

# Assessment of Knowledge, Attitude and Practices on Use of Emergency Contraception among Women Seeking Post Abortion Care in Mbarara District

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## Abstract

**Background:** Unplanned and unwanted pregnancies carry a higher risk of morbidity and mortality, often due to unsafe abortion. Many of these unplanned pregnancies can be avoided using emergency contraception. Literature reveals that there is existence of knowledge, attitude and practice gaps on emergency contraception in the world including Uganda. Therefore the objective of this study was to assess knowledge, attitude and practices of women seeking post abortion care on use of emergency contraception.

**Method:** A cross sectional study was conducted among 235 women seeking post abortion care in 6 health units in Mbarara district. Women seeking post abortion care were purposively selected participants. Questionnaires were used to collect the data. Data processing and analysing was done using Statistical Package for Social Sciences (SPSS) version 20.

**Results:** Less the half of the respondents 94 (40%) were knowledgeable of emergency contraception and age and marital status were significantly influencing knowledge (or 1.43 C.I 0.589 3.491) and (1.10; C.I 0.365 3.322) respectively. The majority 174 (74.0%) had positive attitude toward emergency contraceptives knowledgeable of emergency contraception significantly influenced this [OR=2.48, 95% CI (1.340, 4.570)]. Only 20 (8.5%) had ever used ECs. It was found out that knowledgeable women were 3.1 times more likely to use emergency contraceptives than their counterparts with low knowledge about emergency contraception.

**Conclusion:** The study indicated low level of knowledge; very low level of practice and majority showed positive attitude towards emergency contraceptives.

**Keywords:** Contraceptives • Abortion • Morbidity • Mortality

## Introduction

Worldwide, more than two hundred twenty Million women conceive every year, approximately 80 million of these pregnancies are unintended; fifty six million end in induced abortion which is about 25% of all pregnancies. 25 million (45%) of these induced abortions are unsafe. 97% of all the unsafe abortions occur in developing world. In developing countries however, about 56% of all abortions are unsafe compared to 6% in developed countries [1].

In Africa, among the annual number of induced abortions about 6.4 million, only 3% are performed under safe conditions. Eastern African countries contributed nearly 39.1% about 2.5 million of all induced abortions occur in Africa, putting East Africa at a higher rate than any other regions of the African continent [2].

In Uganda, it is estimated that 1.2 million unintended pregnancies occur every year, representing more than half of the country's 2.2 million pregnancies. Henry and colleagues add that the risk of pregnancy increases with a widening gap between sexual debut and age of first marriage. In Uganda nearly two thirds (64%)

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of women aged 25-49 years reported early sexual debut before the age of 18 years. The annual hospitalization rate for complications for unsafe abortion is estimated to be 12 per 1000 women aged 15-49 years. Although Ugandan law clearly allows abortion to save woman's life and 2012 national policy guidelines and service standards and sexual and reproductive health and rights permit abortion under additional circumstances like in cases of fetal anomaly, rape and incest among others and then extensive post abortion care to all who have had any types of abortion and do all possible measure to prevent abortion in all risky mothers, many providers and women remain unaware and as a result most abortions in Uganda are concealed procedures which are often unsafe that will result in increased maternal morbidity and mortality rate [3].

Close to one third of Ugandan women who have abortions each year are treated in health facilities for complications resulting from unsafe procedure. These can be conducted in public health units like district hospitals, specialist clinics like Reproductive health Uganda, Marriestopes Uganda, licenced private for profit health units and private not for profit hospitals. It is noted in the same article post abortion care services are hindered by stigma and fear for being mistreated if these women openly go for the service. Basing on previous findings where 52% of all pregnancies in Uganda as unintended, Guttmacher reports lean this to unmet need for modern contraception. They recommended improvement on modern contraception techniques and all possible measures on how they can be implemented. He adds that raising awareness of existing laws and policies on abortion in Uganda among the medical community and women so that every woman who meets the criteria for legal abortion and post abortion care including contraception should be able to obtain safe procedures at affordable cost [4].

Post abortion care services given at these centres include emergency treatment-evacuation of the uterus, post abortion family planning counselling and services and referrals and linkages with other reproductive health services. It is regrettable that regardless of all recommendations by stakeholders to curb the increasing trend of abortion and its complications, the use of contraceptives is not openly discussed among young unmarried women due to different cultural and religious beliefs, which exposes the young women to the increased risk of unwanted pregnancies. Studies show that in many African traditional culture settings, pregnancy before marriage is often viewed as a disgrace. For this reason, many unmarried females who get unintended pregnancies seek abortions services for fear of societal judgment. Remembering that abortion in Uganda is illegal it is usually unsafe and at times conducted by traditional herbalists [5].

Unintended pregnancy either ends with unsafe abortion with its complications or early child birth; it has a negative impact on the academic progress, future careers and even social interaction of young females especially students by forcing them to drop out of school [6]. In order to avert the unintended pregnancies and consequent adverse outcomes, contraceptive use has been prioritized as a key intervention; improving the universal access to sexual and reproductive health services. Despite the fact that different modern contraceptives exist worldwide, the problem of unintended pregnancy still exists, which could be due to gap in awareness, negative attitudes towards contraception, low accessibility or as a result of sexual assault.

