

# Knowledge, Attitude and Utilization towards Emergency Contraceptive among Preparatory Students of Mizan High School Students, Bench-Maji Zone, South West, Ethiopia, 2016

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## Abstract

**Background:** Emergency contraceptive (EC) is a type of modern contraception which is indicated after unprotected sexual intercourse, following sexual abuse, misuse of regular contraceptive or non-use of contraception. Use of Emergency contraceptive (EC) with in a defined time period could prevent unwanted pregnancy and its damaging consequences like unintended child birth and unsafe abortion.

**Objective:** The objective of this study was to assess knowledge, attitude and practice of Emergency contraceptive utilization among preparatory students in Mizan, Bench-Maji Zone, SNNP RS, and South West Ethiopia.

**Methods:** An Institutional Based Descriptive cross-sectional study design was employed from April 23rd to May 8th 2016 in Mizan High school. The total sample size is 380 and it was determined by using a single population proportion formula. By using roaster or attendance as sample frame, proportional number of female students was selected by using simple random sampling technique (lottery method). The collected data were cleaned, and coded manually by the principal investigators before the actual data analysis started then the data was tallied, tabulated and calculated by using scientific calculator and frequency and percentage were presented by using tables, graphs and charts.

**Result:** The age of study participants ranged from 15-25. The finding of this study revealed that 266 (73.3%) of the respondents had ever heard about emergency contraceptive, 34.6% had good knowledge, 63.8% had positive attitude towards emergency contraceptive and 83 (31.7%) had utilized emergency contraceptive.

**Conclusion:** In this study Most of the respondent's level of knowledge about Emergency Contraceptives (EC) is low. But most of them have positive attitude towards Emergency Contraceptives (EC) and have high utilization of Emergency contraceptives (EC).

**Keywords:** Unsafe abortion; Pregnancy; Fertilization; Emergency contraceptive; Family planning

## Introduction

Emergency contraceptive (EC) is a method that used to prevent unwanted pregnancy that result from unintended sexual activity, sexual assault or abuse, misuse of regular contraceptive or non-use of contraception methods. Emergency contraceptive (EC) can also plays a vital role in preventing un intended pregnancy, which intern helps to reduce unintended child birth and unsafe abortion, which are major problem of maternal health. Emergency contraceptive (EC) is found to be effective if used as soon as possible after unprotected sexual intercourse, especially within 72 hours of unprotected sexual intercourse [1]. Emergency contraceptives can be divided into two, which include emergency contraceptive pills or hormonal that contains Combined Oral Contraceptive pills (COCs) and Progestin Only Pills (POPs) and Intrauterine Devices (IUDs). IUDs can be effective if it is inserted within 5 days of unprotected sexual intercourse. EC is said to

be safe with minor side effects like nausea and vomiting in case of pills and infection for IUDs if not used properly. Effectiveness of EC said to be 75% in case of COCs and 85% in case of POPs. Regarding the mechanism of action, Emergency contraceptive (EC) works by preventing fertilization, implantation and tubal transportation of sperm and ovum [2]. By the end of 1990s, Emergency contraceptive (EC) was widely recognized as a safe and effective method for all women at a risk of unwanted pregnancy. However, Emergency contraceptive (EC) is not effective as other contraceptives for regular use and does not protect against sexual transmitted infections. Women should understand that an on-going correct use of other contraceptive method provide more protection from pregnancy. All women can use Emergency Contraceptive (EC) including women who have contraindication for oral contraceptives, as there are no absolute contraindications for its use [3]. The need for Emergency contraceptive (EC) is clearly demonstrated by the occurrence of high magnitude of unwanted pregnancy and 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 [4]. Emergency contraceptive (EC) involves methods of contraception used for preventing a pregnancy after unplanned or unprotected sexual intercourse. The concept appears appropriate for adolescents and students in higher institution or those in vocational training who engage in sporadic and occasional sexual intercourse. The potential of Emergency contraceptive (EC) to prevent unwanted pregnancy and its utilization in developed countries has been well documented. However, majority of developing countries including Ethiopia the potential client service providers and service status is not well documented [5].

