

**KNOWLEDGE AND ATTITUDE ABOUT EMERGENCY
CONTRACEPTION: A STUDY OF ADOLESCENT GIRLS'
BODE HIGHER SECONDARY SCHOOL,
BODE, BHAKTAPUR**

A THESIS

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LETTER OF RECOMMENDATION

This dissertation entitled *Knowledge and Attitude about Emergency Contraception : A study of adolescent girls' Bode Higher Secondary School, Bode, Bhaktapur* has been prepared by Ms. Jyoti Maharjan under my supervision and guidance. She has conducted research in February 2016.

Therefore, I recommend this dissertation to the evaluation committee for its final approval.

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LETTER OF APPROVAL

This education committee has approved this dissertation entitled *Knowledge and Attitude about Emergency Contraception: A Study of adolescent girls' of Bode Higher Secondary School, Bode, Bhaktapur* submitted by Ms. Jyoti Maharjan for the Degree of Master of Arts in Sociology.

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ABBREVIATIONS

DHO	:	District Health Organization
DoHS	:	Directorate of Health Service
EC	:	Emergency Contraception
EE	:	Ethinylloestradiol
FP	:	Family Planning
IUD	:	Intrauterine Device
LNG	:	Levonorgestrel
MCH	:	Maternal Child Health
MOH	:	Ministry of Health
UN	:	United Nation
WHO	:	World Health Organization

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Emergency contraception (EC) refers to contraceptive to women to prevent an unwanted pregnancy following unprotected intercourse or contraceptive failure (e.g. condom breakage). Emergency contraception should not be used as a regular family planning method but should be used only in an emergency as a backup. ECP gives women a second chance to prevent any unplanned or unintended pregnancy (MoHP, FHD, 2010).

Emergency contraception is used after having unprotected sexual intercourse, failed contraception or after the incidence of rape. It is either a drug or device to protect a woman against an unwanted or unintended pregnancy. Emergency contraception should be introduced in the period after sexual intercourse had taken place, but before the occurrence of pregnancy. Emergency contraception can decrease the risk of an unwanted pregnancy by as many as 75, 0% to 89, and 0% if it is taken within 72 hours after engaging in unprotected sexual intercourse. It is considered to be reasonably effective if taken or inserted from 72 to 120 hours after unprotected sexual intercourse had taken place. As the name implies, emergency contraception should only be taken or inserted in cases of emergency and not be used as a regular contraceptive (Steyn & Mason, 2009:128).

Young women are generally aware of contemporary hormonal contraceptives, but they do not have adequate knowledge of its effects and appropriate use. Young people are sexually active and over the past years the initiation of sexual activity has started at an earlier age. Knowledge about means to protect themselves is often inadequate, resulting in unplanned and unwanted pregnancies (Roberts, Moodley & Esterhuizen, 2004:441).

Students in higher education are part of a significant high-risk group, as these young people find themselves at a stage where they start to discover their sexuality. They are no longer under parental guidance and they experience a feeling of freedom, and subsequently a feeling of independence. This feeling of independence often sets in at

an age when young people need to make important choices, and wrong choices often lead to unwanted and unplanned pregnancies. Students in higher education institutions are generally presumed to have a higher level of awareness about accessible methods of contraception and emergency contraception, but the request rate for the termination of pregnancies remains high among young adults, and especially among students in higher education. Due to this state of affairs, the researcher identified the need for a study to assess students' knowledge of contraception and emergency contraception (Roberts *et al.*, 2004:441).

According to Nepal Demographic and Health Survey (NDHS) 2006, 56% of the currently married women in Nepal do not use any form of family planning, despite their knowledge of modern contraceptive methods. Moreover, 25% of married women have an unmet need for family planning services (9% for spacing and 16% for limiting births). Many of Nepal's births are unwanted- women desire an average of 2.5 births, yet give birth to an average of 4.1 births, and many result in abortions.

In Nepal, from its inception in 1968, the origination that provided family planning and maternal and child health support through the Government sector in Nepal has undergone many changes. Until 1987, this organization was under the control of the Family Planning and Maternal and Child Health Project under a Board by the Minister of Health (MOH). As the MOH structure was recognized and all the vertical projects were integrated into the basic health services in 1987, the FP/MCH project was also converted into FP/MCH Division within the Ministry of Health. The Nepal Government reorganized the MOH again in 1993 and established the Directorate of Health Services (DoHS). The family health division was created in DoHS as a focal point for the Family Planning and Maternal Health Program in the country (MoHP, FHD, 2010).

The Family Health Division Has three sections: Family Health, Family Planning and Demography. The division, in its capacity as the focal of all family planning and maternal health care support, is responsible for implement policies, developing programs and coordinating all family planning and safe motherhood activities. Emergency contraception is also known as birth control, back up control, the morning pill and the brand name Plan B. The most commonly used emergency contraceptive method is Plan B.

There are main two methods available that can be used as emergency contraception. They are:

1. Oral contraceptives (birth combined pills and progestin only pills)
2. Intrauterine devices(IUDs)

In the mid 1960s a Dutch family planning pioneer, Dr. Ary Haspels first administered high doses of postcoital estrogen to a 13 year old rape victim, initiating what became the first standard regime for emergency use of steroidal hormones to prevent pregnancy. In 1970s, university student health services provider begins to prescribe diethylstilbestrol (DES) for postcoital contraception. Since mid 1970s, Canadian physician Dr. Albert Yuzep's research on high dose estrogen regimens utilizing available combined oral contraceptives products.

The Ministry of Health and Population and the government of Nepal introduce ECP in the National Family Planning program. In the first phase, the ECP program was implemented in three districts of Kathmandu valley (Kathmandu, Bhaktapur and Lalitpur) from August 2006 to December 2007 through collaboration with the Department of Health Services (DoHS), Family Health Division (FHD), National Health Training Centre (NHTC), and Nepal Fertility Care Center (NFCC) {Shrestha et.al. 2008}. In Nepal, where emergency contraception is available, it is important that women who need this service (Including those barrier method) should be aware of it and where they can easily obtain ready access is important because of the short time period after unprotected intercourse during which emergency contraception is likely to be effective.

1.2 Statement of the Problem

A survey was conducted in New Delhi by Arora and Mittal (2005), among 623 women to measure knowledge of different contraceptive methods including EC and the reasons for unintended pregnancy. More than 99% knew about most of the modern methods of contraception whereas only 37% knew about EC and none of them had ever used it. Contraceptive method failure led to unintended pregnancy in 39.1% of abortion seekers. Similarly, Nepal has high level of unintended pregnancies with approximately 33 percent among married women of reproductive age and

considerably a high ratio among young married women (15-24 years of age) in the country.