At times, the knowledge and practice might be there but no contraceptive is 100% effective, and it is always very vital to have emergency contraception as a backup method. Emergency contraception is birth control measures that, if taken after unprotected sexual intercourse, contraceptive failure, incorrect use of contraceptives or in cases of sexual assault may prevent pregnancy. There are two methods of emergency contraception: Emergency contraception pills and copper-bearing intrauterine devices. Three types of emergency contraceptive pills are available at combined estrogen and progestin pills, progestin only pills, and antiprogestin pills efficient in 120 days at 75%-89% and IUD in 5-7 days at 99% [7].

It is regrettable however those women especially young women are still taking inadequate advantage of the contraceptive options available to them regardless of whether it is EC or regular contraceptive methods. The causes of this cannot be generalized for it differs from different studies, it is estimated that between 8 million and 30 million pregnancies each year result from contraceptive failure either due to inconsistent or incorrect use of contraceptive methods or failure of the method itself. For example, condoms can break, or couples may not be expecting or intending to have intercourse and fail to use prophylactics. That women may forget to take their birth control pill, or forget to take it on time and that some do not always consent to having intercourse and sexual assault occurs; or they are unable and do not have the capacity to consent. But for ECPs according to the studies done, international consortium for emergency contraception reported that 30.7% Ugandans have ever heard about EC and only 0.3% has used it and concludes that knowledge deficit could be the precipitating factor [8].

In whatever circumstances, women of whatever age are mothers of the nation and take the greatest part in socioeconomic development of the country. Thus, they should be protected from unintended pregnancies. Therefore this study was set out to assess the knowledge, attitude and practices of emergency contraception among women seeking post abortion care in Mbarara district, Western Uganda [9].

## Materials and Methods

### Study area

Study was Mbarara is one of the districts in the western region of Uganda about 267 kilometres, by road, southwest of Kampala. It is bordered by Buhweju district in the Northwest, Ibanda district in the North, Kiruhura and Isingiro districts in the east, Sheema district in the west and Ntungamo district in the south. The district has a total area of 1846.4 sq. Km and a land area of 1,778.4 sq. Km. By mid-2017, its population rates at 500, 200 people 51.3% females and 48.7% males. The study was done in 6 health facilities in Mbarara 2 government, 2 private not for profit and 2 private for profit Mbarara regional referral hospital, Mbarara municipal health centre iv; Marie-stopes, reproductive health Uganda; St Augustine medical center and Mayanja memorial hospital respectively in Mbarara were selected considering that they represent most of health institutions that provide Post abortion care services. Similarly abortion care seekers from these facilities can represent the majority of clients seeking the service in the study area as the majority of care seekers come to these facilities from different socio economic status of the society.

**Study design:** A cross sectional study design was used. Cross-sectional studies have been used in almost all research that has examined the knowledge, attitudes, and perceptions on contraception in the Africa and Western countries [10].

**Study population:** The study population included women seeking post abortion care in selected health units that were included in the sample during data collection based on the purposive sampling technique during the study period. At the facility, medical forms were checked immediately after doctor's review to confirm the diagnosis. Basing on the enrollment of the facility, about 9 (3.8%) of respondents were captured from, Mayanja memorial hospital, 12 (5.1%) from St. Augustine medical clinic and 11 (4.7%) from Mbarara municipal health centreiv, about 25 (10.6%) from reproductive health clinic, 129 (54.9%) from marie-stopes while 49 (20.9%) from Mbarara regional referral hospital. Sample size was determined using Kish and Leslie, 1965 following formula  $N = ZPQ/E^2$ . Total of 235 respondents took part in the study [11].

### Data collection procedures

The data collectors were staffs of respective units who have experience and working in respective health institutions and departments and who were providing care for the clients. The data collectors were trained by the Principal Investigator on the objectives of the study and how to interview. During the data collection process each questionnaire was checked daily in the mornings by the Principal Investigator for its completeness and accuracy [12].

### Data quality issues

**Validity:** To ensure validity, the questionnaire adapted in English version, translated in to Runyankole and then back to English to maintain its consistence for actual data collection purpose. In addition, the questionnaire was pretested for their accuracy and consistency or any ambiguities prior to the collection of data on five clients outside the study subjects. Validity was determined by posing a series of standardized questions. External validity is concerned with the application of the study findings to the real world. It is in fact, an issue of generalisability. The findings of this study will only be generalized to women in Mbarara Uganda [13].

**Reliability:** Questionnaire was self-administered as this did not allow participants to discuss questions with other clients. The researcher ensured that the information gotten was relevant to emergency contraception use and help in obtaining the correct responses. The questionnaire was short and clear for participants to understand easily. The collected data was organized daily after a day's work and reviewed by the principle investigator every morning.

**Data entry and analysis:** The raw data encountered during data collection was checked for accuracy of information, consistency and uniformity. The data was prepared in three tasks of; coding, entering and cleaning and finally analyzed quantitatively using SPSS version-20. Simple descriptive statistics, bivariate and multivariate techniques were applied to identify the factors associated with the likelihood of being aware and use of emergency contraception. The variables that were significant in the bivariate analysis were re-examined in the binary logistic regression in order to identify the significant relationships after controlling other variables [14].

**Ethical considerations:** Ethical clearance and permission was obtained from the Research Ethical Committee of Bishop Stuart University and the respective health institutions before the datacollection process started off. To reinforce voluntary participation, a participant was required to append her signature/thumb print on a consent form after being informed about the purpose of the study and the importance of their participation in the study. Issues of confidentiality, respect and anonymity were explained and emphasized. Data collection was done in privacy; between a researcher and a respondent and or one more witness chosen by the respondent in case she did not know how to read and write or any other instance that deemed it necessary. Participant's identity was kept confidential since the questionnaire did not request participants to reveal their identity. Records of the survey and the consent forms were kept in a safe and private place.