The level of utilization of Emergency Contraceptive (EC) is very low in every region of the world including Ethiopia; as result of these the health consequences related to unintended pregnancy and its complications are devastating the life of the women. Beside this long-term disability like infertility and death there may be a direct result of unsafe abortion complications such as sepsis, haemorrhage, genital and abdominal trauma and perforated uterus [6]. The proportion of women aged 15-19 years in Africa who have had an unsafe abortion is higher than in any other region; almost 60% of unsafe abortions in Africa are among women aged less than 25 years and almost 80% are among women below age 30 [7]. Each day 192 women die because of complications arising from unsafe abortion; that means one woman every eight minutes, nearly all of them are in developing countries. These women are likely to have had little or no money to procure safe services; many of them are young, perhaps in their teens, living in rural areas and having little social support to deal with their unplanned pregnancy. Some of them have been raped, and some have experienced an accidental pregnancy due to the failure of the contraceptive method they were using or the incorrect or inconsistent way they used it. Some of them lacked knowledge about the methods used to prevent unintended pregnancy or did not have the means to obtain them. Some may have found contraceptive services hard to reach, while others may have been turned away by insensitive providers. A large percentage of them may have first attempted to self-induce the abortion and failing that, they may have turned to an unskilled, but relatively inexpensive and affordable provider [8-10]. Unwanted pregnancy is a big problem in Ethiopia; 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. About half of unwanted pregnancies occurred due to inadequate guidance to use contraception effectively, including the user in ability to address their feeling, poor attitude towards contraceptive and lack of motivation [11]. Despite the fact that different contraceptive exist worldwide, emergency contraception's are the only one that can be used after sexual intercourse offering chance to prevent unwanted pregnancy but the problem of unintended pregnancies still exist, which could be due to gap in awareness,

negative attitude towards emergency contraceptives, low accessibility of emergency contraceptives or as a result of sexual assault [12]. Therefore, this study was aimed to assess the Level of knowledge, attitude and utilization of emergency contraceptive among preparatory students of Mizan High School Mizan-Aman town, Bench-Maji zone, SNNPRS, South west Ethiopia, so that the result from this study will provide important information and will give an insight concerning female level of knowledge, attitude and utilization towards emergency contraceptive to governmental organizations, local as well as International Non-Governmental Organization (NGOs), policy makers and researchers. So that this study was conducted from April 23rd to May 8th 2016 on preparatory class students of Mizan High school, Bench-Maji Zone, South Nations nationalities and peoples Regional State South West Ethiopia.

## Methodology

### Study design

Institutional based cross-sectional study was conducted.

### Source population

All female students of Mizan preparatory school.

### Study population

Randomly selected regular female students.

### Inclusion criteria

All female regular students of Mizan preparatory school.

### Exclusion criteria

Those students who were not present during data collection.

### Sample size determination

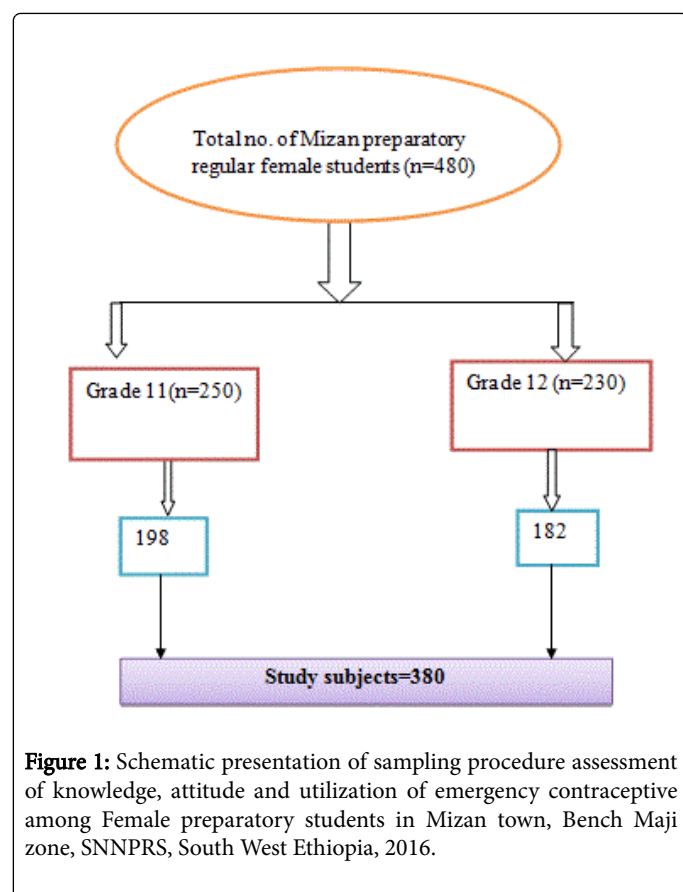
The study employed a single population proportion sample size determination formula to calculate the sample size. The proportion (P) that obtained from the result of KAP of emergency contraceptive utilization among preparatory students in Oromia regional state, Arsi zone, Asella town, south east Ethiopia were 27.4% had good knowledge, 65.8% had positive attitude and 2.4% had used emergency contraceptive methods [11]. With this 95% CI, and 5% marginal error (where n is desired sample size, z is value of standard normal variable at 95% CI which is 1.96 and d is a marginal error which is 5%) (Table 1).

