IJMPR 2018, 2(5), 30-37

International Journal of Modern Pharmaceutical Research
www.ijmpronline.com

ISSN: 2319-5878
IJMPR
Research Article
SJIF Impact Factor: 3.458

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF SHAMBU PREPARATORY SCHOOL FEMALE STUDENTS TOWARDS USE OF EMERGENCY CONTRACEPTIVE

Chaltu Hinkosa[1]*, Dinka Dugassa[2] and Ginenus Fekadu[3]

[1]Department of Nursing, College of Health Science, Wollega University, Nekemte, Ethiopia.
[2]Shambu General Hospital, Fincha Valley Medical College, Shambu, Oromia, Ethiopia.
[3]Department of Pharmacy, College of Health Science, Wollega University, Nekemte, Ethiopia.

Received on: 01/08/2018
Revised on: 22/08/2018
Accepted on: 11/09/2018

***Corresponding Author**
Chaltu Hinkosa
Department of Nursing,
College of Health Science,
Wollega University,
Nekemte, Ethiopia.

ABSTRACT

Background: Emergency contraceptive (EC)is a type of modern contraception that is indicated after unprotected sexual intercourse following sexual abuse, misuse of regular contraception or non use of contraception.EC can reduce the risk of unintended pregnancy after unprotected sexual intercourse or contraceptive failure by 75% to 99%, if it is taken within 72 hours of sexual intercourse. It is estimated that of the 210 million pregnancies that occur each year, 80 million are unintended. In Ethiopia Unwanted pregnancy is a big problem; more than 60% of the pregnancies in adolescents are unwanted which is an alarming figure, and most of these pregnancies particularly in adolescents end up with unsafe abortion. **Objective:** To assess Knowledge, attitude and practice of Shambu Preparatory School female students towards use of Emergency Contraceptive. **Methodology:** A cross - sectional study design involving self administered structured questionnaire was conducted to asses Knowledge, Attitude and Practices toward Emergency Contraceptive among female students in Shambu Preparatory School from Feb 23, 2015 to March 23, 2018. **Results:** Response was obtained from 301 female students making the response rate 100%. Almost all of the respondents 279 (92.69%) were within age group of 15-19 years. and ranged from 15 to 30 years with a mean age of 17.40 ±1.53.Majority of the study subjects 264(87.70%) were from oromo ethnic group. And 245 (81.40) had urban background. The majority 264(96.34%) was single. Most 138 (45.85%) were protestant. The distribution of the study subjects on the bases of their grade showed that, 152 (50.50%) of the respondents were grade 11 students, and 149(49.50%) are grade 12 and 185(61.46%) were natural science students **Conclusion and Recommendation:** The majority of respondents in this study heard about EC and had good knowledge but most have negative Attitude and Practices of emergency contraceptive were low.EC is the only option of preventing unwanted pregnancy after unprotected sexual Intercourse. To raise client's skills on EC materials like pamphlet, news papers, Posters etc should be available in all libraries of high school, colleges, Health institutes and other Accessible areas.

KEYWORDS: Knowledge, Attitude, Practice, Shambu Preparatory School, Emergency Contraceptive.

1. INTRODUCTION

Emergency contraceptive (EC)is a type of modern contraception that is indicated after unprotected sexual intercourse following sexual abuse, misuse of regular contraception or non use of contraception.[1,2,3]

EC can reduce the risk of unintended pregnancy after unprotected sexual intercourse or contraceptive failure by 75% to 99%, if it is taken within 72 hours of sexual intercourse.EC are cost effective, medically safe, and highly effective to be used for prevention of unplanned pregnancy, unsafe abortion and other consequences.[4]

In Ethiopia Unwanted pregnancy is a big problem; more than 60% of the pregnancies in adolescents are unwanted which is an alarming figure, and most of these pregnancies particularly in adolescents end up with unsafe abortion.[5,6] According to the survey on abortion conducted in 2000 by Ethiopian society of obstetrics and gynecology(ESOG) in nine administrative regions, 25.6% abortion cares were induced abortions. Among abortion cases, 60% were unplanned, 60% were unwanted. Abortion related mortality was 1,209 per 100,000 live births.[5,7]