Unplanned and unwanted pregnancy is one of the leading causes of maternal mortality and morbidity in South Asia. It is assumed that most women with unwanted/unplanned pregnancies do not continue the pregnancy to the full-term and try to terminate it, often by traditional and harmful methods leading to serious health consequences. Despite the availability of a range of modern and effective contraceptives, unwanted and unplanned pregnancies continue to occur. Emergency contraception is a method to prevent pregnancy in women who have had unprotected sex or when birth control methods have failed.

Study suggests that 30-50% of all maternal morbidity and up to 50% of all maternal mortality in Nepal's hospital is attributes to complications of unsafe abortions. Emergency contraception reduces the number of being unwanted pregnancy, which can reduce the maternal mortality and morbidity due to the complications. In Nepal, unprotected intercourse is common and women often do not have control over their body of their sexuality. ECP could act as the necessary protection against preventing unwanted pregnancy, dangerous abortions and other detrimental consequences of having a mistimed or unwanted child. ECP is also appropriate for use among women in compromised situations. Such as those who have been raped, experienced misuse or failure of contraceptive methods, and those who have sex without an effective method of family planning (Shrestha et.al.,2008)

The global problem of adolescent pregnancy is common and has become a key public health concern for all. In order to reduce the rate of early child bearing; adolescents, their parents and community should be made more aware of the negative health, social and economic consequences of it. Such awareness could be created through social mobilization, information dissemination, sex education and communication campaigns. Each and every aspects of teenage pregnancy should ideally be dealt with carefully and sensibly to reduce the occurrence, complications and societal burden of this. Women likelihood of adopting preventing measure to unintended pregnancy is used of EC, which help to decrease induced abortion, maternal morbidity and mortality. This makes further promotion of reproductive health of women.

Unmarried teenagers tend to have unpredictable lifestyle that resolve around such issue as asserting their independence and gaining acceptance amongst their peers. Many adolescent have difficulty adjusting to this stage in their life, especially in coping with their sexuality. Although sexual activity may be infrequent, relationships are often temporary and multiple sexual partners are possible. In general contraception is either not used at all, or its use is irregular or incorrect. These all problems rise for the need of having a deep investigations and analysis of the practices of emergency contraception among adolescents.

Hence, the study has focused on following research questions:

1. How does the education of the parents help adolescents to utilize the emergency contraception?
2. How do the media and health related trainings affect on the knowledge of emergency contraceptive on adolescents?

1.3 Objectives of the Study

-) To assess students' knowledge about emergency contraception
-) To explore students' utilization of emergency contraception

1.4 Significance of the Study

Every year 20 million pregnancy takes place around world, 1/3 of them are unwanted pregnancies are terminated among those terminated pregnancies, 2 million unsafe abortions are performed worldwide. They results 80,000 maternal deaths and thousands hundreds of the disabilities. In Nepal, the national figure of the maternal mortality is 281/100,000 live birth. MMR in hospital and in community can be attributed to the complication of incomplete spontaneous abortion (Nepal Demography and Health Survey, 2006). Unprotected sexual intercourse may lead to unwanted pregnancy and unwanted pregnancy increase the number of induced or septic abortion is also one of the causes of infant mortality rate in Nepal. A large portion of adolescent, both married and unmarried are sexually active. For many reasons their contraceptive needs require special consideration.

In our society, marriage of adolescent is still widespread. These adolescent face many of the same issue as teenagers of the same age who are unmarried. In addition they are usually under pressure from their families and society to bear children soon after marriage, a practice which increases the risk of maternal and neonatal morbidity and mortality.

Although parents and adults would prefer unmarried adolescent not to be sexually active until they are able to appreciate the risk fully, often they do not wait. Adolescent, married or unmarried, face several potential problems in relation to their reproductive health.

Teenage pregnancy is a rising public health issue being faced by many countries globally. Because of their biological, psychological and social factors adolescents face many health risk and problem. Adolescents' may lack knowledge of, or access to, conventional methods of preventing pregnancy, as they may be too embarrassed or frightened to seek such information. Pregnancy is huge challenge for adolescents.

In Maternity Ward of hospital, there often teenage girls came with unsafe sexual intercourse and then unwanted pregnancy which is affecting their life very badly. Thus the knowledge about emergency contraception is very essential to prevent such situations. Hence, the study has been carried out to find the knowledge regarding emergency contraception among adolescents.

1.5 Operational Definition

Adolescent: Age group between 13 to 19 years.

Emergency contraception: contraception used after unprotected intercourse to prevent unwanted pregnancy.

Intra-uterine Device: A kind of emergency contraceptive method for adolescent girls used within 5 days of unprotected intercourse

Knowledge: Refers to the verbal response or understanding about contraception.

Pills: A kind of emergency contraceptive method used within 72 hours of unprotected intercourse.

Unwanted Pregnancy: Unwanted or undesirable pregnancy for adolescent girls.

1.6 Organization of the Study

This study is organized into five chapters. The first chapter deals with introduction, second with literature review, third with research methodology, fourth with data presentation and analysis and the fifth with summary, conclusion and recommendation respectively.

Chapter 1 deals with the background of the study, statement of the problem, objectives of the study, significance of study and organization of the study. Chapter 2 deals with the review of the literature from various books, journals, publications, and websites. Chapter 3 deals with the description of the study area and it gives explanation of the research design and procedures of the data generated, statistical tools used during the process, data presentation and limitation of the study.

Chapter 4 deals with the presentation and analysis of the data. This consists of demographic information, marital status, caste, religion, education of the parents, and occupation of the parents' knowledge of emergency contraception among adolescents.

Chapter 5 deals with the summary, conclusion and recommendations of the whole study.

CHAPTER II

LITERATURE REVIEW

This chapter provided an overview of the historical background of contraception in general.

International events that influenced reproductive health and legislation, as well as protocols that had an impact on family planning, were discussed. The incidence of unplanned pregnancies and the termination of pregnancies among students in higher education institutions were studied. This was followed by an overview of contraception methods available to males and females. Students' knowledge, attitudes, beliefs and use of contraception, including emergency contraception, were discussed in detail.

2.1 Related Literature Review

According to Steyn & Mason, (2009), in 1994 the International Conference on Population and Development (ICPD) was held in Cairo. The achievement of reproductive health became an important aspect of reproductive health rights. The following definition of reproductive health was endorsed by 165 nations. This definition was adapted from the WHO definition of health to suit a definition of reproductive health: 'Reproductive health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide if, when and how often to do so...'

The Abortion and Sterilization Act (RSA, 1975) held extremely limited criteria that made abortion unlawful or unavailable for women. In 1996 the Choice on Termination of Pregnancy Act (RSA, 1996) was published. It states that men and women have a right to be knowledgeable about family planning, as well as having access to secure, efficient, affordable and satisfactory methods of family planning of their own choice. This Act endorses the rights of reproduction and expands the choice

of freedom by granting every person the permission to have a termination of pregnancy in agreement with the individual's personal beliefs.

