Awareness and Attitude towards Emergency Contraception

ROSHANI KHADKA

Teaching Assistance,

Health and Physical Department

Mahendra Ratn Campus, Tahachal

roshanik.aryal@gmail.com

ABSTRACT

Globally, unintended adolescent pregnancies pose a significant burden. One of the most important tools that can help prevent unintended pregnancy is the timely use of emergency contraception (EC), which in turn will decrease the need for abortions and complications related to adolescent pregnancies. The objective of this study was to assess awareness and attitude towards emergency contraception among secondary level students. A descriptive cross sectional study was conducted in grade eleven and twelve students in Manmohan Memorial College in 2020 Jan-Feb purposively. Out of total population, 105 sample students were randomly selected. A self-administered semi-structured questionnaire was used to collect the data. Among 105 respondents, highest proportions (41%) of the respondents were aged 17 years. Majority (75.2%) of the respondents was aware that oral contraceptive pills can be used as EC method. Majority (65.7%) of the respondents replied I pill as EC available in Nepal. (65.7%) of the respondents stated that awareness program is needed to be promoted by government, (62.9%) of the respondents said that information about EC is needed to be provided by educational institutions, (42.9%) of the respondents disagreed that abortion is better than using EC. Based on the findings of the study it is concluded that higher secondary level students tends to have awareness and positive attitude towards EC.

***Key Words**:* Emergency Contraception, unintendent pregnancy, abortion,

Background

Emergency Contraception (EC) refers to methods of contraception that can be used to prevent pregnancy after sexual intercourse. These are recommended for use within 5 days but are more effective the sooner they are used often no contraceptive has been used, when the woman was not protected by any contraceptive method as in case of sexual assault and when there is concern of possible contraceptive failure, from improper or incorrect use (WHO, 2018). EC is intended for occasional emergency use and should not be considered a substitute for effective regular

contraception (Faculty of Sexual & Reproductive Healthcare, 2017).

Two types of emergency contraceptives are available. They are mechanical and hormonal method. The mechanical method is intrauterine device and hormonal method is of two types. They are progestin pills containing 0.75 levonorgestrel and combined oral contraceptive pill containing progestin 0.3mg and ethinyl estrogen 0.03mg in each. Among all the IUCD is highly effective (99.4%), followed by COC (98%) and levonorgestrel being the least (97%). Emergency contraception is the only post coital drug; it is easily available and accessible at the counter drug. It prevents pregnancy after unprotected sex. Hence, it is one of the appropriate methods for teenagers who cannot access other family planning method (as cited Pradhan et. al. 2020).

Emergency contraceptive was introduced in Nepal a decade ago in the year 2004 by private sector and its trend has increased since 2009 with the introduction of ECON in Nepal (Thapa, 2016).

Worldwide, 25 million unsafe abortions (45% of all abortions) occurred every year between 2010 and 2014. The majority of unsafe abortions, or 97%, occurred in developing countries in Africa, Asia and Latin America (WHO, 2017).Worldwide, an estimated 44% of pregnancies were unintended in 2010–14. The unintended pregnancy rate declined by 30% in developed regions, whereas it only declined by 16% in developing regions (Bearak, Popinchalk, Alkema, & Sedgh, 2018).

A study carried out in India stated that an estimated 78% pregnancies are unplanned and 25% are definitely unwanted. The study also concluded that knowledge about the general features of EC is poor and misinformation is high among the adolescents; although the students generally have positive attitudes regarding EC, most of them believe that EC are unsafe for its users (Relwani, 2012).Unintended pregnancy, teenage pregnancy, induced abortive procedure with its complications are some of the common reproductive health problems affecting millions of the females globally, counted as some of the leading causes of maternal mortality and morbidity, the proportion of which is subsequently high in South Asian countries (Dahal, 2017). Among women who had an abortion in the 5 years preceding the survey, half of the women reported that they did not want more children, while 12% said that they wanted to delay childbearing (National Demographic and Health Survey, 2016). Sixty-two percent of unintended pregnancies in Nepal ended in abortion(Puri et al., 2016).A study carried out in Ilorin, Nigeria showed that only 27.8% of the respondents had good knowledge of EC. Majority of those who had ever used EC (85.7%) used it incorrectly, using it more than 72 hours after sexual intercourse. It concluded that knowledge about EC and prevalence of its use was low. Contraceptive education should be introduced early in the school curriculum for adolescents(Babatunde et al., 2016).

