

# Factors associated with emergency contraceptive use among Female Preparatory Schools Students Adwa Town, Northern Ethiopia. Across sectional study design, 2013.

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## ABSTRACT

### Background:

Emergency contraceptives have become almost available in many developing countries. However, poor user awareness and access have hindered adolescents in learning and using Emergency contraceptive. Wider use of Emergency contraceptive could prevent a substantial proportion of the millions of unplanned pregnancies that occur every year. Hence, this study will relevant to explore the utilization and associated factors of emergency contraception by female students at preparatory schools, Adwa Town, Tigray region, Northern Ethiopia.

**Methods:** Using School based cross-sectional study and self-administered structured questionnaire data was collected from 335 systematically selected female students of preparatory schools. After coding and cleaning, data was entered and analyzed by SPSS window version 20. Descriptive statistics was used to see the frequency and percentage of each variable. Bivarite analysis was done to see the association between the dependent and independent variables. Finally multivariate logistic regression was used identify predictor variables.

**Results:** A total of 335 students participate on the study; the majority (90.1%) being in the age group of 17-19, and 314 (93.7%) were single. Of the total 216(64.48%) heard about emergency contraceptives but Only 37(11.04%) have history of emergency contraception use. Out of total 57 (17.02%) students were sexually active, among this 48 (84.21%) had history of unintended pregnancy and 25(52.08%) of pregnancies were terminated by induced abortion. Previous use of regular contraceptives (AOR: 0.033 95% CI (0.004-0.281) was significant predictor not to use of emergency contraception.

**Conclusion:** Knowledge of emergency contraceptive is crucial in preventing unwanted pregnancy but this study revealed that the knowledge and use of emergency contraceptive is very low. Therefore IEC on emergency contraceptive should be initiated at school level to improve knowledge and use of Adolescents on emergency contraceptive.

**Keywords:** Emergency contraception, Tigray Ethiopia

## Introduction

Emergency contraception (EC) is type of contraception that is used as an emergency procedure to prevent unwanted pregnancy following an unprotected act of sexual intercourse. (1)

Emergency contraceptives have become almost available in many developing countries. However, limited provider knowledge and negative attitudes as well as poor user awareness and access, have hindered adolescents in learning and using Emergency contraceptive. As result many students are subjected to have sex sporadically (3).

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 (6,7)

In Ethiopia according to the survey conducted by Ethiopian Society of Obstetricians and Gynecologists in nine administrative regions, 25.6 percent of 1075 abortion cases were induced abortions. Among them, 58 percent of the cases were in the age range 20-29 years. Adolescent women face a high risk of unintended pregnancies and unsafe abortion, with devastating consequences for their lives and health (10, 11).

A study conducted among university students in Cameroon indicated that general awareness of Emergency contraceptive was 63%, however the knowledge for the first dose of Emergency contraceptive pills was very

limited. Only 5.7% knew that the 1<sup>st</sup> dose Emergency contraceptive pills could be taken up to 72 hrs. Only 7.4% of respondents reported that had previously used Emergency contraceptive pills (18).

A study done in Nigerian undergraduate students 43% and 34% of all female respondents were Sexually active and ever had an induced abortion respectively. 39% of respondents had ever practiced contraception (58%) of respondent had heard of emergency contraceptive but only 18% of them correctly identified 72 hrs as the time limit for the method use. (19).

A cross sectional study done in Uganda indicated from the total 379 study participant 33% of students thought that Emergency contraceptive interrupts an on going pregnancy, 158 (42%) had sexual relationship at the time of the study, 55 (14.5%) of students had ever used contraceptives mostly condoms 48.9% and coitus withdrawal 23.4%, and 13(3.4%) had ever been pregnant. 99 (69.3%) of those had been pregnant had abortions. 45 % of the respondents had ever heard about emergency contraception (20).