## Results

### Socio-demographic characteristics of the respondents

235 respondents took part in the study and all (100%) completed the questionnaire [15]. More than a third of respondents 91(38.7%) were in the age range of 20-24 year with mean age of 21.7 years, 87 (37.0%) were Catholics, and 210 (89.4%) were married (Table 1).

Variables	Frequency	Percent
<b>Age (Years)</b>		
15-19	33	14
20-24	91	38.7
25-29	76	32.3
30-34	23	9.8
35-39	12	5.1
Total	235	100
<b>Religion</b>		
Anglican	55	23.4
Catholic	87	37
Moslem	67	28.5
Born again	5	2.2
Others	21	8.9
Total	235	100
<b>Education level</b>		
No studied at all	10	4.3
Primary	89	37.9
Secondary	113	48.1
Technical and profession courses	19	8.1
University	2	0.9
Post graduate	2	0.9
Total	235	100
<b>Marital status</b>		
Married	210	89.4
Single	21	8.9
Separated	3	1.3
Widowed	1	0.4
Total	235	100
<b>Occupation</b>		
House wife	113	48.1
Sexual worker	5	2.1
Office worker	5	2.1

Student	3	1.3
Daily labourer	23	9.8
Trader	25	10.6
House worker	1	0.4
Health worker	3	1.3
Teacher	15	6.4
Saloon operator	24	10.2
Peasant	18	7.7
Total	235	100

**Table 1.** Socio-demographic characteristics of respondents.

Reproductive history: About two thirds of respondents 172 (73.2%) had their first intercourse between 15-19 years and 173 (73.6%) had had at least two pregnancies in life, less than a quarter 33 (14.0%) had their first pregnancies and 26 (11.1%) had their last pregnancies un-intentionally [16]. About a quarter of the respondents 56 (23.8%) had had previous history of abortion and 16 (23.8%) had induced the last abortion (Table 2).

Reproductive history		
Age at first intercourse		
10-14	25	10.6
15-19	172	73.2
20-25	38	16.2
Total	235	100
Number of pregnancies respondent has ever had		
One	62	26.4
Two	89	37.9
Three	37	15.7
Above three	47	20
Total	235	100
Was first pregnancy wanted		
Yes	199	84.7
No	33	14
No response	3	1.3
Total	235	100
Was last pregnancy wanted		
Yes	209	88.9
No	26	11.1
Total	235	100
Reasons for becoming pregnant		
Forgot to take contraceptives	7	3
Rape	13	5.5
Pressure from partner	14	6
Lack of knowledge of contraceptives	17	7.2
Contraceptive failure	7	3
Condom rupture	2	0.9
No response	18	7.7
Pregnancy was planned	157	66.8
Total	235	100
If the respondent had induced the last pregnancy		
Yes	16	6.8
No	212	90.2
No response	7	3

Total	235	100
If the respondent had any history of abortion		
Yes	56	23.8
No	179	76.2
Total	235	100
Number of abortions ever had by respondents		
Never had abortion	179	76.2
1-2	50	21.3
3 and above	6	2.6
Total	235	100

**Table 2.** Reproductive history for the female Population.

**Respondents' contraceptive awareness and use:** Regarding contraceptive awareness, 177 (75.3%) respondents knew at least two methods of regular contraception but the most known method was oral contraceptive pills. 164 (69.8%) reported to have ever used modern contraceptive method (Table 3).

Contraceptive methods known to the respondents		
Oral pills	25	10.6
Oral pills and injection	53	22.6
Oral pills and condom	10	4.3
Oral pills and IUCD	14	6
Oral pills and rhythm	1	0.4
Injection	10	4.3
Injection and condom	1	0.4
Injection and IUCD	6	2.6
Condom	11	4.7
Condom and IUCD	6	2.6
IUCD	11	4.7
Three responses	60	25.5
Above three responses	26	11.1
Don't know any	1	0.4
Total	235	100
Respondents knowing at least two contraceptive methods		
≥ 2	177	75.3
<2	58	24.7
Total	235	100
Respondents that had ever used contraceptives		
Yes	164	69.8
No	69	29.4
No response	2	0.9
Total	235	100
Reasons for not using contraceptives		
Pregnancy was wanted	25	10.6
Not planned to have gender	9	3.8
Had concerns about side effects	5	2.1
Lack of knowledge of contraceptives	5	2.1
Partner opposed	2	0.9
Breast feeding	1	0.4
Religious morals	8	3.4
Had irregular menses	1	0.4
Are used by prostitutes	1	0.4

No response	13	5.5
Had ever used contraceptives	165	70.2
Total	235	100

**Table 3.** Regular contraception but the most known method was oral contraceptive pills.

### Awareness and knowledge of women seeking post abortion care on emergency contraception

More than two thirds 171 (72.8%) had heard about Emergency contraceptives than a quarter 63 (26.8%) had heard about it from friends, 80 (34.0%) knew that they are used to prevent unwanted pregnancies when other methods of contraception have failed. Only 18 (7.7%) reported that emergency contraceptives would be taken up to 72 hours and 28 hours (11.9%) reported that the recommended time between doses is 12 hours [17].