In about half of all unwanted pregnancies, conception occurs due to inadequate guidance to use contraception effectively, including the users' inability to address their feelings, poor attitudes towards contraceptives, and lack of motivations. Despite the Ethiopian governments effort to prevent unwanted pregnancies and abortion among youths of age less than 24 years the number of youths requesting termination of pregnancy is increasing annually. Despite The availability of contraceptive with affordable costs there is a large no of youths with unwanted pregnancies and unsafe abortion.[6] Thus understanding the Knowledge, attitude and practice of teenage girls towards EC is critical for countries like Ethiopia with a population policy aiming at reducing the unwanted pregnancy, Unfortunately, few researches have been conducted in the study area. Therefore, the aim of this study was to assess the Knowledge, attitude and use of EC among female students of; Shambu Preparatory School, Horro Guduru Wollega, Oromia Region, Ethiopia.

Unwanted pregnancy leading to unsafe abortion is one of the most important causes of maternal morbidity and mortality. Unsafe abortion is major medical and health problem in Ethiopia.[8]

It is estimated that of the 210 million pregnancies that occur each year, 80 million are unintended. In 2008, 21.6 million unsafe abortions were estimated to have occurred; Worldwide 1 in 10 pregnancies end in an unsafe abortion, globally 13% or 1 in 8 maternal deaths were due to unsafe abortion; almost all unsafe abortions take place in developing countries. 62% of all deaths (29 000) due to unsafe abortion occurred in the Africa Region, high unsafe abortion rates exist in parallel to low overall contraceptive use (<25%) in the Eastern, Middle and Western Africa Sub regions;. Unsafe abortion mortality ratio is higher in Eastern Africa.[9]

Each year, an estimated 19 million unsafe abortion occurs in the developing world, and around 70,000 women die from abortion –related causes where abortion is often legally restricted and maternal care services are lacking. In addition to those who die from unsafe abortions, tens of thousands suffer from chronic and sometimes irreversible health consequences, including infertility.[10,11]

In Ethiopia unwanted pregnancy and its untoward consequences on the physical and psychological well being of adolescent girls and young adult women is a problem. Unwanted pregnancy is one of the main factors for unsafe abortion. Unsafe abortion in Ethiopia accounts for nearly 60% of all gynecological admission & almost 30% of all obstetric & gynecologic admission.[12] Improving access of students for EC is essential in reducing unplanned conception. Practices of pre-university female students which are mainly based on their knowledge &attitudes are determining factors in accessing EC. Information on the knowledge, attitudes and practice of EC among female students of; Shambu Preparatory school is necessary. Without this information, it is difficult to design.

Article published in a national news paper with high circulation in India stated: The brazen abuse of the Over the counter emergence drug is triggering severe side effects, and sometimes even failing to prevent pregnancy, forcing girls to suffer the agony of successive abortions.[13] similarly, a well-read popular magazine, India today, quoted a leading gynecologist saying: cases of herpes, human immune deficiency virus (HIV), hepatitis have increased over the past few years because people are increasingly replacing the condom with the emergency pill.[14]

Ethiopia is the second most populous country in Africa with estimated population of 93,877,025 despite the substantial increase in the use of modern contraceptive from 6% in 2000 to 27.3% in 2011.one of such method is EC. wich was introduced in Ethiopia in 1997.There is no national data exist on the percentage of Ethiopian women who have used EC. However, studies in different parts of the country show very low utilization rate (as low as 10 %) of the method despite the significant proportion of youth have ever had sex in their life time the most frequently reported reasons for the non-use of the method are fear side effect and lack of information (knowledge). the knowledge of sexually active unmarried women, in this regard it is found to be 41% nationally which is very much lower than what is expected to be.[15-18]

Knowledge of EC is crucial in preventing unwanted pregnancy but previous related study reviled that the knowledge and use of EC is very low.[19] Thus this study was designed to investigate the prevailing Knowledge, Attitude and Practice of ECs and related gaps among female students of Shambu Preparatory School. From the finding of this research one can learn the status of Knowledge, attitude and practice of students towards using EC. And the finding of this research can also show us the real picture EC utilization by preparatory Students. Government and Non Governmental organizations working in this area will get important information that will help them to address the gaps. Similar studies could also be promoted by using the finding of this research

2. Methodology 2.1 Study Area

The study was conducted in Shambu Preparatory School .which is found in Shambu town, Oromia Region, Ethiopia. Shambu town is located 315km west of Addis Ababa. The town has many governmental and private organizations that provide services to the community such as Government Hospital and Health center, kindergartens, elementary, Junior Secondary and preparatory schools, colleges, colleges and one branch of Wollega University. Telephone, electric, banks, post office, private pharmacy, clinics, drug vendors, etc are

from the most prominent mentionable services provided in Shambu town.

