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Knowledge on Emergency Contraceptives Among Diploma Level Students in Kathmandu District

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ABSTRACT

Background: Emergency Contraceptive Pills (ECPs) is a type of modern contraception that is indicated after unprotected sexual intercourse or contraceptive failure. Use of ECPs with in a defined time period could prevent unwanted pregnancy and its adverse consequences like unintended child birth and unsafe abortion. This study was done to assess knowledge of emergency contraceptive pills among Diploma Level students of Kathmandu District.

Methodology: Descriptive cross-sectional study was carried out among the diploma level (PCL general medicine) students of 15-24 years of Kathmandu district in the month of December 2020 to May 2021. A total of 344 diploma level students from six colleges were taken and a multi-stage sampling technique was used and self-administered questionnaires were used to assess the knowledge and attitude after getting consent. Data processing and analysis was done using SPSS version 25.

Results: Out of the total students 344, (53.5%) are in the age of 18 or below years, about (98.0%) of the respondents had ever heard about emergency contraceptives. The major sources of information were mass media (24.6%), followed by health care provider, social media and colleges. Only (40.4%) of students had good knowledge of ECPs.

Key words: Diploma Level Students, Emergency contraceptive Pills, Knowledge

Declaration: There is no conflict of interest

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INTRODUCTION

Emergency contraceptive (EC) is a method of preventing unwanted pregnancy after a female have had unprotected sexual intercourse, contraceptive method failure, or forced to have sex against their will as well as from lack of knowledge about access to contraception, it is also known as "morning-after" or "post coital" contraceptive. Emergency contraceptive reduce women's risk of becoming pregnant by 75 to 85 percent and, when used in combined with intra-uterine contraceptive device (IUCD), it can be prevented up to 99 percent, depending upon the method used within defined time limit after unprotected sexual intercourse (Nibabe & Mgutshini, 2014). EC is brought to be more effective when used within 72 hour of unprotected intercourse but recent research have showed that it is effective within 120 hour (Mahmood & Nisar, 2012). Emergency contraceptive is not recommended as regular family planning method, it is used occasionally(Tajure, 2011).

Hormonal emergency contraceptive pills consists of combined oral contraceptive pills which should be taken within 72 hours of unprotected sexual intercourse and then 12 hour late (Tesfa, 2015). South Asia unwanted pregnancy is one of the leading cause of maternal mortality and morbidity (S. Thapa et al., 2015). The large number of unwanted pregnancy in South and South-East Asia include low rate of contraceptive use, contraceptive method failure and high unmet need of contraceptive and between 8 to 30 million pregnancies each year results from contraceptive failure either due to inconsistent or incorrect use of contraceptive methods or failure of method itself (Mahmood & Nisar, 2012).

In Asia, the rate of unintended pregnancy is high as 49 per 1000 women aged 15 to 44 and the rate of induced abortion in Asia is 28 per 1000 women aged 15 to 44 years (Shakya et al., 2020). And about one half of the 6 million pregnancies in United State are unintended and more than half of all unintended pregnancies occurs due to contraceptive failure (Mohammed et al., 2019). Emergency contraceptive has been available for almost 30 years but the percentage of women familiar with the method is only 46% and about one third of all the pregnancies are unplanned and 20% of them ends in abortion therefore, In the year 2000 Jones et al estimates that the use of emergency contraceptive prevented more than fifty thousand abortions and accounted for 43% of the total in the abortion rate between 1994 to 2000 (B. Thapa, 2013)

METHODS

This study was descriptive type conducted among 344 students of 15 to 24 years of diploma level students in Kathmandu district from Dec 2020 to May 2021. Out of the total 12 general medicine colleges in the Kathmandu district, 6 colleges were selected. A multi-stage sampling technique was used which follow as the first stage simple random sampling for selection of colleges and second stage simple random sampling for the selection of respondents from each college. The sample size is calculated using a single proportion formula calculating 95% confidence interval, 5% margin of error and 68% knowledge

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of ECP (from previous similar study). Structured questionnaires were used as tools for data collection. The data were collected using self-administered questionnaires.

