

Assessment of Knowledge, Attitudes, and Practices Regarding Emergency-Contraception Methods among Female Dangila Hidase High School Students, Northwest Ethiopia, 2019

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Background: Emergency contraception is used after intercourse and before potential implantation, offering women a last chance to prevent pregnancy after unprotected sexual intercourse.

Objective: This study aimed to assess knowledge, attitudes, and practices regarding emergency contraception among female students at Dangila Hidase high school in northwest Ethiopia.

Methods: An institution-based cross-sectional study was conducted among female students at Dangila Hidase high school from May 1 to 30, 2019. Systematic random sampling was used to select study participants. There were 1,219 students in Dangila Hidase high school. Of these, 625 of them were female students. There were 346 female students in grade 9 and 279 students from grade 10. Samples were allocated proportionally to each grade. A pretested self-administered structured questionnaire was used. Data were entered into Epi Info 3.5 and exported to SPSS 24 for analysis.

Results: A total of 262 female students aged 16–19 years were approached, and the response rate was 100%. Among respondents who had heard about emergency contraceptive, pills were the most commonly known method 98, 51.4%) followed by intrauterine contraceptive devices 42, 22.1%). A total of 75 (58.6%) participants had knowledge of the recommended number of pills to be taken. Of the 190 (72.5%) respondents who knew about emergency contraception, 147, 77.4%) had favorable attitudes toward its use. Of those who had had sexual intercourse 70, 26.7%), only 20 (28.6%) had used emergency contraception.

Conclusion: Even though there is information available about emergency contraception, there is a gap with regard to the correct time of use. The positive attitudes of the respondents could be an indication of a fertile environment for possible interventions and reduction in maternal morbidity and mortality resulting from unwanted pregnancies and related complications.

Keywords: emergency contraceptive, unwanted pregnancy, Dangila, KAP

Introduction

The annual number of induced abortions in Africa rose between 2003 and 2008: from 5.6 million to 6.4 million. In 2008, the most abortions occurred in eastern Africa (2.5 million), followed by western Africa (1.8 million), northern and middle Africa (0.9 million), and southern Africa (0.2 million).^{1,2}

Ethiopia has the fifth-highest number of maternal deaths in the world: one in 27 women die from complications of pregnancies or childbirth annually. Low levels of

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contraceptive use lead to high levels of unwanted pregnancies and are the main driver of abortion. In 2008, 101 unintended pregnancies occurred per 1,000 women aged 15–44 years, and 42% of all pregnancies were unintended.⁸

Unsafe abortion is a major medical and public health problem in Ethiopia. Ethiopia has a highest incidence of unwanted pregnancies and unsafe abortions, particularly among adolescents.¹⁰ Unsafe abortion is one of the top of causes of the high rate of maternal morbidity and mortality in Ethiopia.¹¹

Emergency contraception (EC) is used after intercourse and before potential implantation, which offering women a last chance to prevent pregnancy after unprotected intercourse.^{1,2} Since it is difficult to determine the infertile time of the cycle with certainty, EC should be provided to any woman who is concerned about her risk of pregnancy, regardless of the day of exposure.²

General indications for EC are when no contraceptive has been used, when there has been a contraception accident or misuse, and when a woman is a victim of sexual assault.^{1,3} Oral pills and intrauterine contraceptive devices (IUCDs) are mainly used as EC 72 hours after sexual contact. Pills have the capacity to prevent pregnancy by 75%–85%, and with the use of IUCDs unwanted pregnancies can be prevented by as much as 99%. This is especially significant for those young couples that are not using regular long-term contraception and whose sexual behavior is rather unplanned, erratic, and irregular.^{4,5}

Methods

Study Design and Area

This institutional-based cross-sectional study was conducted from May 1 to 30, 2019 at Dangila Hidase high school, Awi Zone, northwest Ethiopia. This zone is one of 13 zones in Amhara Regional State and located 485 km northeast of the national capital (Addis Ababa) and 78 km from Bahir Dar, which is the capital of Amhara region.

By 2018 data, the total population of the town was 35,493, with females constituting 1,898.

This study included female grade 9 and 10 female students. Grade 9 classes had 346 female students and grade 10 279, for a total of 625. Total students at the school numbered 1,219.

Sample-Size Calculation

The single population–proportion formula was used to calculate the sample size, considering assumptions of

proportion of female student knowledge, attitudes, and practice (KAP) regarding EC of 50%, since data on KAP were not available, and a 5% margin of error (absolute level of precision). Using a population-correction formula and assigning a 10% nonresponse rate, the final sample size was 262.

