 1000ETB	185	50.4
Mother alive		
Yes	375	95.4
No	18	4.6
Mother education		
Illiterate	67	17.9
Elementary	117	31.2
Secondary	99	26.4
College and above	92	24.5
Mother income		
Less than 300ETB	43	11.4
301-600ETB	114	30.4
601-1000ETB	115	30.7
Above 1000ETB	103	27.5

Reproductive History of Respondents and contraceptive utilization

Out of 393 respondents 284(72.3%) had ever had sexual experience among them 44(15.5%) had sex before age of 18yrs, 240(84.5%) at age of 18yrs and after. From these respondents the reason for sex was, marriage 147(51.8%), rape 4(1.2%), love 124(43.7%) and other 9(3.2%). One hundred eighty seven (65.8%) of those who had sexual experience get pregnant, 103(55.1%) of them once and the other 46(24.6%) twice, and 38(20.3%) three times. From these pregnancy 83(44.4%) was unwanted pregnancy. Seventy two (86.7%) of unwanted pregnancy ended up in induced abortion while 11(13.3%) ended up in child birth. From those induced abortion

7(9.7%) of them was at local abortionist while 65(90.3%) of them was at clinic/hospital. From 393 respondents 198(50.4%) have heard about contraception and only 51(13%) of the respondents had ever used contraception. Out of 393 respondents 284(72.3%) respondents had communication on reproductive health (Table 2).

Table 2: Reproductive history and contraceptive utilization of respondents, Women of Reproductive Age in Abomsa Town may 2018.

Variable	Frequency	Percentage (%)
Sexual experience		
Yes	284	72.3
No	109	27.7
Reason for sex		
Rape	4	1.2
Marriage	147	51.8
Love	124	43.7
©Other	9	3.2
Age of first sex		
Before 18yrs	44	15.5
18yrs and after	240	84.5
Pregnancy		
Yes	187	65.8
No	97	34.2
Number of pregnancy		
Once	103	55.1
Twice	46	24.6
Three times	38	20.3
Wanted pregnancy		
Yes	104	55.6
No	83	44.4
Outcome of pregnancy		
Child birth	11	13.3
Induced abortion	72	86.7
Abortion performed at		
Clinic/hospital	65	90.3
Local abortionist	7	9.7
Heard about contraception		
Yes	198	50.4
No	195	49.6
Ever used contraception		
Yes	51	13
No	342	87
Communication on RH		
Yes	284	72.3
No	109	27.7

Knowledge, attitude and Utilization of emergency contraception

One hundred ninety fife (49.6%) of respondents had ever heard about emergency contraception. One hundred twenty (61.5%) of those who have heard about emergency contraception mentioned pills, 16(8.2%) mentioned IUD, 23(11.8%) mentioned pills and IUD and 36(18.5%) mentioned other. Most of the respondents 71(36.4%) mentioned TV/Radio as source of information, 57(29.2%) heard from more than two source of information (i.e. TV/Radio, friend, RH club or health worker), 26(13.3%) from health worker and 16(8.2%) from formal education, 16(8.2%) family/friend, and 9(4.6%). Sixty three (44.1%) of those who heard about EC pills mentioned 72hrs as recommended time limit, 20(13.9.1%) mentioned 24hrs, 13(9.1%) mentioned immediately after sexual intercourse and 42(29.4%) do not know the time gap. five (12.5%) of those who heard about IUD mentioned 5 days as recommended time gap, 6(15.4%) mentioned 72hrs, 4(10.3%) mentioned 24hrs, 4(10.3%) mentioned immediately after sexual intercourse, 1(2.5%) mentioned 1 week and 19(48.7%) do not know the time gap.

Fifty one (13%) of the respondents had ever used EC. Forty nine (96.1%) used pills and 2(3.9%) used IUD and 14(27.5%) of them used EC once, 18(35.3%) twice, 9(17.6%) three times and 10(19.6%) more than three times.

The reason for EC use was, condom slippage in 3(5.9%), forced sex in 4(7.8%), not used contraceptive in 25(49%), forget to take contraceptive in 12(23.5%) and other in 7(13.7%) respondents. Of the respondents who had ever used EC 10(19.6%) get EC from public health institution, 11(21.6%) from private clinic, 24(47.1%) from pharmacy, 4(7.8%) from either of these at different time and 2(3.9%) mentioned other. Two hundred forty two (61.6%) of the respondents, think that all women who need EC should be given EC. While 72(18.3%) mentioned rape victim, 32(8.1%) mentioned married women only, 19(4.8%) mentioned young female and 28(7.1%) mentioned other. Two hundred ninety nine (76.1%) of the respondent have intention to use EC when need arises (Table 3).