Responses on questions that were seeking for knowledge only 6 (2.6%) answered at least 9 out of 10 questions. Basing on the findings, the summary index for knowledge showed that only 94 (40.0%) were knowledgeable about Emergency contraceptives while the rest 141 (60.0%) were not knowledgeable [18]. Those who gave five or more response in favor of Emergency contraception among ten knowledge questions were considered, and the rest as not knowledgeable. (If respondents agree for positively stated questions (in favor of Emergency contraception) and disagree for negatively stated ones it was taken as having knowledge and the rest were taken as not having knowledge (Table 4) [19].

Variable	Frequency	Percentage
<b>Respondents who have ever heard about emergency contraceptives</b>		
Yes	171	72.8
No	55	23.4
No response	9	3.8
Total	235	100
<b>Sources where respondents got know about ECPs</b>		
Radio	53	22.6
Television	10	4.3
News papers	8	3.4
Health professionals	30	12.8
Books	1	0.4
Journals	5	2.1
Friends	63	26.8
Spouse	1	0.4
Relative	6	2.6
Teacher	2	0.9
Those that never heard about ECPs	65	23.8
Total	235	100
<b>Purpose of emergence contraceptives</b>		
Regular family planning	15	6.4
Prevent pregnancy when other methods have failed	80	34
Gives backup to other methods	16	6.8
Prevent pregnancy	56	23.8

Prevent unintended pregnancies	1	0.4
Emergency conditions	1	0.4
Don't know	66	28.1
Total	235	100
<b>Response on whether ECs are available in health facilities around</b>		
Yes	174	74
No	8	3.4
Don't know	53	22.6
Total	235	100
<b>Responses on contra indications of ECPs</b>		
HIV positive	28	11.9
HIV and pregnancy	2	0.9
If pregnant	92	39.1
If on family planning	9	3.8
Married	4	1.7
During menstrual period	9	3.8
After birth	2	0.9
I don't know	89	37.7
Total	235	100
<b>Time range to used ECPs</b>		
Up to 24	16	6.8
Up to 48	7	3
Up to 72	18	7.7
Up to 120	5	2.1
Up to one week	14	6
Before sex	16	6.8
Immediately after sex	12	5.1
I don't know	147	62.5
Total	235	100
<b>Responses on who prescribes ECPs</b>		
Nurses	56	23.8
Nurses and doctors	20	8.5
Nurses and midwives	16	6.8
Doctors	70	29.8
Pharmacist	7	3
Midwives	38	16.2
Community health worker	2	0.9
Social worker	2	0.9
No Response	10	4.3
I don't know	1	0.4
Three and above	13	5.5
Total	235	100
<b>Responses on sources of emergency contraceptives</b>		
Government H/C	35	14.9
Government and pharmacy	5	2.1
Pharmacy	39	16.6
Private clinics	58	24.7
Government h/c and private clinics	14	6
Pharmacy and private clinics	22	9.3
Three and above	11	4.7
Others	5	2.1



Dont know	46	19.6
Total	235	100
<b>Questions answered correctly</b>		
Answered at least 9 questions	6	2.6
Answered at least 7 questions	29	12.3
Answered at least 5 questions	59	25.1
Answered at least three questions	96	40.9
Answered at least one question	41	17.4
Attempted but did not answer any question right	3	1.3
Did not attempt	1	0.4
<b>Summary index for knowledge</b>		
Knowledge	94	-40
Not knowledgeable	141	-60
Total	235	-100

**Table 4.** Knowledge on ECP.

**Attitude towards emergency contraceptives:** More than a half of respondents 135 (57.4%) agreed that using Emergency contraceptive after unintended intercourse is important and very effective. 101 (43.0%) of respondents stated that use of emergency contraceptives poses a health risk. The minimal number 48 (20.4%) thought that emergency contraceptives if used cause sterility in future and the rest disagreed with it. Almost a half of the respondents 116 (49%) were willing to use or recommend Emergency contraception and the exact number were not willing. About three quarters of the respondents, 174 (74%) have positive attitude towards ECs while 61 (26.0%) of them have negative attitude (Table 5) [20].

Variable	Frequency	Percentage
<b>Do affect health</b>		
Yes	101	43
No	134	57
<b>Emergency contraceptives predispose to STI</b>		
Yes	89	37.9
No	146	62.1
<b>ECs hurt the baby</b>		
Yes	74	31.5
No	161	68.5
<b>Causes sterility</b>		
Yes	48	20.4
No	187	79.6
<b>Men may force women to always use</b>		
Yes	56	23.8
No	179	76.2
<b>Emergency contraception may be illegal</b>		
Yes	35	14.9
No	155	66
Don't know	45	19.1
<b>Emergency contraception causes abortion</b>		
Yes	77	32.8
No	35	14.9

Don't know	123	52.3
<b>Emergency contraceptives are effective on prevention of unwanted pregnancy</b>		
Yes	135	57.4
No	39	16.6
Don't know	61	26
<b>Respondents' willingness to use or recommend emergency contraception</b>		
Yes	116	49.40%
No	116	49.40%
No response	3	1.20%

**Table 5.** Emergency contraceptive after unintended intercourse is important and very effective.

**Practice of ECP:** Very minimal number 20 (8.5%) had ever used Emergency contraception and 32 (13.6%) had had necessity for use of ECs but did not use, of these 18 (7.7%) had not known about Emergency contraception. Only 14 (6.0%) first used at an age of 18-25 years and 11 (4.7%) encountered at least one problem (Table 6).