A Study among youths of Parbat district, Nepal, shows awareness of EC was only 47%. despite of inadequate knowledge, attitude was found favorable. Age, sex, education and friends using EC were associated with knowledge and attitude (Subedi, 2012). An anther study showed that only about two-thirds of college students (68%) had ever heard about EC. (Adhikari, 2009).Proper knowledge regarding ECPs should be given so that youth can prevent

themselves from sexually risk behavior and its consequences (Dahal, 2017). Information on knowledge, attitude and practice of emergency contraceptives among adolescents is particularly important because of high rates of unprotected sexual intercourse, teenage and unwanted pregnancies. But the adequate knowledge regarding EC is low among adolescents. If the adolescents are made aware about the available emergency contraception, the rate of unintended/unplanned pregnancy can be reduced. The prevalence of unprotected sexual intercourse, teenage pregnancy and its consequences are increasing globally, including Nepal. Although the attitude towards EC seems positive but the awareness regarding the EC, its importance, indications and correct period for its use among adolescents seems very low according to the above literatures. In Nepal, only a few surveys have been conducted regarding knowledge of the use of ECP. The objectives of this study was to assess awareness and attitude towards emergency contraception among higher secondary level students.

Research Method

This study utilized descriptive cross-sectional survey design of quantitative research. Only self-reported primary data were used to draw out the inferences of the study. The population of the study grade XI & XII students of education stream of Manmohan Secondary School were selected purposively. The researcher visited college and took permission from authorized person of this college. There were total 308 students in both class. Out of total population, 105 sample students were randomly selected for the study by help of coordinator of this college. The researcher visited sample respondents, explained the nature of the study, and made a favorable environment for collecting data. A self-administered semi-structured questionnaire was used to collect data. After collecting the questionnaire, they were checked, edited, and coded for data entry and tabulation then they were tabulated, than necessary tables were prepared, analysis, and interpreted by using SPSS version 20 for window. Descriptive statistics like frequency, percentage, mean and standard deviation was used to describe the findings. Inferential statistics like chi-square test was used to determine the association of level of awareness with selected variables.

Results

Table 1. **Age, Sex, Ethnicity, Type of family and Family's Monthly Income of the Respondents**

n= 105

Characteristics	Frequency	Percent
Age in years		
16	31	29.5
17	43	41.0
18	28	26.6
19	2	1.9
20	1	1.0
Sex		
Male	43	41.0
Female	62	59.0
Ethnicity		
Chhetri	35	33.3
Brahmin	17	16.2
Janjati	51	48.5
Dalit	1	1.0
Madhesi	1	1.0
Type of family		
Nuclear	77	73.3
Joint	28	26.7

Mean age=17.02, SD= ±0.854

Table 1 shows highest proportion (41%) of the respondents were aged 17 years. Majority (59%) of the respondents were female. Almost half (48.6%) of the respondents were Janajati. Majority (73.3%) of the respondents were of nuclear family.

Table 2. **Educational Level, Educational Stream, Permanent Residence, Religion and Marital Status of the Respondents**
n= 105

Characteristics	Frequency	Percent
Educational level		
11	44	41.9
12	61	58.1
Educational stream		
Education	105	100.0
Religion		
Hinduism	85	81.0
Buddhism	18	17.1
Christianity	2	1.9
Marital status		
Married	1	1.0
Unmarried	104	99.0

Table 2 shows majority (58.1%) of the respondents were of grade 12. All respondents were of education stream. Most (81%) of the respondents were Hindu whereas none of them followed Islam religion. Almost all (99%) of the respondents were unmarried.

Table 3. **Respondent's Awareness regarding Meaning and Purpose of Emergency Contraception**
n= 105

Characteristics	Frequency	Percent
Meaning		
Contraception used to delay child birth	6	5.7
Contraception used before unprotected sexual contact to avoid unwanted pregnancy	54	51.5
Contraception used after unprotected sexual* contact to avoid unwanted pregnancy	39	37.1
Contraception used for abortion	6	5.7
Purpose		
For family planning purpose	22	21.0
For abortion	3	2.8
To avoid unwanted pregnancy*	66	62.9
To prevent sexually transmitted infection	14	13.3

***Correct answer**

Table 3 shows that only 37.1% of the respondents answered correctly about meaning of EC. Majority (62.9%) of the

respondents replied correctly about purpose of EC that they are contraceptives used to avoid unwanted pregnancy.