Variable	Proportion(P)	Calculated sample size	10% Non-response rate	Decision
Knowledge	Good Knowledge-27.4%	306	337	Rejected
Attitude	Positive attitude-65.8%	345.79~346	380	Accepted
Utilization	Used-2.4%	305.5~306	337	Rejected

**Table 1:** Showing Sample size calculation assessment of knowledge, attitude and utilization of emergency contraceptive among female preparatory students in Mizan town, Bench\_Maji zone, SNNPRS, South West Ethiopia, 2016.

## Sampling technique

By using their rosters or attendance as a sampling frame, proportional number of female students were selected using simple random sampling; lottery method. In order to determine and take proportionate number of study subject, sampling fraction was first calculated which is  $380/480=0.79$ . Then each selected classroom numbers of female students were multiplied by sampling fraction to make proportional allocation (Figure 1).



**Figure 1:** Schematic presentation of sampling procedure assessment of knowledge, attitude and utilization of emergency contraceptive among Female preparatory students in Mizan town, Bench Maji zone, SNNPRS, South West Ethiopia, 2016.

## Data collection tools and procedure

To address the objective of the study the data was collected by using semi-structured interviewer administered data collection tool/questioner which was adopted from different literatures. The questioner was prepared by English and translated to Amharic by the professional and back translated to English. The questioner was pretested outside of the study area in Tepi town high school to check for its consistency and easy understanding by the data collectors.

The data collectors were 6 BSc health professionals and the collected data was checked for its completeness and provision of its full

information and beside this supervision was done by the supervisors who were Masters in Public Health. After Proportional allocation of the sample size to each class the randomly selected participants were informed by the data collector as she is selected to participate in the study. After the selected participant is interested, then the consent was obtained and the data was collected.

## Data processing and analysis

The raw data was checked and arranged manually by the principal investigators before the actual data analysis started. The data was tallied, tabulated, calculated by using scientific calculator and presented by frequency distribution, different charts and narrative form.

## Data quality control

The questionnaire was pre-tested and carried out on 5% of the total sample size in Aman high school by using validate questionnaire. Structured questionnaire was adopted from prior researchers done in other places and then modified according to the context of this study. Since, the instrument was developed and modify in the area context after reviewing similar literatures and necessarily adjustments was made before using the questionnaire for the actual data collection.

## Dissemination of results

Results of our study were presented to the College of Health Science, Department of Nursing and other concerned bodies. Photocopy of the research was given to the Mizan preparatory school, Bench Maji zone, Mizan town. Every effort will be done to publish the research findings to make it accessible for all who are interested on the area.

## Results

### Socio-demographic characteristics of respondents

Out of 380 planned study subjects for the study, about 363 students correctly filled the questionnaire and the rest were excluded due to incompleteness and refusal to participate yielding a response rate of 95.5%. The age of the study participants ranged from 15-25 years and 198 (54.5%) of respondents were between the age group of 15-19. One hundred ninety three (53.2%) of the respondents were from grade eleventh. Concerning the marital status, 302 (83.2%) was single.

Most of the respondents 272 (58.4%) came from urban area. The vast majority of the respondents 356 (98.1%) were Amhara. About 183 (50.4%) of the respondents living with mother and father. Concerning father educational levels of the respondents 113 (31.1%) can read and write, also 110 (30.3%) of respondents mother educational levels were able to read and write (Table 2).