Variables	Frequency	Percentage
<b>Use of ECPs</b>		
Yes	20	8.5
No	215	91.1
Total	235	100
<b>Is there time that necessitated use of ECs and didn't use</b>		
Yes	32	13.6
No	199	84.7
No response	4	1.7
Total	235	100
<b>Reasons for not using ECPs yet it necessitated</b>		
Not knowing about ECPs	18	56.3
Not expecting pregnancy	7	21.9
Fear of sterility	3	9.4
Not having time	2	6.2
Didn't have money	2	6.2
Total	32	100
<b>Problems encountered following use of emergency contraception</b>		
Headache	2	18.2
Abortion	1	9.1
Infertility	1	9.1
Abnormal uterine bleeding	2	18.2
Breast tenderness	2	18.2
Nausea/vomiting	3	27.2
Total	11	100

**Table 6.** Respondent's practice of Emergency contraceptives.

### Bivariate analysis on factors related to knowledge about emergency contraceptives

At bivariate analysis, age of respondents was found to be associated with the knowledge of emergency contraceptives; respondents aged less than 30 years were 1.39 more likely to be knowledgeable compared to respondents who were in the age above 30 years. Marital status has a significant effect on knowledge of

emergency contraceptives among respondents; women who had ever married were found to be 1.4 times more likely to be knowledgeable of emergency contraceptives than those who are not married. Those who had used contraceptive were found to be 1.93 times more likely to be knowledgeable towards ECs than those who did not have an experience of use of regular contraceptive. Bivariate analysis of predictors of knowledge of emergency contraceptives among women seeking post abortion. According to bivariate analysis, respondents who were knowledgeable have 2.48 times more likely to have positive attitude towards EC as compared with those who were not knowledgeable respondents. Bivariate analysis of predictors of attitude of emergency contraceptives among women seeking post abortion care (Table 7) [21].

Variable	knowledgeable	Not knowledgeable	Total	Odds ratio	95% CI
<b>Age</b>					
More than 30	12 (34.3)	23 (65.7)	35		
Less than 30	82 (41.0)	118 (59.0)	200	1.39	0.094, 1.627
<b>Religion</b>					
Non-Christians	29 (33.0)	59 (67.0)	88		
Christians	65 (44.2)	82 (55.8)	147	1.61	0.930, 2.798
<b>Education</b>					
Not educated	4 (33.3)	8 (66.7)	12		
Educated	90 (40.4)	133 (59.6)	223	1.35	0.396, 4.629
<b>Marital status</b>					
Not married	10 (40.00)	15 (60.00)	25		
Married	84 (40.00)	126 (60.00)	210	1.40*	0.429, 2.331
<b>Occupation</b>					
Formal	51 (44.74)	63 (55.26)	114		
Non formal	78 (64.46)	43 (35.54)	121	0.68	0.403, 1.150
<b>Age at first intercourse</b>					
Above 20	14 (36.8)	24 (63.16)	38		
Below 20	80 (40.61)	117 (59.4)	197	1.17	0.572, 2.403
<b>Was the first pregnant wanted</b>					
Not wanted	25 (69.4)	11 (30.6)	36		
Wanted	83 (41.71)	116 (58.29)	199	1.63	0.758, 3.488
<b>Was last pregnancy wanted</b>					
Yes	83 (39.7)	126 (60.29)			
No	11 (42.31)	15 (57.69)		0.9	0.393, 2.052
<b>Was last pregnancy induced</b>					
Yes	10 (43.48)	13 (56.52)			
No	84 (39.6)	128 (60.38)		0.85	0.358, 2.035
<b>History of abortion</b>					
Yes	24 (42.9)	32 (57.14)			
No	70 (39.11)	109 (60.89)		0.86	0.466, 1.573
<b>Ever used family planning</b>					

No	27 (38)	44 (62.0)	71 (100.0)		
Yes	67 (40.9)	97 (59.1)	164 (100.0)	1.13	0.636, 1.993

**Table 7.** Bivariate analysis of predictors of knowledge of emergency contraceptives among women seeking post abortion care.

### Bivariate analysis on determinant factors related to Practice about Emergency Contraceptives

Knowledge of respondents towards emergency contraceptives was found to be positively associated with the practice of ECs; the likelihood of practice of ECs among respondents who were knowledgeable of emergency contraceptives was 5.16 times compared with those who were not knowledgeable towards emergency contraceptives (Table 8).

Variable	Positive attitude	Negative attitude	Total	Odds ratio	95% CI
<b>Age</b>					
More than 30	23 ( 65.71)	12 ( 34.29)	35		
Less than 30	151 ( 75.50)	49 ( 24.50)	200	1.61	0.745, 3.468
<b>Religion</b>					
Non-christians	60 ( 68.18)	28 ( 31.82)	88		
Christians	114 ( 77.55)	33 ( 22.45)	147	1.61	0.891, 2.916
<b>Education</b>					
Not educated	4 (33.3)	8 (66.7)	12		
Educated	166 ( 74.44)	57 ( 25.6)	223	1.46	0.422, 5.018
<b>Marital status</b>					
Not married	8 (32.00)	17 ( 68.00)	25		
Married	157 ( 74.76)	53 ( 25.24)	210	1.39	0.569, 3.416
<b>Occupation</b>					
Formal	85 ( 74.56)	29 ( 25.44)	114		
Non formal	32 (26.45)	89 ( 73.55)	121	0.95	0.529, 1.701
<b>Age at first intercourse</b>					
Above 20	30 (78.95)	8 (21.05)	38		
Below 20	144 (73.1)	53 (26.90)	197	0.72	0.312, 1.680
<b>Was the first pregnant wanted</b>					
Not wanted	23 (63.89)	13 (36.11)	36		
Wanted	151 ( 75.88)	48 ( 24.12)	199	1.78	0.831, 3.778
<b>Was last pregnancy wanted</b>					
Yes	17 ( 65.38)	9 (34.62)	26		
No	157 ( 75.12)	52 ( 24.88)	209	1.6	0.671, 3.803
<b>Was last pregnancy induced</b>					
Yes	17 (73.91)	6 (26.09)	23		
No	157 ( 74.06)	55 ( 25.94)	212	1.01	0.378, 2.685
<b>History of abortion</b>					
Yes	39 ( 69.64)	17 ( 30.36)	56		