2.2. Study Design and Period
A cross - sectional study design involving self administered structured questionnaire was conducted to asses KAP of ECs among female students in Shambu Preparatory School from Feb 23, 2015 to March 23, 2018.

2.3 Source Population
The source population was all adult female students in Shambu town.

2.4 Study Population
The study population was all female students in Shambu Preparatory School.

2.5. Sample Size and Sampling Technique
Sample size determination is calculated by using the following formula which is for N >10,000.

$n=z^2p\ (1-p)/d^2$, where
n= sample size needed.
Z = confidence level,
95%=1.96.

Taking P, as there was no previous study conducted in Shambu Preparatory School on the current topic, 50% expected prevalence EC will be used.
p = 0.5

d^2 = margin of error,
5% = 0.05

nf = final population
N = total population

When
Z=1.96,
P= 0.5, AND d2= 0.05
$=1.96^2 2$
=384.16

But, since the study population was less than 10,000(which was 827), the following adjustment formula was used to calculate the final sample size.

Where: ni =initial sample size
nf =final sample size
N= number of population

So the sample size becomes
nf = 262

Adding some 15% for non response rate, the sample size used for this study was 301 female students in Shambu Preparatory School.

A simple random sampling technique with a lottery method was used to select 301 voluntary female students those available in Shambu Preparatory School during the study period.

For this study a self-administered structured questionnaire was prepared by the investigator. The questionnaires contain open as well as closed ended questions which covers socio demographic information, knowledge, attitude and practice on EC. It was prepared in English and was translated to Afan Oromo language.

2.6 Inclusive and exclusive criteria
2.6.1 Inclusion criteria
Selected voluntary female students were included.

2. 6.2 Exclusion criteria
Those students who are impaired vision and not willing to participate was excluded

2.7. Study Variables.
2.7.1 Dependent Variables
Knowledge, attitude and practice (KAP) of emergency contraceptives

2.7.2 Independent Variables
Age
Sex
Grade
Religion
Marital status

2.8. Recruitments of Data collectors
Three wollega university students was used as data collectors after they are given training about the aim of the study, and data collection techniques. In each class Selected Female Students of Shambu Preparatory School Was informed about the purpose of the study, importance of their participation and verbal consent was ensured. Based on their willingness to participate in the study, they was provided the questionnaire and oriented how to fill the questions. After they have completed filling the questionnaire they returned to the data collectors.

2.9. Data Quality Control
A pre-test was conducted before the actual data collection time to ensure the validity of the questionnaire. Data collectors were given brief orientation on the study and its objectives. Data collectors was supervised and data was checked for completeness.

2.10. Data Analysis Procedure
All the questionnaires were checked and processed using manual sheet and scientific calculator then finally summarized and presented in tables, texts and graphs.

2.11. Operational Definitions
Awareness: those respondents ever heard about ECs.

Preparatory student: a student who completed their high school education at grade 10 and has joined grade 11 and 12.

Emergency contraceptive*:* is a form of oral contraception method that can be used immediately or in the first few days after sexual intercourse but before pregnancy is established. It is intended for emergency situations such as unprotected intercourse, contraceptive failure or rape.

Knowledge: refers to knowing the existence of EC, mode of action, how and when to use EC and their effectiveness

Attitude: refers the study subjects opinion, outlook and intentions towards Emergency contraceptive methods.

Practice: is the utilization skill or ever use of EC when the study subjects are exposed to unprotected sexual intercourse to prevent an intended pregnancy.

2.12. Ethical Consideration

Ethical clearance was obtained from the Ethical Review Board of Wollega University, School of Nursing and Midwifery. Then officials at different levels in the study area were communicated through letters from Wollega University, School of Nursing and Midwifery. Letters of permission will be presented to Shambu Preparatory School. All respondents were informed about the purpose of the study, importance of their participation and verbal consent was ensured. Confidentiality of the information was assured and privacy was maintained, by not writing their names.

2.13. Limitation of the study

Self-reported information is subjected to reporting errors, missed values & biases. Since the study touches sensitive issues (abortion) the possibility of underestimation cannot be excluded.