Table 4. **Respondent's Awareness regarding Indications of EC**

n= 105

Indications**	Frequency	Percent
To prevent pregnancy which is not planned*	85	81.0
When women become victim of rape*	35	33.3
In case of condom rupture, slippage or misuse*	23	21.9
To abort the baby	3	2.9
When women want to born baby faster	35	33.3
When other methods of family planning is not used*	43	41.0

**Multiple responses

*Correct answer

Table 4 illustrates most (81%) of the respondents stated that one of the indications of EC is to prevent pregnancy which is not planned whereas only less than one-forth (21.9%) replied in case of condom rupture, slippage or misuse is one of the indications.

Table 5. **Respondent's Awareness regarding Different Methods of ECs**

n= 105

Characteristics	Frequency	Percent
Copper T is used as emergency contraception method		
Yes	14	13.3
No	91	86.7
Oral contraceptive pills are used as emergency contraception method		
Yes	79	75.2
No	26	24.8
Different names of EC available in Nepal**		
ECON*	35	33.3
I pill*	69	65.7
Condom	63	60.0
Sangini sui	20	19.0
Copper T*	16	15.2
Don't know	16	15.2

** Multiple responses

*Correct answer

Table 5 reveals minority (13.3%) of the respondents were aware about Copper T whereas majority (75.2%) of the respondents was aware that oral contraceptive pills can be used as EC method. Majority (65.7%) of the respondents replied I pill as EC available in

Nepal whereas around one-third (33.3%) of the respondents were aware about ECON.

Table 6. **Respondent's Awareness regarding Most Acceptable Time for the Use of EC and Places Where ECs are Available**

n= 105

Characteristics	Frequency	Percent
Most acceptable time		
As soon as possible within 120 hours of unprotected sex*	83	79.0
After 120 hours of unprotected sex	9	8.6
Within one week	13	12.4
After 7 days	-	-
Places of availability of ECs**		
Medical shop*	84	80.0
Hospital *	73	69.5
Health post*	65	61.9
Primary Health Centre*	36	34.3
Private clinic*	42	40.0
Supermarket	5	4.8

*Correct answer

** Multiple responses

Table 6 shows that most (79%) of the respondents were aware about the most acceptable time for the use of EC. Most (80%) of the respondents replied that ECs are available at medical shop followed by hospital (69.5%) and health post (61.9%).

Table 7. **Respondent's Awareness regarding Side Effects of Emergency Contraceptive Pills**

n= 105

Side effects**	Frequency	Percent
Nausea and vomiting*	46	43.8
Headache and dizziness*	37	35.2
Breast pain*	12	11.4
Irregular vaginal bleeding*	29	27.6
Pain on hands and legs	7	6.7
Don't know	41	39.0

**Multiple responses

*Correct answer

Table 7 shows highest proportion (43.8%) of the respondents believed that nausea and vomiting is one of the side effects of EC. Only 11.4% were aware that breast pain is one of the side effects of EC. Thirty nine percent were not aware about the side effects.

Table 8. **Respondent's Awareness regarding Use, Prevention of Sexually Transmitted Diseases and Effectiveness of EC**

n= 105

Characteristics	Frequency	Percent
EC can prevent sexually transmitted diseases		
Yes	49	46.7
No	35	33.3
Don't know	21	20.0
EC can be used as regular method of family planning		
Yes	16	15.2
No	74	70.5
Don't know	15	14.3
ECs are 100% effective in preventing unwanted pregnancy		
Yes	31	29.5
No	74	70.5

Table 8 shows only around one-third (33.3%) of the respondents replied that sexually transmitted diseases cannot be prevented by ECs. Majority (70.5%) of the respondents answered EC cannot be used as regular method of family planning. Majority (70.5%) of the respondents were aware that EC is not 100% effective.