A study conducted among college female students in Oromia Regional state, Arsi Zone, Asella town shows 63 % of the students had an intention to use Emergency contraceptive in the future and 2.4% had ever used emergency contraceptive method. Students of age 20 and above years were more likely to have knowledge, among respondents who ever used modern contraceptive (22)

### **Objective**

To assess emergency contraceptive utilization and associated factors among female students in ADWA preparatory schools, Tigray region, Northern Ethiopia.

### **Specific objective**

- To describe magnitude of emergency contraceptive uses among female preparatory school students in Adwa.
- To identify factors associated with emergency contraceptive among female students in Adwa preparatory schools.

### **Study area**

The study was conducted at two preparatory schools central zone of Tigray Adwa, 1000 kms far from Addis Ababa. The town has total population of 62,986 according the district administration document. In the district has 1 hospital, 2 health centers, one governmental college, 2 preparatory schools (served for 3015 students, 1500 of them are females), 3 secondary schools, . Study was conducted from July to June 2013.

### **Source population**

The source population was all female students in both preparatory school of Adwa town The Study population was Female preparatory students selected from the source population with systematic random sampling procedure from the students.

### **Sampling procedure:**

First the total sample size was distributed to each sections of grade 11 and 12 of the two schools proportionally. Then based on the registration of the class the study unit was selected using systematic random sampling technique.

### **Data collection procedure**

Self administered structured questionnaire which contain socio- demographic characteristics, awareness of Emergency contraceptive and regular contraception, attitude toward Emergency contraceptive, utilization of Emergency contraceptive and regular contraception and sexual history of the students was prepared to collect primary data.

Questionnaire was pre tested in 5% female preparatory students of the same grade in Axum having the same socio-demographic character before the actual data collection Data collectors and supervisors were appropriately trained for one day.

### **Data processing and analysis**

After coding and cleaning, data will be entered and analyzed by SPSS window version 16. The analysis part was consisted of descriptive statistics using tables and graphs to describe the study population. And P. value less than 0.05 and 95% confidence interval was used to show the association between the dependent and independent variables, the gross effect of each predictor variables on the dependent variable was tested by crude odds ratio. Multivariate logistic regression analysis was used to test the net effect of the model fitted predictor variables.

### **Ethical consideration**

Ethical approval of the research proposal was obtained from the ethical review committee of Mekelle University, College of Health Science, and Department of Public Health. The letter directed to the preparatory schools to cooperate and to provide the necessary information. Clear communication was conducted with

education office and department heads and programs was arranged to conduct the study. In addition after brief explanation of the purpose of study, written consent was obtained from the study participants and those voluntary to participate was provided the questionnaire to fill. The confidentiality was assured by excluding their names and not to participate or withdraw at any point from the study was respected.

## Result

### Socio-demographic characteristics

Response was obtained from 335 female students making the response rate 100%. Almost all 302 (90.1%) of respondents were within the age group of 17-19 years with mean age of 17.98 years. The majority 314(93.7%) was single. Most 307(91.6%) were Orthodox Christians, 188 (56.1%) of the respondents were from rural areas and 138(41.2%) of the respondents were lived with parent (Table. 1).

Table 1: Socio-demographic characteristic of female students of preparatory Schools in Adwa town, Feb. 2013, Tigray, Ethiopia (n=335).

Characteristics	Frequency	Percentage
Age		
14-16	10	3.0
17-19	302	90.1
20 and above	23	6.9
Marital status		
Single	314	93.7
Married	21	6.3
Residence		
Urban	147	43.9
Rural	188	56.1
Religion		
Orthodox	307	91.6
Others	28	8.4
Education level		
Grade 11	191	57.0
Grade 12	144	43.0
Total	335	100
With whom do you live		
With parent	138	41.2
With peers	79	23.6
Alone rent house	118	35.2

### Sexual experience and knowledge on emergency contraceptive

About 57 (17.02%) were found to be sexually active, 48 (84.21%) students have history of previous pregnancy out of this 25(52.08) of them were terminated early. Of the total respondents 216(64.48%) were found to be aware of the existence of Emergency contraceptive. The most cited sources of information were schoolteachers and followed by health professionals, 99(45.83%) of respondents who had heard of emergency contraceptives correctly mentioned that emergency contraceptive is available in the form of pill 34(15.74) and IUCD. Few respondents 58 (17.3%) know correct timing.