3. RESULTS

3.1 SOCIO - Demographic Characteristics of Respondents

Response was obtained from 301 female students making the response rate 100%. Almost all of the respondents 279 (92.69%) were within age group of 15-19 years. and ranged from 15 to 30 years with a mean age of 17.40 ±1.53

Majority of the study subjects 264(87.70%) were from Oromo ethnic group. And 245 (81.40) had urban background. The majority 264(96.34%) was single. Most 138 (45.85%) were protestant. The distribution of the study subjects on the bases of their grade showed that, 152 (50.50%) of the respondents were grade 11 students, and 149(49.50%) are grade 12 and 185(61.46%) were natural science students. (Table 1).

Table 1: Socio - Demographic Characteristics among Female Students In Shambu Preparatory School Horro Guduru Wollega, Oromia Region, Ethiopia Feb, 2018 (301).

Characteristics Age (year)	Number	Percent
15-19	279	92.70
20-24	20	6.64
25 -30	2	0.66
Place of origin		
Urban	245	81.40
Rular	56	18.60
Religion		
Protestant	145	48.17
Orthodox	89	29.57
Muslim	28	9.30
Catholic	10	3.32
Adventist	9	3.00
Wakefeta	1	0.33
others	19	6.31
Ethnicity		
Oromo	264	87.71
Gurage	15	4.98
Amara	22	7.31
Marital status		
Single	290	96.34
Married	9	3.00
Divorced	2	0.66
Stream		
Natural	185	61.46
social	116	38.54
Grade		
Grade 11	152	50.50
Grade 12	149	49.50

3.2. KAP of the students towards use of EC

3.2.1 Knowledge of EC

Of the total respondents 185 (61.46%) were found to be aware of the existence of contraceptive and about 182 (60.46%) of the whole respondents ever heard about ECs (Table 2).

Table 2: Percentage Distributions Of Female Students By EC Awareness In Shambu Preparatory School Horro Guduru Wollega, Oromia Region, Ethiopia Feb, 2018(301).

Variable	Number	Present
Ever heard about Contraceptives		
Yes	185	61.46
No	116	38.54
Ever heard about ECs		
Yes	182	60.46
No	119	39.54

The main sources of information about emergency contraceptive friend 82 (45.05%), followed by mass media 34 (18.68%).

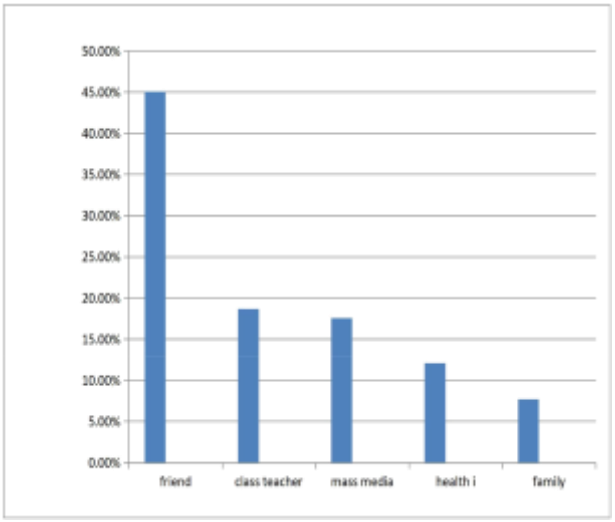

Figure 1: Main sources of information on emergency contraceptive among female college students of Shambu Preparatory School of Oromia, at Shambu town Oromia Region, Ethiopia MAY, 2018.

Of those respondents who were aware of emergency contraceptives, 127 (42.19%) correctly identified the recommended time limit to be taken, i.e. ECPs within 72 hours after un protected sex.87(47.80%) correctly knew the effectiveness of ECPs in preventing an un wanted pregnancy, and 101 (33.55%) know the recommended time between the doses of ECPs. (Table 3).

Table 3: Knowledge towards EC use among female students in Shambu Preparatory School February 23 – March 23, 2018 (N=301).

