

Assessment of knowledge towards emergency contraceptives among college students in Ramechhap district of Nepal

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ABSTRACT

Introduction: A high rate of unintended pregnancy exists among college students as they belong to the sexually active age group. So, it is significant to know the knowledge of college students regarding emergency contraceptives. The objectives were to assess the knowledge of students towards emergency contraceptives and to identify the association between male and female students towards knowledge of emergency contraceptives.

Method: An online survey in Ramechhap district among college students studying in bachelor's and master's level was conducted from March 15, 2022 to April 10, 2022 where total of 169 students participated. Non parametric test was used to find the result of the objectives.

Result: The study showed that 83.4% students had the knowledge of Emergency Contraceptive pills and 59.2% of students first heard about such pills in the last 5 Years. Among them 79.9% of students knew where to get Emergency Contraceptive pills, 24.2% of students know the Emergency Contraceptive pills works if there is menstrual delay. Only 56.9% of students know the time to take Emergency Contraceptives pills after unprotected sexual intercourse and 46.7% of students know that the Emergency Contraceptive pill is not used for regular contraception. Only 49.1% of students know the right number of tablets that needs to be consumed after unprotected intercourse.

Conclusion: Majority of the students are aware of the Emergency Contraceptive pills however they have limited understanding about it. In comparison to female students, male had better understanding about Emergency Contraceptives.

Keywords: Emergency contraceptive (EC), knowledge, Ramechhap, students

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INTRODUCTION

The morning-after pill, often known as the emergency contraceptive pill, is a postcoital contraceptive regimen that is commonly available as four pills in oral form containing combination of estrogen-progestin (each containing 100mcg Ethinyl Estradiol and 0.5mg Levo-Norgestrel).¹ Contraception is an effective first-line approach for lowering maternal mortality. It is projected that adequate contraception might save 90% of abortion-related deaths and more than 20% of obstetric-related deaths over the world.² As per reports, the universal use of Emergency contraceptives might prevent 1.7 million unwanted pregnancies and 0.8 million abortions in the United States each year, as well as 51 million abortions globally.³ Therefore, Emergency Contraceptive is viewed as a viable treatment for preventing pregnancy following unprotected sexual contact, contraceptive failure, and inappropriate use of other methods of contraception.⁴

The World Health Organization (WHO) reports that one woman dies every eight minutes in impoverished nations as a result of unsafe abortion. Approximately five million women seek hospitalization each year as a result of unsafe abortion.⁵ Unintended pregnancy continues to be a serious issue among adolescent girls in developing countries, posing a threat to their reproductive health, making it vital to enhance their contraceptive awareness and use.⁶ There is high incidence of unintended and teenage pregnancy. So, knowledge and practices about Emergency Contraceptives are especially vital. The recent introduction of Emergency Contraceptives may be able to assist them in avoiding such unplanned births. Every year, 20 million illegal abortions occur worldwide, with 97 percent occurring in underdeveloped nations.⁷

Policy makers and education planners in Nepal may benefit from research on Emergency Contraceptive awareness among college students.⁸ Furthermore, no study on young college students outside the Kathmandu valley has been conducted to know about the knowledge of the usage of Emergency Contraceptive pills. Therefore, this study was carried out to assess the understanding of college students in Ramechhap district on the use of Emergency Contraceptive pills.

Objectives

1. To assess the knowledge regarding Emergency Contraceptives among college students in Ramechhap District of Nepal.

2. To identify the association between male and female students towards knowledge of Emergency Contraceptives.

METHOD

In Ramechhap district of Nepal, a cross-sectional study was conducted from March 15, 2022 to April 10, 2022 among 169 students studying at the Bachelors' and Master's levels.

$$n = N * X / (X + N - 1),$$

where,

$$X = Z_{\alpha/2}^2 * p * (1-p) / MOE^2,$$

and $Z_{\alpha/2}$ is the critical value of the Normal distribution at $\alpha/2$ (e.g. for a confidence level of 95%, α is 0.05 and the critical value is 1.96), MOE is the margin of error 5%, p is the sample proportion=50%, and N is the population size=289.²