Variables		Frequency	Percentage
Age	15-19 years	198	54.5
	20-24 years	164	45.2
	>25 years	1	0.3

Religion	Orthodox	142	39.1
	Muslim	182	50.1
	Protestant	39	10.7
class of study	Grade 11	193	53.2
	Grade 12	170	46.8
Marital status	Singe	302	83.2
	Married	59	16.3
	Divorced	2	0.5
Place of origin	Urban	212	58.4
	Rural	151	41.6
With whom are you living now	Mother and father	183	50.4
	With friends	66	18.2
	Alone	94	25.9
	Others	20	5.5
Father educational level	Illiterate	61	16.8
	Read and write	113	31.1
	Grade 1-6	57	15.7
	Grade 7-12	62	17.1
	Diploma	40	11
	First degree and above	30	8.3
Mother educational level	Illiterate	75	20.7
	Read and write	110	30.3
	Grade 1-6	85	23.4
	Grade 7-12	46	12.7
	Diploma	36	9.9
	First degree and above	11	3

**Table 2:** Showing Socio-demographic characteristics of the respondents in Mizan preparatory school, Mizan town, Bench-Maji zone, SNNPRS, South west Ethiopia, 2016.

### Sexual experience of the respondents'

From total of 363 of respondents, the majority of them 225 (62%) respondents having sexual experience, about 110 (79.71%) of have not ever practice sexual intercourse. Among 138 of those respondents had one sexual partner (Table 3).

Variables		Frequency	Percentage (%)
practice sexual intercourse	Yes	138	38
	No	225	62
At what age you practice	15-19	108	78.2
	20-24	30	21.8

Number of sexual partner	One	110	79.7
	Two	25	18.1
Do you have history of pregnancy	Yes	37	26.8
	No	101	73.18
Pregnancy planned(n=37)	Yes	14	37.8
	No	23	62.16
Outcome of pregnancy	Has been delivered	13	35.1
	Safe abortion	10	27
	Un safe abortion	14	37.84

**Table 3:** Sexual experience of respondents of Female preparatory school students of Mizan High School Mizan town, Bench-Maji zone, SNNPRS, South west Ethiopia, 2016.

### Abortion history of respondents

Among 138 of those respondents having sexual experience, about 24 (64.86%) of respondents ever had abortion (Table 4).

Variables		Frequency	Percentage (%)
Have you ever had abortion?	Yes	24	64.86
	No	13	35.14
Kind of abortion Received?	safe abortion	5	8.36
	unsafe abortion	19	79.2
Reason for abortion?	Single	12	50
	Still in school	9	37.5
	Employment need	3	12.5
Who support for abortion?	Mother	7	29.16
	Father	4	16.66
	Sister	3	12.5
	Boy friend	5	20.83
	Husband	4	16.6
	No body	1	4.17

**Table 4:** Showing Abortion history of respondents of Female preparatory school students of Mizan High School Mizan town, Bench-Maji zone, SNNPRS, South west Ethiopia, 2016.

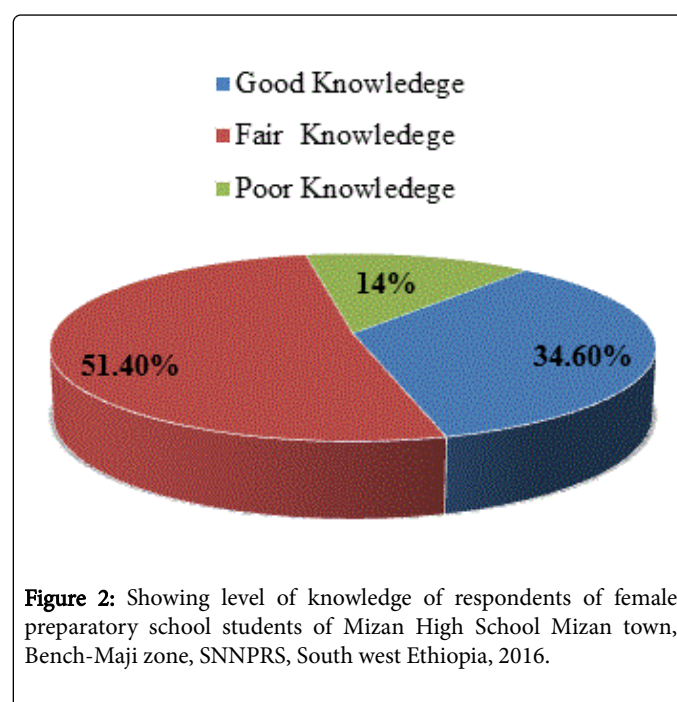
The research was approved by the nursing department and our advisor. Furthermore, letter of permission was obtained from Department of Nursing.