No	135 (75.42)	44 (24.58)	179	1.34	0.689, 2.597
<b>Have you ever used family planning</b>					
No	27 (38.0)	44 (62.0)	71 (100.0)		
Yes	67 (40.9)	97 (59.1)	164 (100.0)	1.93	0.636, 1.993
<b>Respondents Knowledge</b>					
Not knowledge able	93(66.0)	48 (34.0)	141 (100.0)		
Knowledge able	46(48.9)	48 (51.1)	94 (100.0)	2.48	1.340, 4.570

**Table 8.** Bivariate analysis of predictors of attitude of emergency contraceptives among women seeking post abortion care.

**Multivariate analysis:** After controlling for variables, multivariate analysis has revealed that only age and marital status positively affect the knowledge of emergency contraceptives among women seeking post abortion care. However no variable significantly affected attitude towards use of emergency contraceptives (Table 9).

Variable	Ever used ECP	Not used ECP	Total	Odds ratio	95% CI
<b>Age</b>					
More than 30	2 (5.71)	33 (94.29)	35		
Less than 30	18 (9.00)	182 (91.00)	200	1.63	0.362, 7.366
<b>Religion</b>					
Non-Christians	5 (5.68)	83 (94.32)	88		
Christian	15 (10.20)	132 (89.80)	147	1.89	0.661, 5.384
<b>Education</b>					
Not educated	1 (8.33)	11 (91.67)	12		
Educated	19 (8.52)	204 (91.67)	223	1.02	0.125, 8.370
<b>Marital status</b>					
Not Married	5 (20.0)	20 (80.00)	25		
Married	15 (7.14)	195 (92.86)	210	0.31	0.101, 0.935
<b>Occupation</b>					
Formal	11 (9.65)	103 (90.35)	114		
Non formal	9 (7.44)	112(92.56)	121	0.75	0.300, 1.889
<b>Age at first intercourse</b>					
Above 20	2 (5.26)	36 (94.74)	38		
Below 20	18 (9.14)	179 (90.86)	197	1.81	0.402, 8.145
<b>Was the first</b>					

<b>pregnant wanted</b>					
Not wanted	7 (19.44)	29 (80.56)	36		
Wanted	13 (6.53)	186 (93.47)	199	0.29	0.107, 0.786
<b>Was last pregnancy wanted</b>					
Yes	8 (30.77)	18 (69.23)	26		
No	12 (5.74)	197 (94.26)	209	0.14	0.050, 0.379
<b>Was last pregnancy induced</b>					
Yes	6 (26.09)	17 (73.91)	23		
No	14 (6.6)	198 (93.40)	112	0.2	0.068, 0.588
<b>History of abortion</b>					
Yes	8	48	56		
No	12	167	179	0.43	0.167, 1.115
<b>Respondents knowledge</b>					
Not knowledge able	5 (3.6)	136 (96.4)	141 (100.0)		
Knowledge able	15 (16.0)	79 (84.0)	94 (100.0)	5.16	1.808, 14.750
<b>Respondents' Attitude</b>					
Negative attitude	4 (6.6)	57 (93.4)	61(100.0)	1	
Positive attitude	16 (9.2)	158 (90.8)	174 (100.0)	1.44	0.463, 4.497

**Table 9.** Bivariate analysis on predictors of practice of emergency contraceptives among women seeking post abortion care.

Knowledge on emergency contraceptives was positively associated with their use. Multivariate analysis on knowledge about emergency contraceptives (Tables 10 and 11).

Variables	Odds ratio	95% CI
Age	1.43	0.589, 3.491
Marital status	1.10	0.365, 3.322
Ever used regular family planning	0.97	0.505, 1.868

**Table 10.** Multivariate analysis on Knowledge about emergency contraceptives.

Variables	Odds ratio	P-value	95% CI
Marital status	0.701241	0.674	0.134, 3.669
Age at first intercourse	1.104783	0.905	0.2145, 5.689



Respondents knowledge	3.114	0.039	0.324, 5.988
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**Table 11. Practice of emergency contraceptive.**

## Discussion

This will present discussion of findings on knowledge regarding emergency contraception, attitude of women on emergency contraception and utilization of emergency contraceptives conclusion and recommendations and finally strengths and limitations.

### Knowledge regarding emergency contraception

From the study participants about three quarters of respondents 72.8% had heard of Emergency contraceptives. This is a good finding however of these 40% had knowledge about emergency contraceptives. This could be due to the source of information as the majority got informed from mass media (30.3%) and friends (26.8%) who themselves perhaps did not have all the facts to teach about emergency contraception. Only 12.8% had heard about ECs from health worker and but almost all who got information from health worker 12% were knowledgeable. This finding is different with outcomes of the study done among unmarried Women of reproductive age in Adama, Ethiopia (38.7%), female university students in Mekele town (44.7%) and Kampala where 45.1% of respondents had heard of emergency contraceptives. The difference could be supported by the fact that these two studies dealt with most of the unmarried women yet the present study has the majority (89.4%) as married which has as well been identified as significant factor for knowledge of emergency contraceptives.