Table 9. **Respondent's Awareness regarding Working Mechanism and Availability of EC without Doctor's Prescription**

n=105

Characteristics	Frequency	Percent
Working mechanism		
Prevents ovulation*	32	30.5
Kills sperm	37	35.2
Does abortion	6	5.7
Increases blood pressure	2	1.9
Don't know	28	26.7
EC is available without doctor's prescription		
Yes	38	36.2
No	50	47.6
Don't know	17	16.2

*Correct answer

Table 9 shows that less than one-third (30.5%) of the respondents answered correctly that ECs work by preventing ovulation. Almost half (47.6%) of the respondents mentioned that doctor's prescription is not needed to get EC.

Table 10. **Source of Information from Where Respondents Heard of EC**

n= 105

Source of information**	**Frequency**	**Percent**
Radio	30	28.6
Television	42	40.0
Internet	52	49.5
Health personnel	14	13.3
Health facility	30	28.6
Newspaper/magazine	30	28.6
Friends	23	21.9
Family/relatives	17	16.2
Books	58	55.2

** Multiple responses

Table 10 illustrates that more than half (55.2%) of the respondents heard about EC from books followed by 49.5% from internet, 40% from television, 28.6% from health facility, radio and newspaper/magazine each.

Table 11. **Respondent's Attitude towards EC**

Statements	**SA no. (%)**	**A no. (%)**	**U no. (%)**	**D no. (%)**	**SD no. (%)**	**Mean ±S.D.**
I would use/ recommend emergency contraception to my friends or relatives if needed	34 (32.4)	48 (45.7)	9 (8.6)	12 (11.4)	2 (1.9)	3.95± 1.02264
Emergency contraceptive is safer for its user	14 (13.3)	46 (43.8)	29 (27.6)	14 (13.3)	2 (1.9)	3.53± 0.95138
Use of emergency contraception will discourage the regular use of barrier methods like condom##	8 (7.6)	23 (21.9)	24 (22.9)	41 (39)	9 (8.6)	3.20± 1.11023
Abortion is better than using emergency contraception##	8 (7.6)	6 (5.7)	5 (4.8)	45 (42.9)	41 (39)	4.00± 1.16850
Awareness program is needed to be promoted by government	69 (65.7)	32 (30.5)	1 (1)	2 (1.9)	1 (1)	4.58± 0.70412
Emergency contraception should be made available at any places including departmental store##	25 (23.8)	33 (31.4)	13 (12.4)	23 (21.9)	11 (10.5)	2.63± 1.33822
Information about emergency contraception is needed to be provided by educational institutions	66 (62.9)	35 (33.3)	4 (3.8)	-	-	4.59± 0.56662
Any reproductive aged women after the unprotected sex can use emergency contraception	27 (25.7)	44 (41.9)	25 (23.8)	7 (6.7)	2 (1.9)	3.82± 0.95532

n= 105

Keys: SA= strongly agree, A= Agree, U=Uncertain, D= Disagree and SD= strongly disagree

Table 11 presents majority (65.7%) of the respondents stated that awareness program is needed to be promoted by government. Majority (62.9%) of the respondents said that information about EC is needed to be provided by educational institutions. Highest proportion (42.9%) of the respondents disagreed that abortion is better than using EC. More than one-third (39%) of the respondents disagreed that use of emergency contraception will discourage the regular use of barrier methods like condom.

Table 12. **Respondent's Level of Awareness regarding EC**

Level of Awareness	Frequency	Percent
Low (< 50%)	50	47.6
Moderate (50-74%)	41	39.1
High (≥ 75%)	14	13.3
Total	105	100

Table 12 reveals that almost half (47.6%) of the respondents had low, 39.1% had moderate and 13.3% had high level of awareness regarding EC.

Discussion

The findings showed that highest proportions (41%) of the respondents were aged 17 years. Majority (59%) of the respondents were female. Almost half (48.6%) of the respondents were Janajati. Majority (73.3%) of the respondents were of nuclear family. Most (81%) of the respondents were Hindu. Almost all (99%) of the respondents were unmarried.