RESULTS

A total of 344 students of Diploma Level Students were included in the study. About 184 (53.5%) of the students were in the age group of 18 or below years and 160 (46.5%) of the students were 19 or above years. The majority of respondents 178 (51.7%) were female whereas 166 (48.3%) were male. Maximum respondents 114 (33.1%) were from province two whereas minimum 11 (3.2%) were from province four.

The majority of respondents 333 (96.8%) were unmarried, 7 (2%) were in relationship and 4 (1.3%) were married.

About 149 (43.3%) were studying at third year, 102 (29%) were second year and 93 (27%) were first year. Most of the respondents 290 (84.3%) were Hindus followed by Buddhist 31 (9.0%), Christian 12 (3.5%) and Muslim 11 (3.2%). About 163 (47.4%) were Brahmin/Chhetri, 97 (28.2%) Madeshi, 52 (15.1%) Janjati, 13 (3.8%) Dalit, 9 (2.6%) Newar and 10 (2.9%) Others. Majority of respondents mother 202 (58.7%) was housewife whereas 114 (33.1%) father was businessman.

Variable	Category	Frequency (n=344)	Percent (%)
Age	18 or below	184	53.5%
	19 or above	160	46.5%
Sex	Male	166	48.3 %
	Female	178	51.7 %
Province	Province 1	31	9.0 %
	Province 2	114	33.1 %
	Province 3	76	22.1 %
	Province 4	11	3.2 %
	Province 5	15	4.4 %
	Province 6	43	12.5 %
	Province 7	54	15.7 %
Marital status	Unmarried	333	96.8 %
	Married	4	1.2 %
	In relationship	7	2.0 %

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Variable	Category	Frequency (n=344)	Percent (%)
Religion	Hindu	290	84.3 %
	Muslim	11	3.2 %
	Buddhist	31	9.0 %
	Christian	12	3.5 %
Ethnicity	Brahmin/Chhetri	163	47.4 %
	Dalit	13	3.8 %
	Janjati	52	15.1 %
	Newar	9	2.6 %
	Madeshi	97	28.2 %
	Others	10	2.9 %
Mother's education	Can read and write	94	27.3 %
	Cannot read and	102	29.7 %
	write	61	17.7 %
	Primary level	56	16.3 %
	Secondary level	22	6.4 %
	Bachelors	5	1.5 %
	Masters	4	1.2 %
	Other		
Father's education	Can read and write	75	21.8 %
	Cannot read and	17	4.9 %
	write	62	18.0 %
	Primary level	109	31.7 %
	Secondary level	36	10.5 %
	Bachelors	37	10.8 %
	Masters	8	2.3 %
	Other		
Mother's occupation	Agriculture	65	18.9 %
	Business	38	11.0 %
	Service	20	5.8 %
	Labor	2	.6 %
	Foreign employment	5	1.5 %
	Housewife	202	58.7 %
	Others	12	3.5 %

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Variable	Category	Frequency (n=344)	Percent (%)
Father's occupation	Agriculture	103	29.9 %
	Business	114	33.1 %
	Service	53	15.4 %
	Labor	11	3.2 %
	Foreign employment	30	8.7 %
	Others	33	9.6 %

To assess the knowledge of the respondents on Emergency Contraceptive Pills, selected variables were used and then the correct answer was coded as 'Yes' which means '1' and an incorrect answer was coded as 'No' which means '0'. Then cumulative and mean scores were calculated. Respondents who scored above the mean score were defined as having "good knowledge" and those who scored below the mean score were defined as having "poor knowledge". Out of 334 respondents, 337 (98.0%) heard about Emergency Contraceptive Pills. Among 337 respondents who know about ECPs from TV/Radio were 83 (24.6%). Majority of respondents 158 (46.9%) mentioned that emergency contraceptive pills are not 100% effective. Of those 337 students 158 (46.9%) respond that ECPs does terminate pregnancy in case of pregnant whereas 162 (48.1%) respond that ECPs are available without prescription. A majority of 165 (49.0%) reported that ECPs are more effective when it taken immediately and 162 (48.1%) reported that ECPs do not provide protection against STD. Moreover, the about 133 (39.5%) of the students reported that recommended time to take ECPs is within 72 hours of unprotected sexual intercourse and 145 (43.0%) respond that recommended dose for ECPs is one dose whereas 36 (10.7%) respond for two dose, 22 (6.5%) respond for three dose and 134 (39.8%) respond that they don’t know. Likewise, the respondents mentioned for recommended time interval between the doses for ECs 36 (10.7%) for 12 hour, 145 (43.0%) for 24 hour and 156 (46.3%) replied that they don’t know. The overall knowledge level among students was only 136 (40.4%) has good knowledge which is very low.