Knowledge assessment questions (N=301)	Frequency	Percent
Recommended time to take Combined ECPs		
within 72 hrs after unprotected intercourse	125	68.68
within 24 hrs after unprotected intercourse	1	0.55
Within 4-6 days after sex	2	1.10
I do not know the time	54	29.67
Effectiveness of ECPs in preventing pregnancy		
Highly effective (>95%)	87	47.80
Effective (75-89%)	32	17.58
Less effective (<10%)	8	4.40
I don't know	55	30.22
Recommended time between the doses of ECPs		
12hr apart	101	55.49
24hr apart	3	1.65
i don't know	78	42.86

To assess the level of actual knowledge of EC, a series of six knowledge questions were asked to those who had ever heard of EC. To generate the summarized level of knowledge, the response on each question was first scored, tallied and then the total of each respondent score ranged from 0 – 6 (0% -100%). Accumulated/total score was calculated and then respondents were classified as; poor, fair, and good with respect to their level of EC knowledge. Hence, respondents whos cored zero were considered as "not having the knowledge", those who scored 12.5% -50% as "Fair knowledge", and who score more than 50% as "Good knowledge" based on this,

176(58.47%) respondents have good knowledgeable, 6(2.0%) have fair knowledge and119 (39.53%) not knowledgeable.

3.2.2. Emergency Contraceptive Attitude

Three positive and three negative items were included to maintain the balance of responses. The six items were answered as either yes or no.

For positively worded statements, those who selected "yes" were regarded as having positive attitude and those who chose "no" were considered as having negative attitude. Conversely, for negatively worded statements, those who selected 'yes" were clustered as having negative outlook whereas those who said 'no" were categorized as having positive attitude. The responses on each attitudinal items was scored, tallied, and then the total of each respondent score was made to range between 0-6(0-100%). A scoreof 50% and above was considered as "positive attitude" whereas those scored below50% of the total were thought of as having "negative attitude". Based on this majority of the students (60.46%) had negative attitudes towards ECs.

About 188(62.45%) believe that emergency contraception has serious side effect and 152(50.50%) respondents believe that emergency contraceptive encourage irresponsible behavior.

Table 4: Percentage distributions of female students by ECs attitude in Shambu Preparatory School Horro Guduru Wollega, Oromia Region, Ethiopia Feb, 2018(301).

Indicators of Attitude	Frequency	Percent
believe EC can prevent unwanted pregnancy		
yes	211	70.10
no	90	29.90
Think EC is an ideal method when no contraception is used		
yes	180	59.80
no	121	40.20
believe emergency contraception has serious side effect		
yes	188	62.46
no	113	37.54
believe EC encourage irresponsible behavior		
yes	152	50.50
no	149	49.50
Is EC promotes the spread of STDs including HIV		
yes	147	48.84
no	154	51.16
Is EC is appropriate for discussion Among female students.		
Yes	174	57.80
No	127	42.20

3.2.3. Emergency Contraceptive Practices

As shown in Table 5, from the respondents only 69(25.9%) have used EC. Majority 61(88.40%) of those who had used EC responded the correct time EC they have used. those respondents who used emergency contraceptives, about 29 (42.03%) respondents are used once and about 46(50.55%) were told to use by their Male friends/partner. Majority of the respondents 62(20.39%) due to lack of knowledge about Emergency contraceptives didn't used the method

Table 5: Emergency Contraceptive practicesin Shambu Preparatory School Horro Guduru Wollega, Oromia Region, Ethiopia Feb, 2018.

Characteristics ever have	Number	Percent
Unwanted pregnancy(301)		
Yes	16	5.32
No	285	94.68
Ever used ECs(301)		
Yes	69	22.92
No	232	77.08
Time EC were used (69)		
Correct	61	88.40
incorrect	4	5.80
Do not remember	4	5.80
Frequent you have used this (69)		
one times	29	42.03
two times	15	21.74
>= three times	20	28.98
Does not remember	5	7.25
Who told you to use EC (69)		
Male friends/partner	34	49.27
Health worker	21	30.44
Friends female/peers	14	20.29
Reason for not used ECs (304)		
Sexually not active	85	27.96
Lack of Knowledge about EC	62	20.39
I don't want to use it	58	19.08

Religious reasons	53	17.44
Fear of side effect	26	8.55
Partner opposed	16	5.26
EC not accessible	4	1.32

4. DISCUSSION

The prevalence of unwanted pregnancy among the total study participants was 5.31%, which is lower than reported by other studies conducted in the country, which ranged between 3-50%.[1,5,29] The result of this study showed that more than half (60.5%) of the respondents had heard of the existence of EC. This result was lower than the study done on high school students in Scotland (98%),[20] and university students in Addis Ababa University (84.2%),[1] it was almost similar with A study conducted in Durban, South Africa among tertiary students with a total of 436 students 56.5 %,[25] and higher than the study conducted in Nepal (47%).[21]

The mach sources of information about EC were peers/friends mass media which is similar with the finding in Uganda.[26] The respondents from urban area were more likely to have heard of ECs. This could due to respondents form urban are more likely to get access to different sources of information or ECPs which gave them higher awareness relatively.