Only 7.7% correctly identified 72 hours as the time limit for the method use. This showed knowledge deficit as far as emergency contraception is concerned among women seeking post abortion care. This finding was inconsistent with results from Dire Dawa, Ethiopia where (18.5% women seeking abortion services) where 28.3% female students in South West Ethiopia) correctly identified 72 hours as the time limit for the use of emergency contraceptives and much lower than results from Adama Ethiopia (81.3%). Furthermore, only 11.9% correctly identified the time interval between emergency pill doses as 12 hours however showed knowledge gap on use. This could be the reason why some users conceive and report contraceptive failure. The finding was almost similar (14.8%) with reports by Bisrat and friends in their study among south western female students in Ethiopia.

Basing on the findings of this study, the summary index for knowledge showed that less than a half of the respondents 40.0% were knowledgeable about Emergency contraceptives while the rest 60.0% were not knowledgeable. In this study we defined Knowledgeable as those respondents who gave five or more response in favor of Emergency contraception among ten (10) knowledge questions, and the rest as not knowledgeable. (If respondents agree for positively stated questions (in favor of Emergency contraception) and disagree for negatively stated ones it was taken as having knowledge and the rest were taken as not having). This finding was slightly more than the study by Maskeren and friends, where only 34.1% was knowledgeable about Emergency Contraception. And much more compared (24.1%) to findings from Female Students, Mizan-Tepi University, South West

Ethiopia however almost same results (45.0%) with a cross-sectional study among female college students at Mekelle town, Tigray region, Ethiopia. This poor knowledge predisposes women of the reproductive age to unwanted pregnancies so raising abortion cases and the complications attached in this matter.

This study revealed that there was significant relationship between knowledge of emergency contraception and age below 30 ( $P=0.02$ ), odds ratio 1.39, (0.094-1.627) this could be due to the exposure to mass media like television programs, internet like social media, and other search engines for health journals, and most of them being in urban environment where such services for awareness are in plenty. Marital status was also significant ( $P=0.04$ ) whereby Married women were 1.4 times more likely to have good knowledge than the un married (odds ratio 1.40, CI 0.429 2.331) This could be due to family planning lessons they always have during premarital counseling, antenatal visits, religious association meetings like mothers union which are specifically for married women. This finding concurs with finding by Haftom and friends, whereby respondents in age group 20-24, odds ratio 1.46, married females at odds ratio 2.43 were more likely to be knowledgeable about Emergency contraceptives.

Attitude of women on emergency contraception: Findings show that almost three quarters (74%) of the respondents had positive attitude towards emergency contraception while (26%) had negative attitude towards emergency contraceptives. Although educated women generally (74.4%) had a positive attitudes towards EC compared to counterpart 33% of the un educated had positive attitude which could be due to, inappropriate information about emergency contraception. The use of emergency contraception among those respondent with negative attitude compared to positive attitude was insignificant ( $p = 0.291$ ). The reason could be lack of information on the use and options of emergency contraception despite respondents' positive attitude to use of emergency contraception.

On further analysis, the results show that the extent of knowledge of respondents towards emergency contraception was a statistically significant factor for positive attitude towards emergency contraception and had a positive relation. The likelihood of positive attitude increased as the extent of knowledge of emergency contraception increased ( $P=0.02$ , odds ratio 2.48; CI, 1.340-4.570). Which is consistent with study conducted in Awassa town by Wondimu Bekele odds ratio 1.7 and mekelle town by Haftom and friends, (odds ratio 3.1) this shows that all factor that will contribute on the womens knowledge of emergency contraceptives will definitely influence their positive attitude towards the emergency contraception.

Utilization of emergency contraceptives: Findings show that only 8.5% had used emergency contraceptives, which is very low. This shows that respondents were not using emergency contraception which possibly is the cause of the unplanned pregnancies which result in abortion. University students are exposed to information, so are aware on where to find emergency contraceptives either from classroom lectures, media among others and this could be the difference as this study had only 1.8% reaching university level.

This study also revealed that there was a relationship between the respondents' age at first sexual intercourse and use of emergency

contraceptives. Women had had sexual intercourse by 20 years were 1.8 times more likely to use ECs than their counterparts less than 20 years. Females who start sexual intercourse at a young age are at high risk of unwanted pregnancies yet are always still in school. So they must put much emphasis on family planning so emergency contraception use. On multivariate regression, it was found out that knowledgeable women were 3.1 times more likely to use ECs than their counterparts with low knowledge about ECs. Due to this fact, low knowledge possibly could be the reason of low use of emergency contraception by respondents in this study.

## Conclusion

In conclusion, this study shows knowledge and utilization of emergency contraceptive methods were low. The study finding showed that the knowledge of emergency contraception is low regardless of the increased level of awareness as respondents had inadequate information about EC. This study showed that information on emergency contraception is not provided adequately by the health professionals and so rely on information from friends and media. Hence, there is a need to educate the community, in particular women of reproductive age about emergency contraception. Despite current level of awareness, the utilization of emergency contraception was relatively very low, only 8.5% of the total respondent had ever used emergency contraception in the past. This may increase the risk of unintended pregnancy which may result in induced abortion among women of reproductive age group.