Forum of Women Law and Development (2003) stated that women in Kathmandu, Nepal suffer from one of the highest matter at maternal mortality in the world and Nepal suffers from the highest practice of unsafe abortion. 20% of MMR is responsible for approximately half of those maternal deaths due to lack of training of abortion services providing. Nepal is even far away from being able to supply for the specific health care needs of women such as abortion and emergency services central to a woman's reproductive health.

2.2 Overview of High Risk Age Group of Pregnancy

Students in higher education institutions are part of the significant high-risk group, as these young adults find themselves at a stage where they begin to discover their sexuality. They are free from parental guidance, which gives them a feeling of freedom, and in turn, cultivates a feeling of independence. This feeling of independence is often acquired at an early age when young people need to make important choices, some of which are not always to their advantage. This view is supported by Lefkowitz, Gillen, Shearer and Boone (2004:150) who point out that people start to explore their sexuality between 18 to 25 years, rather than during adolescence.

According to Roberts *et al.* (2004:441), students in higher education institutions are presumed to have a generally higher level of awareness of accessible methods of contraception and emergency contraception, but the request rate for the termination of pregnancy remains high among young adults, and especially among students in higher education. In other parts of the world the research of Kallipolitis *et al.* reported that young women's abortion rate was 1, 8% to 2, and 3% in their particular study (2003:147). They also mentioned that the abortion rate was 2, 5% for women in Norway aged between 20 and 24, and 2, 1% to 2, and 4% for women in the United States.

According to the WHO (2009) the following factors can be considered as risk factors for having an unplanned or unwanted pregnancy:

-) sexual intercourse without using any contraception;
-) a broken or damaged condom or a condom that has slipped off during sexual intercourse;
-) hormonal pills not taken or injections that have been missed;
-) displaced intrauterine device (IUD);
-) having sex during the menstruation period;
-) having sex while in the lactation period after the birth of a child;
-) faulty calendar method calculations;
-) vomiting within one hour after taking the regular contraceptive pill;
-) vomiting within three to four hours after taking the emergency contraceptive pill; and in case of sexual violence.

College women between 20 and 24 years of age show some of the highest rates of unplanned pregnancies because of not using any family planning method. A major problem pertaining to the prevention of unplanned pregnancies is the reality that many young women obtain contraception services only after the initiation of sexual activities. The research indicated that an unexpected pregnancy was the most general reason for the termination of pregnancy under the women in their study (Kallipolitis *et al.*, 2003: 148).

According to Adhikari Ramesh, (2009), awareness about EC among college level students is low. Health education initiatives should target such students as they are more likely to be sexually active. There is a need to educate students about EC, which can help to reduce unintended pregnancies, many of which result in unsafe abortion and take a large toll on women's health. Education about EC at college levels could benefit even out-of-college youth, because their friends often are students.

2.3 Awareness on Use of Emergency Contraception on Adolescents

Emergency contraception (EC) is a contraception administered after unprotected sex to prevent pregnancy. It is less effective than regular contraception. EC is intended for occasional of emergency use only and not as a regular contraception. There are various methods of EC. They include hormonal contraceptive pills {Combined Oral Contraceptive Pill (COCP) and Progestin Only Contraceptive Pill (POP)} and Intra

Uterine Contraceptive Devices (IUCD). Indications for the used or when there is contraceptive accident or misuse and in case of sexual assault. (JHPIEGO, 2009)

The risk of becoming pregnant depends on the day of women's cycle in relation to ovulation. Calculating the exact risk is best done using data in which only a single act of intercourse potentially could have led to conception. On the basis of 129 such cycles Wilcox et al. (1995) observed that the risk of pregnancy increased from 8% at 5 days before ovulation to 36% on the day of ovulation. Knowledge of emergency contraceptive has improved over the past decade among the adults and teenagers in the developed world, however it is most widely used a special method in the developing world.

James Russell et al (2001) concluded that public education media and campaign contributed to an increase in awareness and knowledge about emergency contraception. The proportion of women who knew pregnancy can be prevented after sex and who had heard of emergency contraceptive pill increased in both the cities with paid advertising and the cities with only public service announcements. The fraction of women who knew there is a 72 hours time limit, however in Philadelphia and Seattle the cities where the media campaign placed extensive paid advertising in these cities the proportion of women who had heard of the emergency conception hotline also increased substantially.

Takkar, Goel, Saha and Dua (2005) conducted a cross sectional study among 258 women belonging to three categories: staff nurses, ministerial staff and others. Of the 190 married women, 154 (81%) practiced contraception; among them (73.3%) were regular users. 80 respondents underwent abortions of which 46 had spontaneous and 34 had induced abortions. Print and electronic media were the common source of public awareness in 149 subjects (57.7%). 29 women (11.2%) aware and only three women used emergency contraception.

Anna G, Lora G. (2002) studied Twenty mixed state secondary schools in Avon south west England. Among 1974 girls in year between 14-15 age. The portion of pupils knowing the correct time limits for both emergency contraception was significantly higher in the interaction group than in the control group at 6 months follow up survey done there.

2.4 Empirical Study

Keshakarzr et.al. (2002) stated that the 600 respondents were surveyed of whom 71% male, 29% female, 34% academic, 26% community and 33% resident physicians and 7% nurse practitioners and physician assistants. Many respondents (88%) were in line after to emergency contraception to those sexually assaulted by unknown assailants. More practitioners said they were willing to offer emergency contraception.

Cynthia et.al. (2003), male partners were on average 2 years older than their female partners but age difference was not associated with emergency contraception use for decision making 70% or women reported both partners decided on important matters, 22% reported the female decided and 8% reported the male decided. However, in those cases in which the male partner had the final say.

Michael et al. (2003) concluded that the women who are aware of emergency contraception fewer the half had received their information of the method from trained health providers 32% from doctors, 13% from pharmacists, 5% from nurse. However 33% had received their information about emergency contraception from their boyfriends and 14% from the medical dealers.

Niue E. et.al. (1999) concluded that no extent policy or services guidelines address the method specially. Although revision to several documents were planned yet policy makers felt that expanding access to emergency contraception would require dew over policy changes as much of the guidelines for oral contraception is already board enough to cover this alternative use of those same commodities. Participants is all parts of the study generally supported expanded access to emergency contraception in Kenya. They did however want additional detailed information particularly about health effects. They also differed over exactly who should have effects. They also differed over exactly who have access to emergency contraception and how it should be provided.