Random sampling technique was used to select the participants for the study. Literature review and conceptual frameworks were used to develop the questionnaire for the study. An English version of questionnaire was first developed and then translated into Nepali. A self-administered online (kobo toolbox) questionnaire was used to evaluate the knowledge. Cronbach's Alpha test was conducted in order to check the reliability of the data. The test result observed was 0.72, which is acceptable. All the participants were provided with written informed consent and were clearly informed of the study's objectives. No personally identifiable information was included in the questionnaire, and all identifiers were promptly removed. Information was stored in a password-protected laptop to protect the confidentiality of the data. For the analysis of the data, SPSS version 20 was used. Statistical analyses consisted of frequency, percentage, mean and chi-square test.

RESULT

Descriptive statistics

Table 1. Age of the respondents

	N	Min	Max	Mean	Std. Dev.
Age	169	17.00	41.00	23.4320	5.05886
Valid N (list wise)	169				

This study used Ramechhap as the sample district, and the respondents were male and female students, with 26.6 percent and 73.8 percent, respectively. In this study, 83.4 percent of respondents represent students studying for a bachelor's degree, and 16.6 percent represent those pursuing a master's degree. The minimum

age was 17 years and the maximum age was 41 years, with a mean age of 23.4.

Knowledge of the pill(s) that can aid in preventing pregnancy after unprotected intercourse.

The table 2 reveals that the majority of students, 86% of male and 82.3% of female, had heard about Pills that can help avoid getting pregnant after unprotected intercourse whereas, 13.4% of male and 17.7% of female students were found to be unaware of such pills.

Table 2. Knowledge regarding use of pills in prevention of unwanted pregnancies

		Have you heard of any pill(s) that can help you avoid getting pregnant after unprotected intercourse?		Total
		Yes	No	
Gender	Male	39(86.6%)	6(13.4%)	45
	Female	102(82.3%)	22(17.7%)	124
Total		141(83.4%)	28(16.6%)	169
Chi-Square Tests				
		Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square		.464 ^a	1	.496

Table 3. Time when first introduced to pill

		When did you first hear about emergency contraceptive pills?				Total
		< 6 months	6-11 months	1-5 years	Don't remember	
Gender	Male	2(4.5%)	1(2.3%)	22(48.8%)	20(44.4%)	45
	Female	13(10.5%)	12(9.7%)	50(40.3%)	49(39.5%)	124
Total		15(8.8%)	13(7.7%)	72(42.7%)	69(40.8%)	169
Chi-Square Tests						
		Value		Df	Asymp. Sig. (2-sided)	
Pearson Chi-Square		4.508 ^a		3	.212	

Table 4. Knowledge on availability of pills in an emergency

		Do you know where a lady may get contraceptive tablets in an emergency?				Total
		Govt Hospital/Health Centre	Private Clinic	Pharmacy/Chemist Shop	Don't know	
Gender	Male	14(31.1%)	14(31.1%)	12(26.7%)	5(11.1%)	45
	Female	50(40.3%)	18(14.5%)	27(21.8%)	29(23.4%)	124
Total		64(37.9%)	32(18.9%)	39(23.1%)	34(20.1%)	169
Chi-Square Tests						
		Value		Df	Asymp. Sig. (2-sided)	
Chi-Square Tests		8.358 ^a		3	.039	

Table 5: Knowledge if pills work during menstrual delay

		Would these pills work if there is a menstrual delay?			Total
		Yes	No	Don't know	
Gender	Male	10(22.3%)	13(28.9%)	22(48.8%)	45
	Female	31(25%)	32(25.8%)	61(49.2%)	124
Total		41(24.2%)	45(26.6%)	83(49.2%)	169
Chi-Square Tests					
		Value		Df	Asymp. Sig. (2-sided)
Pearson Chi-Square		.223 ^a		2	.894