## Recommendations

- In order to improve on knowledge, the health workers should give due attention to design strategies and strengthening the health education in all health facilities.
- Teachers should be educated much more on use of emergency contraceptives so as to affect knowledge in high schools and colleges.
- Further studies should be done on emergency contraceptives with wider study area and there by including more number of study population.
- The media as we see has played a pivotal role in spreading awareness among the women regarding emergency contraceptives. This can thus be used for motivating the young adults to adopt family planning methods and use of emergency contraception and give them the right and detailed facts about them.

## Study Limitations

- This study is focused on women who were seeking post abortion care, a specific population with failure in preventing pregnancy; it may not reflect the general condition of women in Mbarara district.
- More so, since all data collecting centres fell geographically in municipal area, it may not generalize to all women in mbarara district including women from rural areas.
- Lastly, the fact that self-reported information is subjected to reporting errors and biases and since the study touches sensitive

issues the possibility of underestimation cannot be excluded even though the survey was anonymous.

## Conflict of Interest

We declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported.

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## References

1. Jima, Aman, Segni MT, and Zergaw A. "Assessment of Knowledge, Attitude and Utilization of Emergency Contraception among Unmarried Women of Reproductive Age in Adama, Ethiopia." *Health Sci J* 6 (2016): 1-10.
2. Denberu, B, Alemseged F, and Segni H. "Determinants of Abortion among youth Seeking Reproductive Health Care in Selected Health Facilities, in Addis Ababa, Ethiopia." *Glob J Reprod Med* 2 (2017): 38.
3. Shiferaw, Zeleke, Gashaw BT, and Tesso FY. "Knowledge, Attitude and Practice of Emergency Contraceptives among Mizan-Tepi University Female Students, South West Ethiopia." *J Pain Manag* 2 (2016): 1-7.
4. Prada, Elena, Lynn M, Blades NM, and Bukenya JN, et al. "Incidence of Induced Abortion in Uganda, 2013: New Estimates Since 2003." *PLoS One* 11 (2016).
5. World Health Organization. "Family Planning: A Global Handbook for Providers: 2011 Update: Evidence-Based Guidance Developed Through Worldwide Collaboration ." (2011).
6. Abera, H., Mokonnen M, and Jara D. "Knowledge, Attitude, Utilization of Emergency Contraceptive and Associated Factors among Female Students of Debre Markos Higher Institutions, Northwest Ethiopia." *Fam Med Sci* 4 (2014).
7. Trussell, James, Henry N, Hassan F, and Prezioso A, et al. "Burden of Unintended Pregnancy in the United States: Potential Savings with Increased use of Long-Acting Reversible Contraception ." *Contraception* 2 (2013): 154-161.
8. Wohlwend, Jennifer, Glassman T, Dake J, and Jordan T, et al. "An Examination of Emergency Contraception Use by Undergraduate College Students in the Midwest Using the Integrated Behavioural Model." *Sex Education* 3 (2014): 257-271.
9. Abate, Meskerem, Assefa N, and Alemayehu T. "Knowledge, Attitude, Practice, and Determinants Emergency Contraceptive use among Women Seeking Abortion Services in Dire Dawa, Ethiopia." *PLoS One* 10 (2014).
10. Piccoli, K. "When Plan B becomes Plan A." (2009).
11. Davis, Angela. "Racism, Birth Control and Reproductive Rights." (2003): 353-367.
12. Tajure, Nasir. "Knowledge, Attitude and Practice of Emergency Contraception among Graduating Female Students of Jimma University, Southwest Ethiopia." *Ethiop J Health Sci* 2 (2010).

13. Tilahun, Dejene, Assefa T, and Belachew T. "Predictors of Emergency Contraceptive Use among Regular Female Students at Adama University, Central Ethiopia." *Pan Afri Med J* 1 (2010).
14. Tesfaye, Tatek, Tilahun T, and Girma E. "Knowledge, Attitude and Practice of Emergency Contraceptive among Women Who Seek Abortion Care at Jimma University Specialized Hospital, Southwest Ethiopia." *Bio Med Centre Women's Health* 1 (2012): 1-6.
15. Subedi, Sudarshan. "Knowledge, Attitude and Practice of Emergency Contraception among Youths of Parbat District." *J Health Allied Sci* 1 (2012): 50-53.
16. Trussell, James, Henry N, Hassan F, and Prezioso A, et al. "Burden of Unintended Pregnancy in the United States: Potential Savings with Increased Use of Long-Acting Reversible Contraception." *Contraception* 2 (2013): 154-161.
17. UBOS, ICF. "Uganda Demographic and Health Survey 2011." Kampala and Claverton: Uganda Bureau Statistics ICF International Inc (2012).
18. WRC, UNHCR. "Refocusing Family Planning in Refugee Settings: Findings and Recommendations from a Multi-Country Baseline Study." *United Nations High Commission Refug* (2011): 3-5.
19. Wambugu, Consolata JN. "Factors Influencing the Use of Emergency Contraceptive Pills among female Undergraduate Students in Kenya: A Case of Main Campus Hostels of the University of Nairobi." *University Nairobi* (2013).
20. World Health Organization. Clinical Practice Handbook for Safe Abortion. *World Health Organization* (2014).
21. Worku, Alemitu. "Knowledge, Attitude and Practice of Emergency Contraceptives among Female College Students in Arba Minch Town, Southern Ethiopia." *Ethiop J Health Dev* 3 (2011): 176-183.

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