### Bivariate analysis

Analysis of determinants of utilization of emergency contraceptives of Female Students who ever used regular contraceptives were less likely use Emergency contraceptive as compared to those who never used contraceptives. COR=0.003, 95% CI (0.001, 0.015) and who Ever practiced abortion were less likely use emergency contraceptives as compared to those who not practiced abortion COR= 0.041, 95% CI (0.016,0103).

### Multivariate analysis

Multivariable logistic regression indicate that student who had experience of regular contraceptive use were 97% less likely to use EC (AOR: 0.033 95% CI (0.004- 0.281) than those not have history

Table 7. Logistic Regression analysis predictors of emergency contraceptive use among female students of preparatory Schools in Adwa town, Feb. 2013, Tigray, Ethiopia (n=335)

Variables	Variable values	OR (95% C.I)			
		Crude	p.value	Adjusted	p.valu e
Grade of student	Grade 12	1.0			
	Grade 11	1.03 (0.517, 2.052)			
Religion	Orthodox	4.7(1.95,11.41)*	0.001		0.989
	Others	1.0			
Regular contraceptive use	No	1.0		1.0	
	Yes	0.003 (0.001, 0.015)*	0.000	0.033(0.004,0.281)*	0.002
Ever practiced abortion	NO	1.0			
	Yes	0.041 (0.016,0103)*	0.000		1.000
Ever been pregnant	No	1.0			
	Yes	0.023 (0.010, 0.056)*	0.000		0.999

\* Indicates an association at p-value <0.05

### Discussion

From the total study participants, 216 (64.48 %) had ever heard of emergency contraception. This result was higher than the studies done among Female University Students in Addis Ababa (43.5%), Kampala University where 45%, And it was almost similar with study conducted among Nigerian undergraduate students and university students in Cameroon where 58% and 63% of respondents had heard of emergency contraceptives respectively (20,27,18&19). This discrepancy could be due to the socio demographic difference of the respondents such as the age, educational status and marital status of the respondents.

Knowledge of correct timing for emergency contraception was (17.3%) correctly identified recommended time frame limit to start the first dose of emergency contraceptives Pills after unprotected sexual intercourse and this result Gondar University students (73.3%), but it is almost similar with studies conducted in Nigerian undergraduate female students (18%) and Jimma University Community High School female students (19%) (17,19,25,26).

Out of total 11.04% use Emergency contraceptives which is higher than the other studies, In which is done in Addis Ababa where 4.9%, and 2.4% Arsi College female students and Jimma University female graduating students had ever used emergency contraceptive (22, 24, 27). But it was very low when we compared to the studies in Finland, in 2003, where 29% of aged 18 yrs had ever used. This could be related to knowledge difference of the country (16).

This study also showed that experience of using regular contraception had a significant association with emergency contraceptives use in multivariate regression, where those who used regular contraceptive methods used emergency contraceptive less likely compared to those who had no previous experience of regular contraceptive use. This finding is similar with the study conducted among college female students in Oromia Regional state, Arsi Zone (22). Ever used of emergency contraceptives was significantly higher among respondents who were married than single. This is similar to study conducted in female students in Addis Ababa University practice of emergency contraceptives was higher among students who were married and it was increased with increasing age of students (27). This could indicate that the service sites were not convenient to non-married clients.

### Conclusion

Knowledge of emergency contraceptive is crucial. But this study revealed that the knowledge and use of emergency contraceptive is very low. Therefore IEC on emergency contraceptive should be initiated at school level increase use and knowledge of Adolescents on emergency contraceptive.

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