Table 6. Knowledge on duration of use of pills

		How long emergency contraception tablets should be used after unprotected intercourse?			Total
		Within 24 hours	Within 72 hours	Don't know	
Gender	Male	4(8.9%)	32(71.1%)	9(20%)	45
	Female	24(19.3%)	64(51.6%)	36(29.1%)	124
Total		28(16.5%)	96(56.9%)	45(26.6%)	169
Chi-Square (x ²)Tests					
		Value		Df	Asymp. Sig. (2-sided)
Pearson Chi-Square(x ²)		5.404 ^a		2	.067

Table 7. Knowledge on use of emergency pills as regular contraception

		Can emergency pills be used for regular contraception?			Total
		Yes	No	Don't know	
Gender	Male	7(15.6%)	30(66.6%)	8(17.8%)	45
	Female	32(25.8%)	49(39.5%)	43(34.7%)	124
Total		39(23.2%)	79(46.7%)	51(30.1%)	169
Chi-Square (χ^2) Tests					
		Value	Df	Asymp. Sig. (2-sided)	
Pearson Chi-Square(χ^2)		9.835 ^a	2	.007	

Table 8. Knowledge on number of pills to be taken

		After unprotected intercourse, how many tabs do you recommend?				Total
		1	2	3	Don't Know	
Gender	Male	23(51.2%)	4(8.9%)	2(4.3%)	16(35.6%)	45
	Female	60(48.3%)	12(9.6%)	5(4.2%)	47(37.9%)	124
Total		83(49.1%)	16(9.6%)	7(4.1%)	63(37.2%)	169
Chi-Square Tests						
		Value	Df	Asymp. Sig. (2-sided)		
Chi-Square Tests		.134 ^a	3	.987		

Statistical analysis based on Pearson Chi-Square methods reveals that knowledge of pills that can help avoid getting pregnant after unprotected intercourse was not significantly associated with males and females since $P = 0.496$ is greater than 0.05 (table 2).

When did they first hear about emergency contraceptive pills?

Students were asked about when they first heard about Emergency Contraceptive pills. The result shows that the maximum percentage of students, 42.7%, heard of it between 1–5 years ago, 40.8% did not remember when they first heard about Emergency Contraceptive. (Table 3)

The statistical analysis of the Pearson chi-square test shows that there was no significant association between the male and female students, $p = 0.212$, regarding when the responders first heard about emergency contraceptive pills. (Table 3)

Knowledge regarding where to get contraceptive tablets in an emergency

Students were asked about their knowledge regarding where to get contraceptive tablets in an emergency. The result showed that the maximum 37.9% percentage of students responded in government hospitals/health centers, 23.1% responded in pharmacies/chemist shops and 18.9% responded in private clinics. Similarly, 20.1% of students did not know where they could get contraceptive tablets in an emergency. (Table 4)

The statistical results from the Pearson Chi-Square test indicated that there was a significant association between male and female students

regarding the knowledge of where they could find contraceptive tablets in an emergency, as the $P = 0.039$ is lower than the 0.05 significance. (Table 4)

Knowledge on whether the pill works if there is a menstrual delay

Students were asked regarding knowledge on whether the pills work if there is a menstrual delay. The result shows that a maximum 49.2% of students responded that they don't have knowledge if these pills work in case of menstrual delay. However, 26.6% responded that these pills don't work if there is a menstrual delay, and 24.2% responded that these pills work if there is a menstrual delay. (Table 5)

Pearson Chi-Square test statistics indicate that there is no significant association between male and female regarding Knowledge whether pill works if there is a menstrual delay since the $p=0.894$ values, which is greater than a significant 0.05. (Table 5)

Knowledge about how long emergency contraceptive tablets should be used after unprotected intercourse

Students were asked about how long emergency contraceptive pills should be used after unprotected intercourse. The result shows that the maximum 56.9% of students responded within 72 hours, 16.5% responded within 24 hours, and 26.6% of students didn't know anything about how long emergency contraception pills should be used after unprotected intercourse. (Table 6)

In comparison, male respondents have better knowledge about how long emergency

contraception pills should be used after unprotected intercourse.