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Table 2: Knowledge of Emergency Contraceptive Pills among general medicine students of Kathmandu District

Knowledge statements	Frequency(n=344)	Percent (%)
Ever heard about emergency contraceptive pills?		
Yes	337	98.0 %
No	7	2.0 %
Source of ECPs information?	**(n= 337)**	
TV/Radio	83	24.6 %
Relatives	19	5.6 %
Boyfriend/Girlfriend	7	2.1 %
Friends	9	2.7 %
Internet	74	22.0 %
Magazine/Newspapers	5	1.5 %
Healthcare providers	82	24.3 %
School/College	55	16.3 %
Others	3	.9 %
Are ECPs 100% effective?		
Yes	96	28.5 %
No	169	50.1 %
Don't know	72	21.4 %
ECPs terminate pregnancy, if women already pregnant?		
Yes	72	21.4 %
No	158	46.9 %
Don't know	107	31.8 %
ECPs are available only by prescription only?		
Yes	86	25.5 %
No	162	48.1 %
Don't know	89	26.4 %
ECPs are more effective when taken immediately?		
Yes	165	49.0 %
No	89	26.4 %
Don't know	83	24.6 %
ECPs provide protection from STDs?		
Yes	109	32.3 %
No	162	48.1 %
Don't know	66	19.6 %

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Knowledge statements	Frequency(n=344)	Percent (%)
Recommended time to take ECPs?		
Within 24 hours after sex	84	24.9 %
Within 48 hours after sex	14	4.2 %
Within 72 hours after sex	133	39.5 %
Within 120 hours after sex	24	7.1 %
Don't know	82	24.3 %
Recommended number of dose for ECPs?		
One dose	145	43.0 %
Two dose	36	10.7 %
Three dose	22	6.5 %
Don't know	134	39.8 %
Recommended time between doses of ECPs?		
12 hours	36	10.7 %
24 hours	145	43.0 %
Don't know	156	46.3 %
Knowledge level	Good knowledge	Poor knowledge
	136 (40.4%)	201 (59.6%)

Discussion

Each year there are about 250 Million pregnancies globally and one third are unintended or unplanned, and (22%) of these undergo induced abortion (Davis et al., 2020). In Nepal, study conducted among 100 women aged 15-45 years, 95 of them were married and 31% among them said that their last pregnancy was unplanned and 41% had history of induced abortion. (Putchakayala et al., 2018). Knowledge of Emergency Contraception is crucial, since women must know they can prevent pregnancy after intercourse in order to seek out treatment, while rates of unwanted pregnancy vary in different countries and population group. This study aimed to assess the knowledge on Emergency Contraceptives pills among diploma level students of Kathmandu district. In this study (98.0%) of the total respondents i.e. 344 had heard about Emergency Contraceptive. Similar result were found in among Female Students in Seto Semero High School, South West Ethiopia, where 40.5% of the respondents had heard about ECPs (Tesfa, 2015), and similar results were also found in the study conducted in Tanahu and Kathmandu which was 68% (Adhikari, 2009). And similar results were found in College of Human Sciences, University of South Africa with 69.9% in (Nibabe & Mgutshini, 2014). Source of information in the study were (24.6%) from mass

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media TV (radio), (24.3%) healthcare providers, (22.0%) social media internet and (16.3%) school/college. Similarly, in Seto Semero High School, South West Ethiopia indicates that major source of information were TV, radio which accounts (35.6%), and (25.2%) health professional and (15.7%) friend (S. Thapa, 2016). The possible reasons may be due to mass media more access in the campuses area. In the present study, the proportion of participants who correctly knew the recommended time (within 72 hour) for emergency contraception was (39.5%) higher than the study conducted in South West Ethiopia (27%) (Tesfa, 2015) and the studies conducted in Arba MinchTown, Southern Ethiopia (26.4%) (Minch, 2010).

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