Chandigarh (Sep 2004-Oct 2005), the study was done in undergraduate and graduate of students of different colleges (total 1017 students). Knowledge of emergency contraception was found in 70% of students in comparison to regular contraceptive methods, 507 (49.9%). The main source of information was health professionals was

37.8 followed by friends 24.3%. Other source of information was media 24.3% and books 4.1%. The awareness of different types of an emergency contraceptive was less in the subjects. Most 73% of them were aware of emergency contraception as being pills only 14.9% knew about IUD as emergency contraception. Also exact time to use was not known by most of them.

Harper, Cheong, Rocca, Darnley and Wynn (2005) gave emergency contraception may be an important component of efforts to lower unintended pregnancy rates among, recent research in California has shown that when teenagers have increased access to EC, they are more likely to use it than older women whereas more than two thirds of women had heard of a method to prevent pregnancy after unprotected intercourse, few women could identify.

Finer and Henshaw (2006), stated that despite its potential to prevent unintended pregnancy, knowledge and utilization of EC among a woman in the US is not widespread. A national survey conducted in 2003 found although this study demonstrates that older women are not as informed about EC as they might be, it is encouraging that younger women demonstrated tremendous gains in EC knowledge in recent years. Nationally, rates of unintended pregnancy are high among young women, particularly those under age.

A cross-sectional study was conducted in Jimma University main campus in 2009. A total of 389 (96.5%) volunteered graduating female students participated in the study. One hundred sixty three (41.9%) were ever heard of Emergency Contraceptive, only 11(6.8%) used the method. The common sources of information were friends 60 (36.5%), radio 37 (22.8%) and television 20 (12.3%). One hundred sixteen (71.2%) agreed to use Emergency Contraceptive when they practice unintended sexual intercourse. Awareness and use of emergency contraception among graduating female students of Jimma University was low. There is a need to educate adolescents about emergency contraceptives, with emphasis on available methods and correct timing of use (Tajure Nasir, Pharm B. 2010).

According to figures from UN in 2006, there are more than 370 million couples worldwide who lack access to modern contraceptive service will increase by 49% by 2025. This is important as pregnancy is a major cause of death and disability among women around globe. There are approximately 201 million pregnancies globally per year and 80 millions of these are unplanned. About 6 lakhs women die every year as a result of pregnancy related illness. Children's health is also improved through parent's ability to control their fertility and space birth. Some contraceptive (barrier methods) also protect people from sexually transmitted infection including the HIV/AIDS.

2.5 Literature Related to Teenage Pregnancy

Worldwide about 16 million adolescent girls 15-19 give birth each year, roughly 11% of all births. Almost 95% of these births occur in developing countries. They range from about 2% in China to 18% in Latin America and the Caribbean. Half of all adolescent births occur in just seven countries: Brazil, Bangladesh, and the Democratic Republic of Congo, Ethiopia, Nigeria, India and the United States (Population Division 2008).

Emergency contraception pills (ECP) were incorporated into the National Medical Standards for Contraceptive Services and in the Clinical Protocols for Health Providers in Nepal in 2003. A national workshop on emergency contraception was organized by the Family Health Division (FHD) within the Ministry of Health in 2004, and technical assistance was provided by the FRONTIERS Program of the Population Council. Among many conclusions from the workshop, one recommendation was that ECP should be introduced through the government family planning program to assist in reducing unwanted pregnancies (Shrestha, Hussian & Khan, 2008).

According to UNFPA, 2013, out of 500 million adolescent girls in the developing world, more than 3 million of them aged 10-19 live in Nepal. Imagine 3 million adolescent girls are educated, healthy and happily enjoying their childhood in their homes, schools and public spaces. Adolescence is a crucial period of life and a vulnerable one: young girls and boys experience body changes, deepen their values, develop new relationships and start dreaming about their future. However, many harsh realities stand in the way of realizing the dreams of our adolescent girls such as

poverty of opportunities, gender discrimination and inequality, multiple forms of violence, abuse and exploitation, child labour, child marriage, adolescent pregnancy, deep rooted patriarchal norms and values, to name a few. Adolescent pregnancy is a key developmental issue. Adolescent girls under the age of 15 are up to five times more likely to die in childbirth than women in their 20s. pregnant mothers, if too young, are at high risk of dying while giving birth or suffering from complications, including obstetric fistula, and uterine prolapsed.

Naile and Sultan (2009) conducted cross-sectional study to indentify the knowledge and experience related to EC of 760 married women older than fifteen years in Turkey. 28.8% of the women had experienced unintended pregnancy, 26.8% of them have heard about EC methods and 9.1% of them had used an EC method. 93.2% of the women had no information about the time of use and 79.1% of them had no information about the efficiency of the methods. EC methods were used more frequently by women who were high school or higher educated, working, living in an urban area, and not having a child and women having experienced abortion or an unintended pregnancy.

According to 2001 UNICEF survey, in 10 out of 12 developed nations with available data, more than two thirds of young people have had sexual intercourse while still in their teens. In Denmark, Finland, Germany, Iceland, Norway, The United Kingdom and the United States, the proportion is over 80%. In Australia, the United Kingdom and the United States, approximately 25% of 15 year olds and 50% of 17 year olds have had sex. Save the children found that, annually 13 million children are born to women aged under 20 worldwide, more than 90% in developing countries. Complications of pregnancy and childbirth are the leading cause of mortality among women aged 15-19 in such areas of the world and it is mostly up to her whether or not she should reproduce. A woman has to see if they can deal with and the emotional changes win their life before having a baby.

CHAPTER III

RESEARCH METHODS

3.1 Research Design

This study has been carried out to find out the knowledge and attitude about emergency contraception among adolescent girls' of grade 11 and 12. In human research, a descriptive study can provide information about the naturally occurring health status, behavior, attitudes or other characteristics of a particular group. Descriptive study is usually the best methods for collecting information.

3.2 Rationale of the Selection of Study Area

In Nepal, students are taught subjects touching on health and population in school, including basic information on fertility, mortality, human reproductive organs, menstruation, and sexually transmitted infections including HIV/AIDS. Although the school or college health curriculum does not include EC, those students who had received reproductive health education in school/college were more likely to be aware of EC than were those who had not. This may be because teachers who teach reproductive health usually teach about risky sexual behavior, including the prevention of unwanted or unplanned pregnancies. Similarly these teachers usually teach the students about the emerging issues in reproductive health.

Knowledge of contraceptive methods was low in both public and private school students according to different studies. Most of the study (for examples, Adhikari Ramesh, (2009), results show that both underprivileged as well as high socioeconomic adolescents need to have adequate information about family planning to improve their knowledge and change their behavior. Awareness about EC among college level students is low. Health education initiatives should target such students as they are more likely to be sexually active. There is a need to educate students about EC, which can help to reduce unintended pregnancies, many of which result in unsafe abortion and take a large toll on women's health. Education about EC at college levels could benefit even out-of-college youth, because their friends often are students. Keeping this view in mind, the researcher chose Bode Higher Secondary School for

her study. As the Principal of this school was a known person for many years, the researcher found easy to do research on this topic at this school.