Verbal consents was also obtain from the study subjects after explaining the study objectives and procedures and their right to refuse not to participate in the study any time they want was assured.

### Respondents' Knowledge about Emergency Contraceptives (EC)

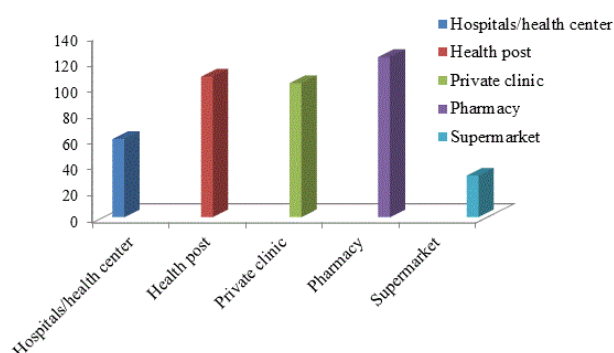
Out of 363 participants, 266 (73.3%) of the respondents have heard about emergency contraceptive methods. Out of 266 respondents 209 (78.6%) know about EC, 125 (34.4%) of respondents were know IUCD. Most of the participants 139 (66.5%) were know why emergency contraceptive was taken.

The overall summary index for knowledge of respondents about EC disclosed that, out of the 266 respondents who had heard about emergency contraceptive, only 34.6% had good knowledge and 14% had poor knowledge about the method (Figures 2-5 and Table 5).

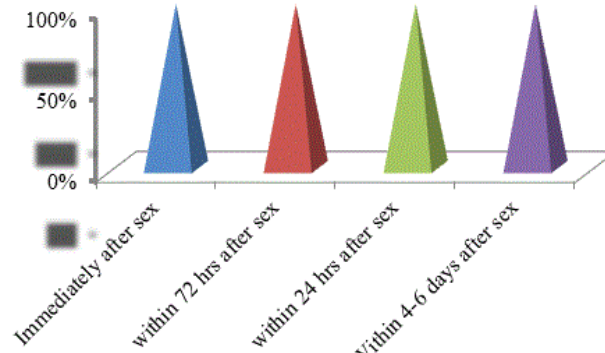


**Figure 2:** Showing level of knowledge of respondents of female preparatory school students of Mizan High School Mizan town, Bench-Maji zone, SNNPRS, South west Ethiopia, 2016.



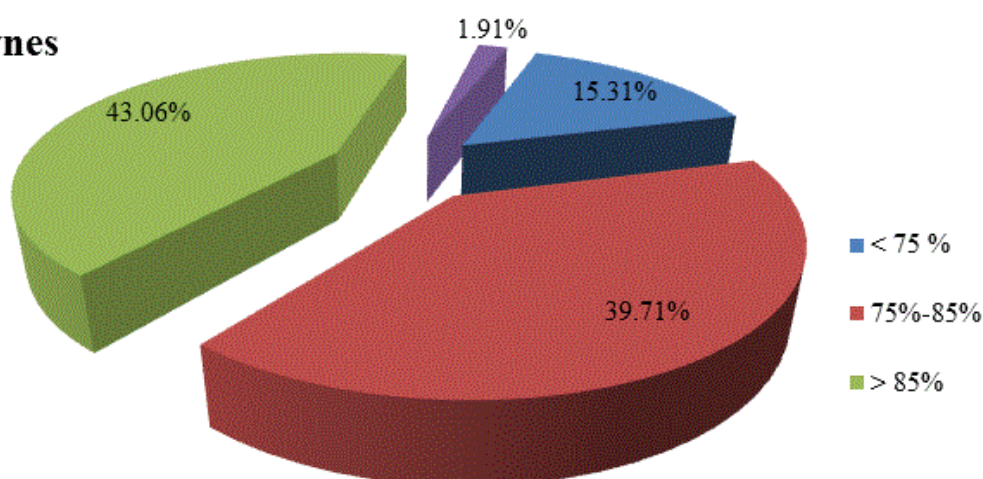


**Figure 3:** Showing respondents response to the question regarding where to get the emergency contraceptive.



**Figure 4:** Showing respondents response to the question regarding when to take the first dose of emergency contraceptive.