In this study 58.5% respondents had good knowledge about EC, which is lower than study conducted at Atse Yohanesse preparatory school(75.7%),[29] and higher than study conducted in Nepal (17%, 21).

In this study (39.5%) of them had a positive attitude. The positive attitude of respondents towards EC is lower than the report from Parbat, Nepal on high school students which was 96%,[20] 53% of respondents in Addis Ababa University,[7] and 62.9% of respondents in Adama University.[5] This is may be because of, lack of correct information, low promotion and availability of the methods in most health institutions as well as lack of enough mass Medias that works about reproductive health condition of the society.

The prevalence of practice of ECs among respondents in this study was found to be (22.9%) Practice of EC among participants of this study is high when compared to studies done on female high school Nepal (8.34%),[21] and In contrast, the prevalence of practice of ECs in the current study is lower than the studies conducted amongst female university students with a proportion of 73.4 % in Bahr Dar university,[10] and 75% in Addis Ababa University.[1]

The knowledge of the respondents regarding the correct time for taking ECs in this study (68.7%) is much higher when compared to other studies done in high school female students in different countries such as Scotland (26.4%),[20] in Nepal (9.58%),[21] and comparable to studies conducted at Atse Yohanesse preparatory school (67.4%).[30]

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The majority of respondents in this study heard about EC and had good knowledge but most have negative Attitude and Practices of emergency contraceptive were low.EC is the only option of preventing unwanted pregnancy after unprotected sexual Intercourse. Therefore, to increase knowledge about EC and to bring attitudinal change among female secondary school students there should be a continuous open health education on specific information about EC.

5.2. Recommendations

Based on the finding from this study, the following recommendations were forwarded.

- Strategies and programs which designed to provide appropriate information and access to EC in the country in general and in high school institutions in particular should be implemented strongly to enhance the appropriate awareness of EC among adolescents.
- Use of EC among participants of this study is far less. Hence, there should be an intervention designed to expand service availability and accessibility particularly at high school level and
- -To raise client's skills on EC materials like pamphlet, news papers, Posters etc should be available in all libraries of high school, colleges, Health institutes and other Accessible areas.
- Similar other studies are recommended to generate more in-depth information on emergency contraceptives use.

6. REFERENCES

1. Ahmed FA, Moussa MM, Karen OP, Benedict OA. Assessing Knowledge and practice of emergence contraceptive. BMC Public Health, 2012; 12: 1-9.
2. Sedgh G, Sigh S, Henshaw SK, Bankole A. Induced abortion: incidence and trends worldwide from 1995 to 2008. The lancet, 2012; 379: 625-632.
3. Tamire W, Enqueselassie F. Knowledge and practice on emergence contraceptives among Female university students in Addis Ababa, Ethiopia. Ethiopia J Health Dev, 2007; 21: 111-116.
4. Mir AS, Malik R. (2010). Emergence contraceptives pills: Exploring the knowledge and attitudes of community health workers in a developing muslim country. North Ameri J Med Sci., 8: 359-364.
5. Tilahun D, Assefa T, Belachew T. Knowledge, attitude and practice of emergence contraceptive