3.3 Universe and Sampling

The universe of the study comprises all the female students of grade 11 and 12 of Bode Higher Secondary School of Science faculty. There were 240 students including boys and girls in this faculty. Out of 240 total students, there were 100 girls, between 16-19 years of age, in 4 sections. The names of these 100 respondents at hand were written in small pieces of paper. The names of the participants were then thoroughly mixed in a bowl and shooked. Then, without looking, the researcher took out 50 names of the participants.

3.4 Nature and Sources of Data

This study has been generated both primary and secondary data for the completion of this study. Primary data were collected from respondents by administering questionnaires and secondary data were collected from published and unpublished literature such as books, journals, articles and research reports etc.

3.5 Data Collecting Tool and Technique

3.5.1 Questionnaire

A set of structured close ended questionnaire was developed to collect information from the respondents. The questionnaire deals with the purpose of getting information about demographic features and socio-economic background of adolescent girls'. Similarly, it also deals with the knowledge about emergency contraception of adolescent girls'. Questions were developed in English version. Formal consent was taken from the authorities of the school and verbal permission was taken from respondents before conducting survey. Objectives of the study were explained. Self-administered questionnaire was used during the period of data collection. Respondents were assured that all the information given during data collection was used only for academic purpose of investigator. After obtaining the data, respondents were made aware on the subject matter.

3.5.2 Validity and Reliability

Validity-

-) Instruments were developed after studying and reviewing related literature.
-) Consulted with experts, advisor and colleagues as appropriate for its validity.

Reliability-

-) The reliability of instrument was maintained by pre-testing the instrument among 10% of the total samples in similar situation to assess its accuracy and understanding.
-) Necessary modification was done after consulting advisor and expertise.

3.6 Data Analysis Interpretation

The researcher had collected data through self administered questionnaires. After completion of the data collection, data was checked for their completeness and accuracy and analyzed using simple descriptive statistics as appropriate. Similarly, data findings were presented through tabulation, pie charts, line and bar charts, average and percentage distribution.

3.7 Ethical Consideration

-) Formal permission from the related authority in school.
-) Verbal consent taken from respondents.
-) Privacy and confidentiality was maintained.

3.8 Limitations of the Study

-) This study was limited to Bode Higher Secondary School, Bode, Bhaktapur.
-) The sample size was only 50 respondents so findings of the study cannot be generalized in a large group.
-) Research time period was 2 weeks.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and interpretation of relevant data to answer specific questions of the study concerning knowledge of respondents regarding emergency contraception.

It was interpreted by using different tables, graphs and charts and obtained data were analyzed and interpreted on the basis of objective. The major findings of the study are presented in two parts.

- A. Demographic information
- B. Knowledge and attitude regarding emergency contraception

Scoring Procedure

If the respondents mention anyone correct answer then she will get one score for question having multiple answers. The score was given on the basis of answer sheet. If the respondent's answer meets any one of the answer sheet then she will score "1".

4.1 Demographic Information

4.1.1 Distribution of Respondents According to Age

Adolescence is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood. Information on age of each individual has been obtained from the adolescents of age group 16 to 19 years. Among these 100 respondents, 50 girls were selected for this study. Table 4.1 shows the age composition of the sampled population.

Table 4.1: Distribution of Respondents According to Age

Description	Frequency	Percentage (%)
16 years	5	10
17 years	20	40
18 years	15	30
19 year	10	20

Source: Field Study, 2016.

Table no. 4.1 shows the distribution of current population of the respondents of their age. For convenience, the ages of the sampled population have been categorized into four age groups. Students in the school were studying in eleven and twelve were 16 to 19 years. Out of 50 respondents 5 girls were 16 years, 20 girl students were 17 years, 15 girl students were 18 years and 10 girl students were 19 years of their age. By this data it is clear that all the respondents were below twenty years studying science. According to the NDHS data 7127 students are studying this subject (NDHS, 2013).

4.1.2 Distribution of Respondents According to Marital Status

Teen marriage is typically defined as the union of two people, one or both of them adolescents, joined in marriage from the age range of 13–19 years old. The following table describes the number of respondents' marital status.

Table 4.2: Distribution of Respondents According to Marital Status

Marital status	Frequency	Percentage
Married	5	10
Unmarried	45	90

Source: Field Study, 2016.

Table 4.2 shows that majority of the respondents 45(90%) are unmarried which can be taken as a positive symptom where as only 5(10%) respondents were married. Early marriage cannot be taken as positive symptom because it hampers personal development. After marriage woman has to perform household chores compulsory in our society. Though, it can be taken as development barriers on one's career. Above data shows that most of the adolescents studying + 2 at Bode Higher Secondary School are unmarried but some of them were married in early age. Early marriage

may be due to the lack of knowledge about marriage and its consequences one has to face after marriage. Lack of knowledge, education and traditional norms and believed descended from ancient time are another key factors of their early marriage.

4.1.3 Distribution of Respondents According to Ethnicity

Nepal is full of cultural diversity. Each caste and ethnic group has its own language, religion, culture and tradition. Newar caste is also main factor in this area and it plays an important role in social and religious activities.

Table 4.3: Distribution of Respondents According to Ethnicity

Caste	Frequency	Percentage
Newar	29	58
Bhramin/Chhetri	14	38
Others	7	14

Source: Field Study, 2016.

Nepalese community is heterogeneous; where multi-caste and ethnic people reside here. In Bode Higher Secondary School of Bhaktapur district incorporates multi-ethnic people. Above table 4.3 shows the combination of students and their caste/ethnicity. Most of the respondents in this school i.e. 29(58%) were from Newar community, 14(38%) were from Brahmin/ Chhetri family where as 7(14%) belongs from other ethnic groups such as Magar, Rai, Limbu, Tamang and many more. Bode community is a community where most of the Newars reside here. Though, in the school students from Newari community can be found. In this area, people from different places are migrated and their children are studying in this school.

4.1.4 Distribution of Respondents According to Religion

Nepal was a Hindu nation until 2005. After the major political change in the country, the interim parliament declared it as a religion neutral nation. Irrespective of this, Nepal has always been a place with religious harmony.

Table 4.4 Distribution of Respondents According to Religion

Religion	Frequency	Percentage (%)
Hindu	47	94
Others	3	6

Source: Field Study, 2016.

Table 4.4 shows the religious combination of the respondents studying Bode Higher Secondary School. According to the above table 47(94%) were Hindus and only 3(6%) of them were from other religion. It is noticeable fact that 81.34 percent people are residing here, the followers of Hindu religion (NDHS, 2013). Though its glimpse can be seen the study area. While comparing with national data, it can be noticed that more than national data people of Hinduism are residing here.