Table 3: Knowledge about EC, Women of Reproductive Age in Abomsa Town; May, 2018.

Variable	Frequency	Percentage (%)
Heard about EC		
Yes	195	49.6
No	198	50.4
Type of EC		
Pills	120	61.5
IUD	16	8.2
Pills & IUD	23	11.8
Others	36	18.5
Source of information		
TV/Radio	71	36.4
More than two source	57	29.2
Health worker	26	13.3
Family/friend	16	8.2
Formal education	16	8.2
Others	9	4.6
Time gap of ECP		
Immediately	13	9.1
Within 24hrs	20	13.9
Within 72hrs	63	44.1
Within 5days	2	1.39
Within 1wk	2	1.39
After missed period	1	0.69
Do not know	42	29.4
Time gap of IUD		
Immediately	4	10.3
Within 24hrs	4	10.3
Within 72hrs	6	15.4
Within 5days	5	12.8
Within 1wk	1	2.5
Do not know	19	48.7
Ever used EC		
Yes	51	13
No	342	87
Method of EC		
Pills	49	96.1
IUD	2	3.9
Frequency of EC used		
Once	14	27.5
Twice	18	35.3
Three times	9	17.6
More than three times	10	19.6
Reason for use		
Condom slippage	3	5.9
Forced sex	4	7.8
Not used contraception	25	49
Forget to take Contraception	12	23.5

Other	7	13.7
Get EC from		
Public health institution	10	19.6
Private clinic	11	21.6
Pharmacy	24	47.1
Either of the above	4	7.8
Others	2	3.9
To whom EC should be given		
All women who need	242	61.6
Rape victim	72	18.3
Married women only	32	8.1
Young female	19	4.8
Others	28	7.1
Intention to use EC		
Yes	299	76.1
No	94	23.9

Respondent's Behavioral factors

Eighteen of the respondents (4.6%) chew chat 1(0.3%) smoke cigarette, 9(2.3%) drink alcohol, 13(3.3%) night club, 3(0.8%) uses two or more of them and 349(88.8%) uses none of them.

Table 4: Bad habits of respondents, Women of Reproductive Age in Abomsa Town; May/2018

Variable	Frequency	Percent (%)
Chewing chat	18	4.6
Smoking cigarette	1	0.3
Drinking alcohol	9	2.2
Night club	13	3.3
Two or more of them	3	0.8
None of them	349	88.8

4.5 Relationship of knowledge and independent Variable

OR (Odds Ratio)

1. OR > 1, the exposure is risk

2. OR = 1, there is no association

3. OR < 1, the exposure is Preventive

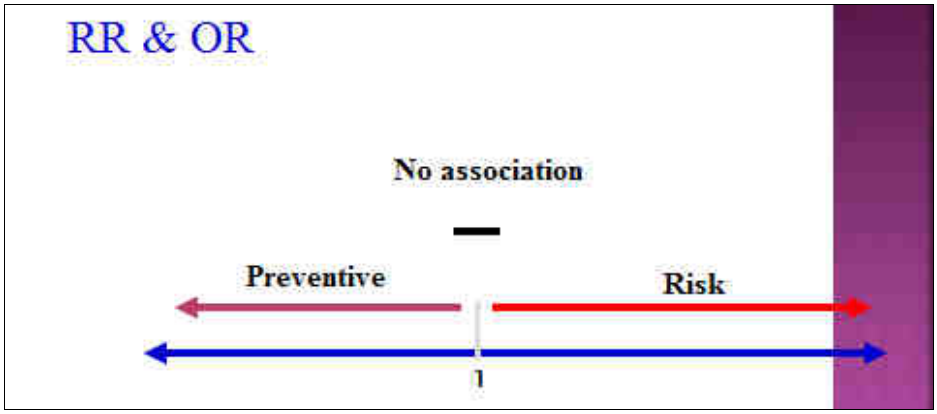

Figure 1: Showing interpretation of odd ratios (ORs)