The present study showed 62.9% of the respondents mentioned that the purpose of EC is to avoid unwanted pregnancy. This finding is somewhat similar with the descriptive study conducted in Banepa, Nepal by Dahal(2017) among 131 students which reported that 54.2% of the respondents replied to avoid unwanted pregnancy as purpose of EC. The finding of the study revealed 21.9% of the respondents stated that one of the indications of the EC is in case of condom slippage, rupture or misuse. It is supported by similar study done in South Africa by (Girma, Ejeta, Dechasa, & Abdulkadir, 2015) among 280 respondents where 25.7% said EC can be used if condom ruptured during intercourse. On analyzing the respondent's awareness on whether oral contraceptive pills can be used as EC method, 75.2% mentioned it can be used as EC method. This finding is supported by similar study done in Chitwan, Nepal by (Thapa, Lopchan, & Mehta, 2015).

The present study showed that only 13.3% of the respondents were aware that Copper T can be used as EC method which is contrast with the study done by (Thapa et al., 2015) which illustrated that most of the respondents (84.3%) stated Copper -T can be used as EC and 23.4% of the respondents mentioned IUCD in similar study done by (Ayene, 2015) among 284 respondents. It may be due to different setting and sample size. But the finding is supported by descriptive study done in India by (Joseph et al., 2016) among 449 respondents which showed 18 % participants knew that IUCDs can be used as EC methods and study done in Ethiopia by

(Girma et al., 2015) showed 10.4% knew IUCD as EC method.

Regarding the names of EC methods available in Nepal, 33.3% and 65.7% mentioned ECON and I pill respectively. This finding is contrast with the similar study done by (Dahal, 2017) which reveals only 6.8% and 10.1% cited ECON and I pill respectively. It may be due to difference in study population and setting. This is also contrast with study done by (Thapa et al., 2015) which showed three quarter of respondents (73.5%) said e-con pill can be use for EC. This may be due to different sample size.

Regarding the side effects of EC, 39% of the respondents didn't know about the side effects. Similar finding was seen in study done by (Dahal, 2017) where 42.4% didn't know about it. Among those who knew about the side effects, highest proportion (43.8%) answered nausea and vomiting as one of the side effects followed by headache and dizziness (35.2%) and irregular vaginal bleeding (27.6%). This finding is inconsistent with finding of (Dahal, 2017) where irregular menstruation is mentioned by 43.2% followed by irregular bleeding (25.6%) and nausea and vomiting (23.7%). It may be due to different study population and sample size..

Most (80%) of the respondents replied that ECs are available at medical shop followed by hospital (69.5%) and health post (61.9%) which is not similar with the study of (Dahal, 2017) where 31% respondents mentioned pharmacy followed by health institution (21.1%) and hospital (17%). It may be due to different study population. The study showed that highest proportion (47.6%) of the respondents had low level of awareness which is supported by the study of (Thapa et al., 2015) where highest proportion (46.4%) of the respondents had poor awareness. It is also moderately consistent with the descriptive study of Relwani (2012) among 155 respondents where majority had poor awareness level (61.15%).

Regarding the attitude towards EC, 45.7% agreed that they would use EC if needed, 43.8% agreed EC is safer for its users and 39% disagreed that EC would discourage the regular use of condom. It is consistent with similar study done in India by (Kumar, Sharma, & Jain, 2012) among 600 respondents where 43.5% of the respondents agreed to use EC if needed, 42.5% agreed EC is safer for its users and 33% disagreed that EC would discourage the regular use of condom. Majority (62.9%) of the respondents strongly agreed that information about EC should be given by educational institution which is consistent with descriptive study of (Joseph et al., 2016) among 449 respondents where 68% agreed to the statement.

Almost half (47.8%) of the respondents agreed that awareness program is needed to be promoted by government which is consistent with the study of (Anand & Sukhlecha, 2016) where 47% of the respondents agreed to the statement. The findings of the study showed that almost all (97.1%) of the respondents had positive attitude towards EC, 1% had neutral and 1.9% had negative attitude. It is inconsistent with study of (Thapa et al., 2015) where 57.44% of the respondents had positive attitude, negative (28.40%) and neutral (14.16%). It is also contrast with descriptive study done by (Yemaneh et al., 2017) in Ethiopia among 380 respondents where 64.9% had positive attitude and 35.1% had negative attitude. It may be due to different study setting and population.

Conclusion

Based on the findings of the study it is concluded that higher secondary level students tends to have low awareness but positive attitude towards EC. The present study concluded that there is association between the gender of the respondents and level of awareness. Here, the male students tend to have higher awareness regarding EC than females. Besides, this study also concluded that awareness tends to influence the attitude of students towards EC.

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