4.1.5 Distribution of Respondents According to Type of Family

There are two categories of the family structure: single and joint family. Nuclear family refers the family which consists of husband, wife and unmarried children. Joint family refers to the family which consists of husband, wife, unmarried and married children who share the kitchen for meal and reside under the same roof.

Table 4.5: Distribution of Respondents According to Type of Family

Description	Frequency	Percentage (%)
Nuclear	37	74
Joint	13	26

Source: Field Study, 2016.

Table 4.5 shows that 37(74%) live in nuclear family and 13(26%) live in joint family. Twenty first century is known as postmodern era. In this era individuals want to make their individuality and seek for their individual existence though the students were from nuclear family, whereas some of them were living their life in joint family. Due to the time being people's perception is being changing day by day as they prefer for nuclear family.

4.1.6 Distribution of Respondents According to Occupation of Father and Mother

Parental occupational status and maternal employment each had a distinct pattern of influences on educationally related aspects of the parent–child relationship. Adolescents are more likely to get pregnant if they have limited or no guidance from their parents. Many parents have busy lives that prevent them from providing the guidance and support that their young teenagers need to make good decisions on issues such as sex.

Table 4.6: Distribution of Respondents According to Occupation of Father and Mother

	Occupation	Frequency	Percentage
Father	Farming	36	72
	Office	7	14
	Labor	4	8
	Business	3	6
Mother	Farming	36	58
	Housewife	20	40
	Labor	1	2

Source: Field Study, 2016.

Table 4.6 shows that the occupational status of the father of the respondents. The highest number of the fathers 36(72%) are farmers. On the other hand, those who go to office are 7(14%), those who work as labors are 4(8%) in number and the least 3(6%) does their own business. This table also shows the majority of the mothers 36(58%) does farming. 20(40%) are housewife and only 1(2%) works as labor. This study shows the occupational status of the parents of adolescents studying at Bode Higher Secondary School. Being from agricultural society, most of the respondents are involved in faming or agricultural sector. Nepal as an agricultural country, most of its people dependent on agricultural activities. According to Nepal Living Standard Survey (NLSS, 2010/11) 25.16 percent are under poverty line and 82 percent people are dependent on agriculture. Being an agricultural country most of the people of

Nepal are engaged in agricultural related task, though majority of the people involved in agricultural sector can be seen in the above table.

4.1.7 Distribution of Respondents According to Education of Father and Mother

Parents' education is the key indicator for reforming society and upgrading the knowledge of the children and family's social status. The family plays an important and powerful role in the sexual socialization of children and adolescents. The information and messages that are or are not communicated between parents and children have the potential to shape sexual decision-making during adolescence.

Table 4.7: Distribution of Respondents According to Education of Father and Mother

	Education	Frequency	Percentage
Father	Illiterate	5	10
	Primary	24	48
	Secondary	18	36
	Intermediate	2	4
	Master	1	2
Mother	Illiterate	17	34
	Primary	25	50
	Secondary	7	14
	Intermediate	1	2

Source: Field Study, 2016.

Table 4.7 shows that most of the fathers 24(48%) had studied up to primary level. 18 (36%) has studied up to secondary level, 5(10%) of them are illiterate, 2(4%) of them had passed intermediate level and only 1(2%) of them had completed masters level. It indicates that the majority of the mothers 25(50%) had passed primary level. 17 (34%) mothers are illiterate, 7(14%) has passed secondary level, and only 1(2%) of them completed intermediate level. This study shows that only few parents had completed higher level of education. As parents' education plays important role to educate family. When the people get education, they get knowledge and practice about contraceptives. At the same time, people become able to avoid harmful socio-cultural norms and values. EC methods were used more frequently by parents who

had completed higher levels of education and living in urban area, and having experienced abortion for an unintended pregnancy. They are unable to give priority to health and education which is essential for human beings. It is said that without education and health human being turn themselves on brutal and savage as they could not take any determination.

4.1.8 Distribution of Respondents According to Residence

Knowledge of contraception varies widely, but most have knowledge of oral contraceptives. Contraception is higher in urban areas and in people with some secondary schooling.

Table 4.8: Distribution of Respondents According to Residence

Residence	Frequency	Percentage
Municipality	30	60
VDC	20	40

Source: Field Study, 2016.

Table 4.8 shows that majority of respondents that is 30(60%) live in municipality, and 20(40%) of them live in VDC. Knowledge of EC was independently associated with higher education, and living in an urban setting. Bode Higher Secondary School is situated in Bhaktapur municipality. Out of 50 respondents, 30 were permanent inhabitants of urban area and 20 of them were from remote area. By this data, it can be concluded that permanent inhabitants of urban area should have more knowledge about emergency contraceptive methods according to their availability sources of information such as television, radio/fm, and newspapers and so on. Comparative, VDC can be taken as less developed places, ultimately its inhabitants are less approach in sources of information though they have less knowledge about emergency contraceptives.

4.2 Knowledge about Emergency Contraception

4.2.1 Distribution of the Respondent Regarding Knowledge about the Function of Reproductive System

The reproductive system or genital system is a system of sex organs within an organism which work together for the purpose of sexual reproduction. The major function of the reproductive system is to make sure that the human species survives. This table shows the respondents knowledge about the function of the reproductive system.

Table 4.9: Distribution of the Respondent Regarding Knowledge about the Function of Reproductive System

Description	Frequency	Percentage (%)
Yes	40	80
No	10	20

Source: Field Study, 2016.

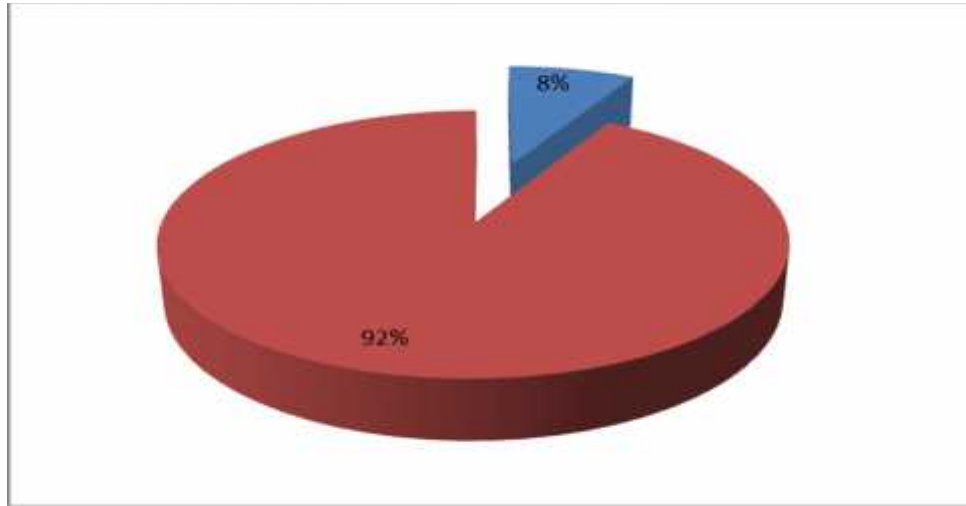
The above chart 4.9 shows that most of the respondents 40(80%) have knowledge about the function of the reproductive system. 10 (20%) respondents gave answer “no” about the function of the reproductive system. The majority of respondents stated that they have knowledge and information about the family planning methods so that they are practicing some methods which are available in the local health facility. Emergency contraception (EC) were incorporated into the National Medical Standards for Contraceptive Services and in the Clinical Protocols for Health Providers in Nepal in 2003. However, until recently, ECP was not included in actual service delivery and was not available through the government health facilities.