Respondents who are from rural had association with knowledge of emergency contraception COR 1.351(95% CI 1.001, 1.825) and AOR 1.252(95% CI 0.721, 2.177), those whose father learned elementary COR 1.364(95% CI 0.578, 3.219) and AOR 1.239(95% CI 0.518, 2.961), those whose father learned to secondary COR 1.792(95% CI 0.733, 4.380) and AOR 1.244(95% CI 0.555, 2.791), whose father's earn less than 300ETB COR 2.246(95% CI 0.839, 6.009) and AOR 2.309(95% CI 0.894, 5.964), whose father's earn 600 to 1000ETB COR 2.155(95% CI 0.877, 5.295) and AOR 1.886(95% CI 0.924, 3.847), had association with knowledge of Emergency contraception. Those who had no communication on reproductive health had significant association

with knowledge of Emergency contraception COR 4.474(95% CI 2.845, 7.034), AOR 3.717(95% CI 2.251, 6.137) and P value 0.00 (Table 5).

Table 5: Relation of knowledge and independent Variables, Women of Reproductive Age in Abomsa Town; May/2018.

Variable	Heard about EC		COR (CI 95%)	AOR (CI 95%)
Residence	yes	No		
Urban	132	85	1	1
Rural	62	114	1.351(1.001,1.825)	1.252(0.721,2.177)
Father alive				
Yes	177	190	1	1
No	17	9	0.709(0.317,1.587)	1.045(0.339,3.223)
Father's education				
Illiterate	23	29	1.597(0.650,3.926)	0.986(0.340,2.856)
Elementary	66	66	1.364(0.578,3.219)	1.239(0.518,2.961,)
Secondary	36	54	1.792(0.733,4.380)	1.244(0.555,2.791)
College and above	52	41	1.064(0.440,2.573)	1
Father's income				
<300ETB	17	28	2.246(0.839,6.009)	2.309(0.894,5.964)
301-600ETB	30	27	1.227(0.481,3.129)	0.977(0.439,2.174)
601-1000ETB	31	49	2.155(0.877,5.295)	1.886(0.924,3.847)
>1000ETB	99	86	1.091(0.475,2.506)	1
Mother alive				
Yes	189	10	1	1
No	186	8	0.844(0.278,2.557)	0.00
Mother's education				
Illiterate	31	36	0.946(0.300,2.978)	0.000
Elementary	54	63	0.907(0.290,2.833)	0.000
Secondary	47	52	0.739(0.219,2.489)	0.000
College and above	50	42	0.719(0.215,2.407)	0.000
Mother's income				
<300ETB	22	23	1.167(0.365,3.727)	0.556(0.229,1.346)
300-600ETB	51	63	1.441(0.456,4.557)	0.996(0.451,2.201)
600-1000ETB	61	54	0.914(0.277,3.017)	0.815(0.368,1.803)
>1000ETB	51	49	1.143(0.359,3.645)	1
Sexual experience				
Yes	145	139	1	1
No	78	31	3.651(2.250,5.924)	2.792(0.160,48.814)
Pregnancy				
Yes	151	36	0.145(0.062,0.338)	0.939(0.044,20.068)
No	73	24	0.376(0.215,0.658)	1.489(0.084,26.440)
Communication on RH				
Yes	188	96	1	1
No	31	78	4.474(2.845,7.034)	3.717(2.251,6.137)

4.6. Relation of attitude and independent variables

Respondents who are father learned elementary COR 2.095(95% CI 0.670, 6.555) and AOR 1.434 (95% CI 0.533, 3.856), whose father learned secondary COR 1.803(95% CI 0.555, 5.863) and AOR 1.252(95% CI 0.518, 3.026) had association with intention to use Emergency contraception (Table 6).

Table 6: Relation of attitude and independent Variables, Women of Reproductive Age in Abomsa Town; May/2018