### Effectivnes



**Figure 5:** Showing respondents response how much effective is emergency contraceptive.

Variables		Frequency	Percentage (%)
Have you ever heard about EC (n=363)	Yes	266	73.3
	No	97	26.7
Do you know EC (n=266)	Yes	209	78.6
	No	57	21.4
Which one of EC do you know (n=209)	COC	105	28.9
	POP	89	24.5
	IUCD	125	34.4
	Post pills	92	25.3
	Others	4	1.1

Do you know why EC is taken (n=209)	Yes	139	66.5
	No	70	33.5
What is the use of EC (n=139)	To limit family size	128	92.08
	To prevent pregnancy	77	55.39
	To prevent STD	67	48.2
	To prevent HIV	27	19.42
	No use	11	7.9

**Table 5:** Showing Knowledge about EC concerning heard, knowing and use among respondents' of Female preparatory school students of Mizan High School Mizan town, Bench-Maji zone, SNNPRS, South west Ethiopia, 2016.

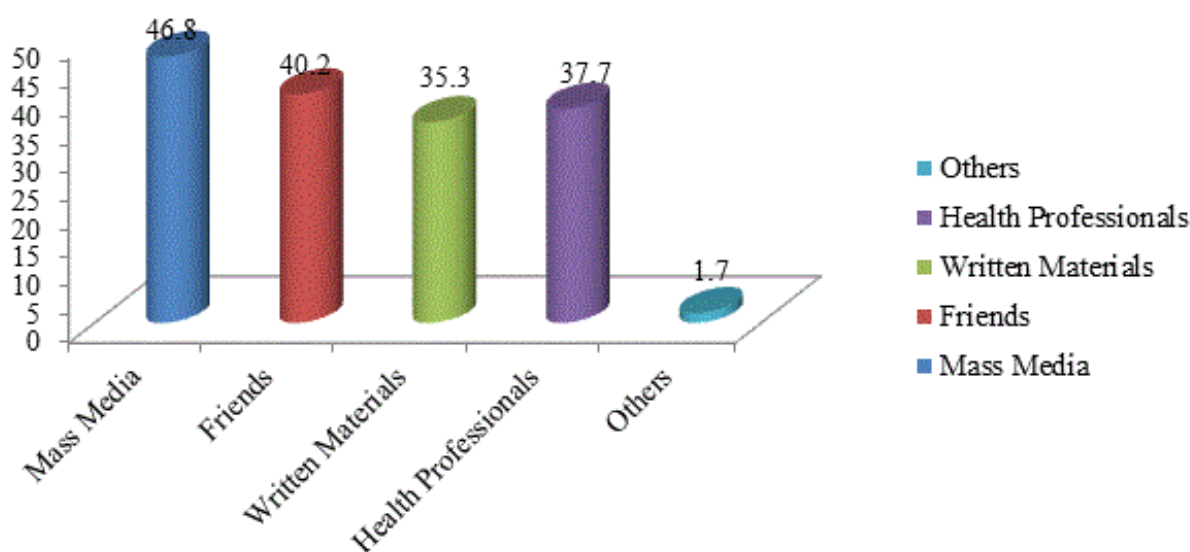
### Source of information about emergency contraceptives

The source of information for the majority 170 (46.8%) of respondents about emergency contraceptive were mass media (Figure 6).

### Respondents' attitude toward emergency contraceptives

In this study the student's attitude towards emergency contraceptives was also assessed. Accordingly, 64.9% of them had a positive attitude.

On the other hand, 35.1% of respondents had negative attitude towards emergency contraceptives.



**Figure 6:** Showing respondents' source of information about emergency contraceptives among female students in Mizan preparatory school, Mizan town, SNNPR, South west Ethiopia, 2016.

### Respondents' level of utilization of emergency contraceptives

Concerning the usage of ECs in case of method need and sexually experienced respondents were asked whether they ever used EC or not.

Out of 138 who practice sexual intercourse 83 (60.1%) of the respondents were well practice regarding use of emergency contraceptives. Most of the respondents were used 68 (81.92%) oral pills.