4.2.2 Distribution of Respondents who had heard about Emergency Contraception

Unintended pregnancy poses a major challenge to the reproductive health of young adults in developing countries. Among the various forms of contraception, emergency contraceptives are the only one that can be used after sexual intercourse, offering a

second chance to prevent unwanted pregnancy. This table shows the number of respondents who had heard about emergency contraception.

Figure 4.1: Distribution of Respondents who had Heard about Emergency Contraception



Source: Field Study, 2016.

Figure 4.1 indicates that 46 (92%) respondents had heard about emergency contraception before and 4(8%) respondents had not heard about it before. As given in the figure, out of the total respondents, 92 percent of the respondents were reported that they were heard about emergency contraceptive whereas 8 percent respondents were not known about emergency contraceptive. In comparison, it has been found that fewer respondents were unknown about emergency contraceptive. It is essential to know the emergency contraceptive, which help unwanted and unnecessary pregnancies. Teenage is that very flexible period which they have to face in anytime. Simple mistake can lead them towards their dark side though especially college students should know about the emergency contraceptive which effectively works until 72 hours of their physical intercourse. However, the positive point found in the study is that most of the respondents were conscious about the emergency contraceptive.

4.2.3 Distribution of the Respondents by source of information about emergency contraception

Friends and the media are an important source of EC information. Awareness and knowledge of EC should be increased. There is need to empower parents to discuss sexual and reproductive health with their children.

Table 4.10: Distribution of the Respondents by source of information about emergency contraception

Description	Frequency	Percentage (%)
Friends	2	4
Training	4	8
Magazines	2	4
Media	42	84

Source: Field Study, 2016.

Table 4.10 indicates that 2(4%) of respondents knew about emergency contraception from magazines, another 2(4%) heard about it from friends, 4(8%) heard from health personnel in trainings and maximum 42(84%) heard from media. This study shows that the most respondents had heard about EC from media, health personnel in trainings. These media like radio, TV, newspaper, internet are essential for sparing any information about health related topics. After analyzing the above data it can be said that media is being popular means of information among and between people for providing knowledge. After the restoration of democracy in Nepal, media sector has drastically changed. In the field of information media is playing vital role. In the study area too, most of the respondents were taken knowledge about emergency contraceptive from it.

4.2.4 Distribution of the Respondent Regarding Knowledge about Meaning of Emergency Contraception

Emergency Contraception (EC) refers to a group of birth control modalities that, when used after an unprotected intercourse within defined time limits, can prevent an unwanted pregnancy. This table describes the knowledge about meaning of emergency contraception among adolescents.

Table 4.11: Distribution of the Respondent Regarding Knowledge about Meaning of Emergency Contraception

Description	Frequency	Percentage (%)
Contraception used before unprotected sex	10	20
Contraception used for birth spacing	5	10
Contraception used after unprotected sex	30	60
Contraception used as a regular family planning method	5	10

Source: Field Study, 2016.

The above table 4.11 shows that 30 (60%) of the respondents gave the correct answer as EC is the contraception used after unprotected sex. 10(20%) of them answered that is used before unprotected sex, 5 (10%) said that it is used for birth spacing and 5(10%) said that it is used as a regular family planning method. Especially, teenagers who are in higher secondary school should be aware of contemporary hormonal contraceptives, but in the above data shows that they are not adequate knowledge of its effects and appropriate use which may lead them into the verge of unwanted pregnancy and health problems.

4.2.5 Distribution of the Respondent Regarding Knowledge about Indication of Emergency Contraception

Emergency contraception prevents about 85 per cent of pregnancies and does not replace regular contraception. Emergency contraception (EC) is a safe and effective method which is used to prevent unwanted pregnancy after unprotected sexual intercourse. Many of the unwanted pregnancies end in unsafe abortions.

Table 4.12: Distribution of the Respondent Regarding Knowledge about Indication of Emergency Contraception

Description	Frequency	Percentage (%)
Unprotected intercourse/rape case	22	44
Condom breakage/torn or expulsion of IUD	10	20
Forget to take oral contraceptive pills	8	16
Occurrence of sex when a couple does not want to have a baby	10	20

Source: Field Study, 2016.

Table 4.12 shows that the majority of the respondents 22(44%) knew that unprotected intercourse/rape case as the indication for emergency contraception. 10 (20%) of the respondents knew that condom breakage/torn or expulsion of IUD. 10(20%) gave answered that the indication of the EC is forgot to take oral contraceptive pills and 8 (16%) said the occurrence of sex when a couple does not want to have a baby as the indication for emergency contraception. Gender inequity and cultural norms often make it hard to address the issue of contraception for adolescents. By preventing adolescent pregnancy, EC can help avert the risks to the mother and child associated with early pregnancy and childbearing. Adolescent pregnancy can lead to serious social stigma and health consequences for both mother and child. The adverse social and economic consequences for an adolescent who becomes pregnant will depend on her particular marital, cultural, familial, and community situation. However, in many developing countries like Nepal, pregnancy severely limits an adolescent in pursuing education and in having broader economic opportunities in the future. Though students must know about the emergency contraceptive.

4.2.6 Distribution of Respondent’s Knowledge According to Availability of Emergency Contraception

Several emergency contraception options or EC were already available to us. EC pills are sold at pharmacy counters and sell under brand names like I-Pill. A Copper-T IUD is available at a health centers. It is available to anyone over the counter without a prescription or age restrictions

Table 4.13: Distribution of Respondent’s Knowledge According to Availability of Emergency Contraception

Category	Frequency	Percentage
Hospital	20	40
Medical Store	12	24
Health Post	18	36
Grocery shop	0	0

Source: Field Study, 2016.