Variable	Attitude		COR (CI 95%)	AOR (CI 95%)
Residence	Yes	No		
Urban	158	59	1	1
Rural	137	39	0.762(0.474,1.224)	0.641(0.341,1.206)
Father alive				
Yes	278	89	1	1
No	22	4	0.558(0.187,1.662)	0.440(0.110,1.763)
Father's education				
Illiterate	40	12	1.467(0.442,4.868)	0.949(0.288,3.127)
Elementary	97	35	2.095(0.670,6.555)	1.434(0.533,3.856)
Secondary	69	21	1.803(0.555,5.863)	1.252(0.518,3.026)
College and above	71	22	1.699(0.526,5.486)	1
Father's income				
<300ETB	36	9	1.375(0.378,5.004)	0.559(0.194,1.609)
301-600ETB	43	14	1.791(0.526,6.091)	0.662(0.270,1.622)
601-1000ETB	63	17	1.484(0.450,4.890)	0.576(0.262,1.269)
>1000ETB	136	49	2.057(0.675,6.272)	1
Mother alive				
Yes	286	89	1	1
No	13	5	1.428(0.429,4.749)	3.035(0.074,123.802)
Mother's education				
Illiterate	48	19	0.702(0.201,2.447)	1.346(0.035,52.116)
Elementary	94	23	0.708(0.205,2.446)	1.243(0.032,48.083)
Secondary	68	31	0.576(0.149,2.223)	0.915(0.023,36.917)
College and above	65	27	0.804(0.215,2.999)	1.465(0.034,62.564)
Mother's income				
<300ETB	32	11	0.792(0.224,2.801)	1.990(0.733,5.404)
300-600ETB	89	25	0.632(0.180,2.225)	1.197(0.484,2.957)
600-1000ETB	79	36	0.606(0.162,2.262)	0.986(0.394,2.468)
>1000ETB	76	27	0.760(0.215,2.685)	1
Sexual experience				
Yes	263	21	1	1
No	83	26	2.598(1.399,4.825)	0.000
Pregnancy				
Yes	169	18	0.272(0.094,0.787)	0.000
No	86	11	0.397(0.188,0.839)	0.000
Communication on RH				
Yes	226	58	1	1
No	75	34	1.387(0.861,2.235)	1.355(0.794,2.313)

4.7. Relation of practice of Emergency contraception with independent variables

Respondents whose mother income is 601 to 1000ETB COR 1.152(95% CI 0.218, 6.072) and AOR 1.073(95% CI 0.243, 4.736) and those who had no communication on reproductive health COR 3.763(95% CI 1.640, 8.636) and AOR 1.457(95% CI 0.468, 4.530) had association with Utilization of Emergency contraception. (Table 7)

Table 7: Relation of Utilization and independent Variables, Women of Reproductive Age in Abomsa Town; May/2018.

Variable	Utilization		COR (CI 95%)	AOR (CI 95%)
Residence	yes	No		
Urban	32	185	1	1
Rural	15	161	1.736(0.918,3.282)	0.826(0.297,2.303)
Father alive				
Yes	46	321	1	1
No	3	23	1.088(0.314,3.772)	2.295(0.283,18.622)
Father's education				
Illiterate	4	48	1.522(0.352,6.577)	1.335(0.155,11.524)
Elementary	15	117	0.815(0.219,3.033)	1.165(0.257,5.280)
Secondary	7	83	1.190(0.291,4.862)	0.527(0.122,2.280)
College and above	14	79	0.643(0.171,2.421)	1
Father's income				
<300ETB	3	42	1.826(0.341,9.789)	3.028(0.447,20.537)
301-600ETB	7	50	0.932(0.221,3.932)	1.115(0.250,4.963)
601-1000ETB	7	73	1.360(0.325,5.692)	2.597(0.626,10.769)
>1000ETB	29	156	0.708(0.199,2.518)	1
Mother alive				
Yes	46	329	1	1
No	4	14	0.769(0.165,3.580)	0.000(0.000)
Mother's education				
Illiterate	6	61	0.841(0.100,7.090)	0.000(0.000)
Elementary	11	106	0.539(0.066,4.390)	0.000(0.000)
Secondary	14	85	0.479(0.055,4.213)	0.000(0.000)
College and above	13	79	0.444(0.451,3.856)	0.000(0.000)
Mother's income				
<300ETB	4	39	2.000(0376,10.640)	0.452(0.077,2.646)
300-600ETB	19	95	0.909(0.186,4.436)	0.444(0.097,2.023)
600-1000ETB	17	98	1.152(0.218,6.072)	1.073(0.243,4.736)
>1000ETB	12	91	1.618(0.313,8.361)	1
Sexual experience				
No	39	70	1	1
Yes	5	279	48.365(16.765,139.528)	9.002(0.348,1674.325)
Pregnancy				
Yes	95	92	0.011(0.004,0.036)	0.075(0.000,15.802)
No	34	63	0.031(0.010,0.094)	0.246(0.001,47.478)
Communication on RH				
Yes	43	241	1	1
No	3	106	3.763(1.640,8.636)	1.457(0.468,4.530)