Pearson Chi-Square test statistics indicate that there is no significant association between male and female regarding Knowledge on how long emergency contraception tablets should be used after unprotected intercourse since the $p=0.894$ values, which is greater than a significant 0.05. (Table 6)

Knowledge about use of pills for regular contraception

Students were asked about their knowledge on use of Emergency contraceptive pills for regular contraception. The result shows that a maximum 46.7% of students responded that these pills should not be used for regular contraception, 23.2% responded that they can be used for regular contraception, and 30.1% of students didn't have any knowledge about the use of Emergency pills for regular contraception.

In comparison, male respondents had more knowledge about the use of pills. The Pearson Chi-Square test statistics indicate that there is a significant association between males and females regarding knowledge about pills used for regular contraception since the $p = 0.007$ value, which is less than a significant 0.05 value. (Table 7)

Knowledge about number of tablets recommended after unprotected intercourse

Students were asked to know about the number of tabs recommended after unprotected intercourse. The result shows that the maximum percentage of students responded to 1 tablet, 9.6% responded to 2 tablets, and 4.1% responded to 3 tablets. Similarly, 37.2% of students didn't know the number of tablets needed after unprotected intercourse. (Table 8)

In comparison, male students have better knowledge regarding the number of tablets needed to recommend after unprotected intercourse.

The Pearson Chi-Square test statistics indicate that there is no significant association between males and females regarding knowledge about the number of tablets recommended after unprotected intercourse since the $p=0.894$ value, which is greater than the significant 0.05. (Table 8)

DISCUSSION

The study was divided into two parts. The first part was to examine the knowledge of emergency

contraceptives. The study showed that the majority of students have heard about any pills that prevent getting an unwanted pregnancy. They were also aware of where to get such pills. However, 49.2% of students didn't know the knowledge of how a pill works if there is a menstrual delay. 43.1% of students didn't have the knowledge about how long EC tablets should be used after unprotected intercourse and 53.3% of students didn't have the knowledge about pill's use for regular contraception. Similarly, 50.9% of students didn't know how tablets were supposed to be consumed after unprotected intercourse. Similar findings to a study conducted by Mamuye and his companions in Northwest Ethiopia showed a total of 262 female students aged 16–19 years were addressed, with a 100% response rate. Pills were the most commonly recognized technique (98, 51.4 percent), followed by intrauterine contraceptive devices (42, 22.1 percent) among those who had heard about emergency contraception. The recommended quantity of tablets to be consumed was known by 75 (58.6%) of the participants.⁹ In another quantitative cross-sectional study of 220 full-time female students of Kaduna Polytechnic over 18 years of age, it was found that 14.6 percent of students had ever heard of EC pills, with the most prevalent progesterone only pills (Postinor brand) (54.8 percent) and 4.4 percent knowing the proper timing of usage. The majority of people (97.7%) had limited awareness about EC pills and only used it 14.2% of the time. Religion, "have had intercourse," and regular contraceptive usage were all linked to awareness of EC Pills ($p < 0.05$), but not knowledge levels ($p > 0.05$), according to bivariate analysis.¹⁰

The second step is to find out male and female students knowledge about hearing about emergency contraceptive pills; knowing how pills work if there is a menstrual delay; knowing how long emergency contraceptive tablets should be used after unprotected intercourse; and knowing how many tabs they recommend. Result show that male students were slightly more aware of Emergency Contraceptive than female students. It is also found that there is a significant association between male and female students' knowledge on where a lady may get contraceptive tablets in an emergency and knowledge about the use of pills for regular contraception. This indicates there is no difference in understanding among male and female students of this statement.

This study was limited to the Ramechhap district and only undergraduate and graduate students participated, so the results cannot be generalized.

CONCLUSION

The study showed that the majority of students have heard of medicines that can aid to avoid unwanted pregnancies. They also knew where to find such medications. However, students have limited awareness of how EC pills work when there is a monthly delay as well as how many EC tablets should be used. In terms of EC, male students had a greater understanding than female students. Therefore, lectures and workshops are recommended to raise awareness and reveal opinions on how to utilize EC tablets and their effects by health care professionals in future in remote areas like Ramechhap district.

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