Sampling Procedure

The study was conducted using systematic random sampling. We took 145 students from grade 9 and 117 from grade 10, making a total sample of 262. The sampling frame was prepared from the student-registration book (roster) in the school's record office. Sections were selected randomly from each grade. As such, six sections from grade 9 and seven from grade 10 were selected randomly by lottery. Study participants were selected randomly from the prepared sampling frame (their identification number) in each selected section using Microsoft Excel (random numbers generated by computer).

Operational Definitions

"Good knowledge" was assigned to respondents who answered $\geq 50\%$ of the questions correctly, and "poor knowledge" to those answering $< 50\%$ of the questions correctly. Were a need to arise, intention to use or recommend EC was considered a positive attitude and no intention to do so a negative attitude. Practice was taken as a positive response for any previous EC usage.

Data-Collection Tools and Procedures

A self-administered structured questionnaire was adapted from the literature and translated into the local language for better understanding. Students were informed about the purpose of the study, importance of their participation, and objectives of the study.

Data Quality Control

Data were collected from completed questionnaires. Two degree-holding midwives were assigned to supervise the data-collection process. Supervisors were given 1 day's training before the actual study and supervision process. Study participants were informed about the purpose of the study and the importance of their participation, and written consent was obtained. The quality of data was assured by proper design and pretesting of the questionnaires. Overall activity was controlled by the principal investigator.

Data Processing and Analysis

Data were checked for completeness and consistency. Data cleaning was done manually by removing missing responses to questions about relevant information. Data were entered into Epi Info 7 and exported to SPSS 21 for analysis. Descriptive statistics were used for variables using statistical parameters of frequencies and percentages, and are presented in table format.

Results

Sociodemographic Characteristics

In this study, the response rate was 100%. Of the study participants, 145 (55.3%) were from grade 9 and 117 (44.3%) from grade 10. Almost all the respondents (98.5%) were aged 16–19 years, and seven (1.5%) were aged >20 years. In sum, 250 (95.4%) were Christian Orthodox and 234 (89.3%) single (Table 1).

Sexual and Reproductive Characteristics

A total of 155 (59.1%) reported having had menarche by the age of 15–17 years and the rest by the age of 11–14 years.

Seventy (26.7%) respondents had had sexual intercourse. Of those who had had sexual intercourse, 24 (34.3%) had been forced. Of those who had forced sex, friends (eleven, 45.8%), unknown persons (8, 33.3%), and families (5, 20.8%) were committing the majority of forced sex.

Knowledge about Emergency

Contraception

A total of (72.5%) respondents had heard about EC, and pills were the most commonly known method (51.4%), while 75 (58.6%) had knowledge about the recommended number of pills to be taken. Of these, 49 (38.28%) knew that EC can be used within 72 hours, and 27 (21.1%) knew the recommended time to take the second pill. Thirty (31.9%) had heard of recommended times for IUCDs (Table 2).

Attitudes Toward Emergency

Contraception

Of 190 (72.5%) respondents who knew about EC, 111 (58.4%) said they used EC after they had had unintended sexual intercourse, and 147 (77.4%) gave advice to friends to use EC (Table 3).

Emergency-Contraception Utilization

Of those who had had sexual intercourse (70, 26.7%), only 20 (28.6%) had used EC, with 19 (95%) using pills and

Table 1 Sociodemographic Characteristics of Study Participants in Dangila, May 2019 (n=262)

	n	%
Age, years		
16–19	255	98
>20	7	1.5
Relationship status		
Single	234	89.3
Married	16	6.1
Boyfriend	8	3.1
Divorced	4	1.5
Religion		
Orthodox	250	95.4
Muslim	8	3.1
Protestant	3	1.1
Catholic	1	0.4
Living arrangements		
With parents	221	84.4
With families	19	7.3
Live alone	15	5.7
With friend(s)	7	2.7

Table 2 Knowledge of EC Among Female Dangila Hidase High School Students, May 2019

	Category	n	%
Recommended time to take pills (128)	Within 72 hours	49	38.28
	Within 24–48 hours	28	21.86
	I do not know	51	39.84
Heard about IUCDs (262)	Yes	72	27.5
	No	190	72.5
Recommended time for IUCD (72)	Within 24 hours	19	26.4
	Within 72 hours	23	31.9
	Within 5 days	30	41.7

one (5%) using an IUCD. Of those who used EC, almost all (90%) used it within the correct time frame and eleven (55%) had been advised by female friends, while 16 (80%) had used once. A couple of the reasons for not using ECs were not knowing about the availability of EC ten, 14.3%) and fear of stigma (four, 5.7%; Table 4).