DISCUSSION

This study aimed to assess the knowledge, attitude, and practice on Emergency contraceptives among women of reproductive age in Abomsa town in the year of 2018. The age of respondents ranged from 15 to 35 years with median age of 29. Majority of the respondents 217(55.2%) were from urban and 176(44.8%) were from rural. This opposes studies done in Asella where 74.4% live in a town (Mengistu S, 2007). Out of 393 respondents 284(72.3%) had ever had sexual experience. This is higher than study done in Asella town and Adama where 29.2% and 29.4% respectively of respondents had sexual experience (Tilahun D., Aseffa T., Belachew T, 2010, Mengistu S, 2007). From these respondents the reason for sex was marriage 147(51.8%) and rape 4(1.2%), Rape is lower than study done among in Asella town and Central University College which were 49% and 19% respectively (Mengistu S, 2007, File T, 2013). This is may be the respondents hide their true history for fear of stigma.

One hundred eighty seven (65.8%) of those who had sexual experience got pregnant. This finding is higher than study done in Mekele which was 23(23.7%) of those who had sexual experience got pregnant. From these pregnancy was 83(44.4%) unwanted pregnancy. Seventy two (86.7%) of unwanted pregnancy ended up in induced abortion while 11(13.3%) ended up in child birth. Induced abortion in this study is higher than those in

Mekele and college students in Asella town (G/yohanes E.2009, Mengistu S, 2007) Only 7(9.7%) of induced abortion was performed by local abortionist. This is similar with study done in Mekele by G/yohanes E. in 2009.

From 393 respondents195 (49.6%) have heard about contraception and only 51(13%) of the respondents had ever used contraception. Contraceptive utilization is a little bit higher than study done in Mekele which was 10.3% (G/yohanes, 2009). One hundred ninety five (49.6%) of respondents had ever heard about emergency contraception. Which is almost similar with study done in Adama and Mekelle towns which was 46.8% and 44.7% respectively (Tilahun D. and Aseffa T. 2010, G/yohanes E.2009). This result is higher than study done among college female students in Asella which was 27.4% (Mengistu S, 2007) this is may be due to wide spread of information communication technology recently, but lower than study done in Dessie which was 69.9% (Nibabe WT, Mgutshini T, 2014). Most of the respondents 71 (36.4%) mentioned TV/Radio as source of information. This is similar with studies done in Mekele and Addis Ababa University (Tamire W., Enquselassie F,2007, G/yohanes E.2009). Sixty three (44.1%) of those who heard about EC pills correctly mentioned 72hrs as recommended time limit. This is similar with study done in Adama which was 43.7% (Tilahun D., Aseffa T., Belachew T.,2010). But lower than study done in Mekelle University which was 58.8% (G/yohanes E.2009).

Fifty one (13%) of the respondents had ever used EC. This result is higher than studies done at Adama , Mekelle , college in Asella and Addis Ababa University which were 4.7%, 5.7%, 2.4% and 4.9% respectively (Tilahun D. *et al*, 2010). But almost similar study done in Dessie where 15.4% of respondents had ever used EC (Nibabe WT, Mgutshini T, 2014). Two hundred forty two (61.6%) of the respondents, think that all women who need EC should be given EC and Two hundred ninety nine (76.1%) of the respondent have intention to use EC. This is higher than study done in Adama and Addis Ababa University which were 62.9% and 52.6% respectively (Tilahun D. *et al*, 2010). It is similar with study done in Mekele 75.7% have positive attitude (G/yohanes E.2009).

CONCLUSION

Knowledge of EC includes type of EC available, when to take EC, candidates of EC and time gap of taking EC after unprotected sexual intercourse. This study shows knowledge of EC is low, less than fifty percent of respondents ever heard about EC.

The study finding showed that the knowledge of emergency contraception from the total respondent is low. Most of the respondents who have ever heard of emergency contraception had positive attitude. The majority of respondents from those heard of EC were not knew the correct time limit to ECP including IUCD.

About thirty percent of those who heard about EC did not correctly mention types of EC available. Respondents who correctly mentioned time gap of talking EC is lower than similar study done in Mekelle University.

Utilization of EC is very low, 12.4%. This resulted in increased number of unwanted pregnancy and may be due to poor knowledge of EC.

Knowing type of EC, when to take EC and time gap of taking EC after unprotected or inadequately protected sexual intercourse is essential for Utilization of EC and to effectively prevent unwanted pregnancy.

Respondents who do not discuss on reproductive health has significant association with knowledge of EC this is may be due to those who discuss about reproductive health protected themselves from unprotected sex.
TV/Radio is the leading source of information about EC.

Competing interest:
The authors declare that there is no competing interest.

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