among Adama university female student. Ethio J Reprod Health, 2010; 20: 195-202.
6. London M, Cooper D, Jennifer S, Regina M, Chelsea M. Knowledge and use of emergence contraceptive among women in the Western Cape province of South Africa. BMC Women's Health, 2007; 7: 1-7.
7. Tajure N. Knowledge, attitude and practice of emergence contraceptive among graduating female students of jimma university Southwest Ethiopia. Ethio J Reprod Health, 2012; 20: 91-97.
8. Hassen F. Analysis of factors for unwanted pregnancy among women in the reproductive age group attending health institutes in jimma town report, 2000.
9. Guttmacher institute Advancing sexual and reproductive health worldwide, through research policy analysis and public education).
10. International Family planning perspectives, estimates of I. abortion in Mexico: what's changed between1996-2006?, December 2008; 34(4).
11. Aziken ME, Okonta PI, Ande AB. Knowledge and perception of emergency contraception among female Nigerian undergraduates; International family planning perspectives; June 2003; 29(2): 84-87.
12. Ethiopian society of obstetrics and gynecologists (ESOG), Ministry of Health (FMOH) and EC afrique, author. News letter.2.1. Addis Ababa. Available on: www.esog@ethionet.et.
13. Jha DN. Morning after pill: a medical night mare? Times of India [internet]. 2011 Jul 23 [cited 2015 Mar 2]; [about 1 screen].available form: http://articles.times of india.indiatimes.com/2011-07-23/delhi/29806984_1_morning-after-pill-emergency-pills-population council.
14. Pai A, Achargjee S. only for an emergency: quick-fix pills may seem like answer to unwanted pregnancies but frequent usage can be dangerous. India today [internet].2013 April 5[cited 2015 Mar 2]; [about 1 screen].available form: http://indiatoday. intoday.in/story/quick-fix-pills-unwanted-pregnancies-teenage-girls/1/260843. html CIA World Factbook.
15. Demographic and health survey Ethiopia (2012) central statistical agency, Ethiopia and ICF macro, 2011.
16. Ejera T, Birhan M, Amanuel A assessment of level of knowledge and utilization OF Emergency contraception female students of Hawassa university, South Ethiopia. Advances in reproductive science, 2013; 1: 51-56.
17. Gold E Emergency contraception in Ethiopia: provider and user attitude and behaviors. DKT international, 2013.
18. Gebremeskel Miruts, Dejen yeman, kidanemariam Abera Factors associated with emergen cycontraceptive use among Female Preparatory Schools Students Adwa Town, Northern Ethiopia. Across sectional studydesign, 2013.
19. Graham A, Green L, Glasier AF. Teenagers' knowledge of emergency contraception: questionnaire survey in south east Scotland. BMJ, 1996; 312: 1567-1569.
20. Gebremeskel Miruts, Dejen yeman, kidanemariam Abera Factors associated with emergen cycontraceptive use among Female Preparatory Schools Students Adwa Town, Northern Ethiopia. Across sectional study design, 2013. (IJPSR)
21. Subedis S. Knowledge, attitude and practice on emergency contraceptives among youth of parabat district. JHAS. 2:50-53. Young People's Use and Perceptions of Emergency Contraceptives in Sub-Saharan Africa: Existing Insights and Knowledge Gaps Rosalijn Both* Centre for Social Science and Global Health, Amsterdam Institute for Social Science Research Universit of Amsterdam.
22. Wondimu Bekele, Emergency contraceptive: post-secondary school female students' and service providers' perspective (the case of Awassa town), 2008; 5-14.
23. Friedman S, Mc Quaid, Grendell J. Current obstetrics & gynecology diagnosis & treatment: 9th Edition; 2003, pp 164-213
24. Burton R, Savage W. Knowledge and use of post-coital contraception: a survey among Health professionals in Tower Hamlets. Br J Gen Pract. 1990; 40(337): 326–330.
25. Josaphat B, Florence M, Elisabeth F, Kristin G. Emergency contraception and fertility awareness among University students in Kampala, Uganda. *East African Medical Journal*, 2006; 6 (4): 194-200.
26. Journal of obstetrics and Gynecology volume 24, number 4/ June, 2004; 440-447.
27. Keas bury J. Mekbib T. Belay T, Gaym A. Skibiak J. et. Al Main streaming EC in Ethiopia'public sector; project results and implication for scale up. Ethiopian journal of RH, 2009; 3(Ec in Ethiopia).
28. Getnet Zeleke1, Zelalem Zemenay, Berhanemeskel Weldegerima Knowledge, Attitude and Practice of Emergency Contraception among female Bahir Dar University Students, Northwest Ethiopia, Ethiopian Journal of Reproductive Health, Ethiopian Journal of Reproductive Health, May 2009; 61-64.
29. Solomon Abhra, Feven Zeratsion, Fantahun Molla, Tadele Eticha, Admassu Assen, Wondim Melkam. assessment of knowledge, attitude & practice of EC among regular female preparatory school students towards Emergency Contraceptives in Mekelle, Northern Ethiopia IJPRS Nov, 2014.
30. Nasir T, knowledge, attitude and practice of emergency contraception among graduating female students of Jimma University, Ethiop J Health Sci., July, 2010: 21(8).