Discussion

This study investigated KAP regarding EC methods among female Dangila Hidase high school students in Amhara regional state, northeast Ethiopia.

Table 3 Attitudes Toward EC Among Female Dangila Hidase High School Students, May 2019

Beliefs	Agree		Neutral		Disagree	
	n	%	n	%	n	%
If I had unintended sexual intercourse I would use ECPs.	111	58.42	26	13.7	53	27.9
If a close friend had unintended sexual intercourse, I would advise her to use ECPs.	147	77.4	23	12.1	20	10.5
Widespread use of ECPs will increase the risk of STIs, including HIV/AIDS.	96	50.5	72	37.9	22	11.6
Emergency contraception promotes promiscuity.	72	37.9	99	52.1	19	10
Emergency contraception is a method of abortion.	74	38.9	78	41.1	38	20
I do not want to use emergency contraception, for fear of side effects.	79	41.6	77	40.5	34	17.9
Unplanned sexual intercourse is a problem of all young females.	93	48.9	50	26.3	47	24.7

Table 4 Practice of EC Among Female Dangila Hidase High School Students, May 2019

	Category	n	%
Reason for not using EC (50)	I do not know about EC availability	10	14.3
	Fear of stigma	4	5.7
	Privacy not kept and others	9	12.6
	I do not want to use	47	67.1
Time when EC used	Within 72 hours	72	65
	Within 24 hours	24	25
	I do not know	2	10
Frequency of EC usage	Once	16	80
	Twice	4	20
Who told you to use EC?	Friend/female	11	55
	Friend/male	2	10
	Health worker	7	35

Around 26.7% of study participants had had sexual intercourse. This finding was lower than a study conducted in Nigeria, where 43% were sexually active.¹² Possible reasons for this difference might be age, marital status, and level of education.

Our finding is higher than a study done in Addis Ababa, where 19.5% of study participants were sexually active, but not using protection.¹³

We found that 72.5% of the participants had heard about EC. This is higher than a study conducted in Adama University, which showed 46.8%.⁷

This difference may be due to better utilization of family-planning services, including EC, in the study area, increased awareness of participants over time about EC, and the presence of clubs in the school to enhance participants' understanding about reproductive health-related issues.

In our study, 77.4% of participants had positive attitudes toward EC. The Adama University study showed that 62.9% had positive attitudes toward EC. This difference may be due to study-duration, population, and awareness differences that led subjects to have better attitudes toward EC. In this study, utilization of contraceptive pills after unprotected sexual intercourse was the most widely known method. The most common source of information was health workers (58.9%) followed by school (18.9%). A study conducted at Jimma University showed that the most common sources of information were friends and peer discussion. However, of those who had heard about EC, 58.9% had good knowledge.⁶ From those respondents who knew about EC, only 10.5% had ever used it. This finding is in line with the studies done in Addis Ababa University,¹³ Adama University⁷ and Jimma University.⁶

Limitations

Statistical analysis of possible factors associated with KAP regarding EC use was not performed.

Conclusion

Though there is information available on EC, there is a gap with regard to the correct time of use. The positive attitudes of respondents could be an indication of a fertile environment for possible interventions and reduction in maternal morbidity and mortality resulting from unwanted pregnancies. Some reasons for not using contraceptives among youths were fear of social stigma, inadequate knowledge of where and how to get the service, and not trusting health professionals regarding privacy.xxxx

Abbreviations

EC, emergency contraception; ECPs, emergency contraceptive pills; IUCD, intrauterine contraceptive device; KAP, knowledge, attitudes, and practice.

Ethics Requirements

Ethics clearance was obtained from the Institutional Review Board of Bahirdar University. All participants provided written informed consent, and this study was conducted in accordance with the Declaration of Helsinki with regard to ethical principles for medical research involving human subject. For participants aged <18 years, parental or legal guardian consent was waived by the ethics committee, provided that the research project carried no more than minimal risk and disclosure of contraception utilization to parents were confidential.

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Disclosure

The funder had no role in study design, data collection/analysis, interpretation of data, decision to publish, or preparation of the manuscript. The authors declare that they have no conflicts of interest for this work.

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