Out of 83 respondents 30 (36.15%) were used emergency contraceptives once. Miscalculation in using calendar methods 52 (62.65%), were the reasons for using emergency contraceptives raised by ever user respond (Table 6).

Variables		Frequency	Percentage (%)
Have you ever used EC (n=138)	Yes	83	60.1
	No	55	39.9
EC you used (n=83)	Oral ECPs	68	81.92
	IUCDs	9	10.84
	Both	5	6.02
	Others	1	1.2
How many times	Once	30	36.15
	Twice	14	16.87
	Three times	13	15.66
	I don't remember	25	30.12
	Others	1	1.2
Who recommend it	A friend	56	67.47
	Health professionals	23	27.71
	Don't remember	4	4.81
Who did provide it to you	Doctors	10	12.04
	Community health worker	16	19.27
	Midwives	15	18.07
	Pharmacist	42	50.6
Why did you use it	The timing miscalculated	52	62.65
	Incorrect of Condom	21	25.3
	missed use of pills	5	6.02
	Because of forced sex	5	6.02
challenge you faced	Partner opposition	19	22.89
	Religious reason	20	24.09
	Fear of stigma	16	19.28
	Lack of knowledge	28	33.73

**Table 6:** Showing level of utilization of emergency contraceptives among female students of Mizan preparatory school, Mizan town, Bench-Maji zone, SNNPRS, South west Ethiopia, 2016.

## Discussion

This study reported that 73.3% had heard about emergency contraceptives, which is higher than the study conducted in Debramarkos and Arbaminch town secondary school where 23% and 47% of the respondents had heard about Emergency Contraceptives respectively [13-16]. The reason for the gap might be due to high coverage of mass media. In this study the major source of information regarding emergency contraceptives was mass media (46.8%) [13]. In this study out of 266 who had heard about emergency contraceptives, 58.4% of respondents were urban residents and 41.6% were from rural residents. It is likely that female students with rural background know little about such rarely available. Study conducted in Addis Ababa

preparatory school found out that, knowledge of emergency contraceptives was affected by previous place of residence. As expected, respondents with rural background are less likely to know emergency contraceptives compared to those having urban background. In a situation where use of any modern family planning is less than 10% in most areas of the rural Ethiopia [16].

Generally, from 266 of respondents who heard about emergency contraceptives only 34.6% had good knowledge and 14% had poor knowledge about the method. The remaining 114 (31.4%) had no knowledge about emergency contraceptives. In this study the student's attitude towards contraceptives was also assessed. Accordingly, 64.9% of them had a positive attitude. The positive attitude of respondents



towards emergency contraceptives is higher than the report from Arbaminch high school students which was 50.1%. On the other hand, 35.1% of respondents had negative attitude towards emergency contraceptives [17]. Regarding emergency contraceptives utilization, out of 138 those who are sexually active, only 60.1% were used emergency contraceptives compared with study conducted in Addis Ababa preparatory school which revealed that only 4.9% had used emergency contraceptives methods [18].

In this study, out of 138 respondents who had history of sexual practice complains that the main challenge they faced with regard to utilization of emergency contraceptives was lack of knowledge (33.73%), religion reason were (24.9%) but according to research conducted on KAP of emergency contraceptives in Debre markos preparatory school found out that the main challenge faced by participants was fear of stigma were 23.3% mentioned [19]. The study conducted on female students in three preparatory schools in Dessie, Ethiopia reported that out of 246 students, who had heard about emergency contraceptives, only 15.4% of the respondents made use of emergency contraceptives because of miscalculation of their safe sexual time which is lower than this study when 62.65% of them used for the same reason [20].

## Conclusion

The result indicates that majority of the respondents had heard about emergency contraceptives. Most of the respondents had positive attitude towards emergency contraceptives. This finding reveals that there is low awareness on type of emergency contraceptives used, area from which they obtain and effectiveness of EC use among Mizan preparatory school. Generally, this study has indicated that the usage of emergency contraceptives is high.

## Acknowledgment

We would like to express our great appreciation to our staffs for their advices, guidance and technical support. Again we would like to extend our thanks to Mizan-Tepi University College of health science, Department of Nursing for giving this chance to prepare the research. We are also grateful to the Mizan preparatory teachers and administrative body for their cooperation during data collection. Lastly but not least, our sincere thanks also goes to those study participants, had it been without the study participants, the study would have not been preceded a step forward.

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