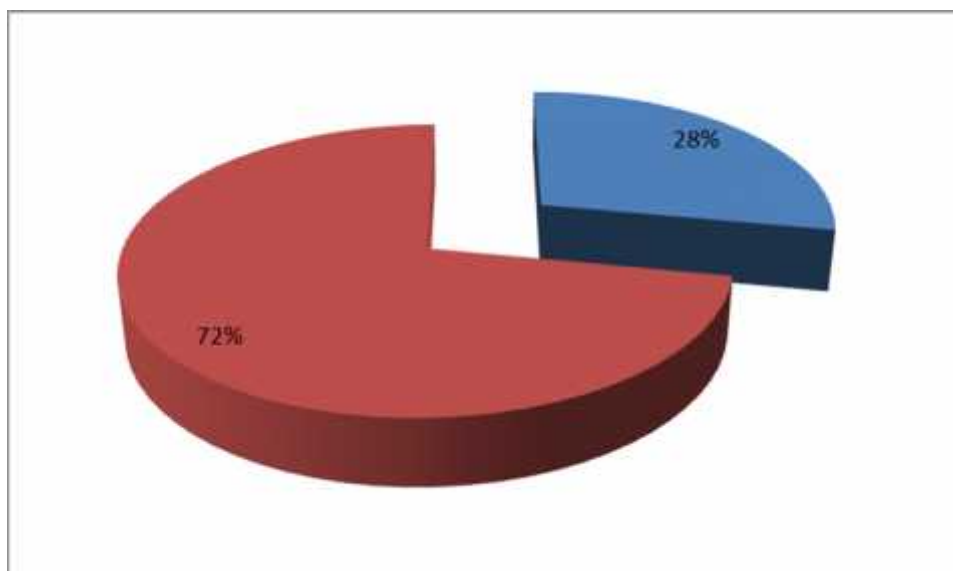
Table 4.13 reveals that 20(40%) of respondents knew that EC are available in hospital, 12(24%) said that it can be available in medical shop, and 18(36%) said that

it is available in Health post, and none of them said that it is available in grocery shop. Emergency contraception has become a widely accepted method of contraception, and ministry of health, government of Nepal has taken steps to increase women's access to it. However, substantial barriers remain for adolescents. To continue expanding availability of ECPs to adolescents and women as a whole, governments openly recognize ECPs as a safe, effective method of preventing pregnancy and strengthen their efforts to increase access.

4.2.7 Distribution of Respondent's Knowledge about Side Effect of Emergency Contraception

Emergency contraceptive pills have no long-term or serious side effects, and emergency contraception is safe for almost every woman to use. Emergency contraception may prevent pregnancy by temporarily blocking eggs from being released, by stopping fertilization, or by keeping a fertilized egg from becoming implanted in the uterus. Many girls who take emergency contraception pills experience side effects such as nausea, vomiting, breast tenderness, abdominal pain, headache, dizziness, and fatigue. Such side effects are usually minor, and most improve within 1 to 2 days.

Figure 4.2: Distribution of Respondent's Knowledge about Side Effect of Emergency Contraception



Source: Field Study, 2016.

Figure 4.2 indicates that 36(72%) of respondents did not know about side effect of emergency contraception and 14(28%) of respondents knew about it. The emergency contraceptive pills sometimes may cause nausea, vomiting, headaches, dizziness, cramping, fatigue, or breast tenderness. The pills also may cause irregular bleeding until a woman menstruates again, and menstruation may begin early or late. In the PATH (2004) study, about 20 percent of women taking the combined ECP experienced vomiting and 50 percent had nausea, compared to only 6 percent with vomiting and 20 percent with nausea among those taking the progestin-only pill.

4.2.8 Distribution of Respondents According to Their View about Types of Emergency Contraception

There are two types:

-) Emergency contraceptive pills (ECPs)
-) Intrauterine device (IUD) - The IUD is a small, T-shaped device placed into the uterus by a doctor within 5 days after having unprotected sex. Copper-T (intrauterine device) is another effective method to stop fertilisation. However, it is more viable in a married woman than an unmarried teenager.

Table 4.14: Distribution of Respondents According to Their View about Types of Emergency Contraception

n=50

Items	Frequency	Percentage
I-Pill/Nilocan	25	50
Condom	15	30
Copper-T/IUD	10	20
Others	0	0

Source: Field Study, 2016.

Table 4.14 indicates that the maximum numbers of respondents 25(50%) responded with the I-Pill or Nilocan as emergency contraceptive, 15(30%) of the respondents said condom as emergency contraceptive, 10(20%) of them knew Copper-T can be used as emergency contraception, and none of respondents do not know the other type of emergency contraception. The awareness of different types if an EC was less in

subjects. Most of them were aware of EC as being pills. By this data it seems that most of the respondents were in dilemma. They were not authentic knowledge about emergency contraceptive. Emergency contraceptive pills (ECPs) have become more 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 about and using ECPs

4.2.9 Distribution of Respondents According to Their Knowledge about Exact Time and Dose to Use I-Pill as Emergency Contraception

These methods of EC can be used up to five days after unprotected sex, they are most effective when used within 72 hours (three days). They work even better within 24 hours.

Table 4.15 Distribution of Respondents According to Their Knowledge about Exact Time and Dose to Use I-Pill as Emergency Contraception

n=50

Category	Frequency	Percentage
1 tablet within 24 hours of unprotected sex	5	10
2 tablets within 36 hours of unprotected sex	2	4
1 tablet within 72 hours of unprotected sex	7	14
Do not know	36	72

Source: Field Study, 2016.

This table 4.15 indicates that maximum number of respondents 36(72%) do not know the exact time frame to use I-Pill as emergency contraception and only 7(14%) of respondents knew when and how to use it. ECPs are oral contraceptive pills that a woman can take within 72 hours or more after unprotected intercourse to reduce her risk of becoming pregnant. They contain a higher dose of the same active ingredients that regular birth control pills contain. Recent research suggests the pills are also effective, though less so, if taken within 120 hours of unprotected intercourse (ICEC, 2000).

4.2.10 Distribution of Respondents According to Their Knowledge about Exact Time and Dose to Use Nilocon as Emergency Contraception

To prevent unwanted pregnancy after an abortion, reliable and correct use of contraceptives is essential. There are two types of oral contraceptive-monophasic and multiphasic. Nilocon tablets are monophasic pills. They are inexpensive and are also easily available. Four white pills of Nilocon as soon as possible after intercourse (within 120 hrs.).

Table 4.16: Distribution of Respondents According to Their Knowledge about Exact Time and Dose to Use Nilocon as Emergency Contraception

n=50

Category	Frequency	Percentage
1 tablet within 12 hours of unprotected intercourse	5	10
2 tablets within 24 hours of unprotected intercourse	1	2
4 tablets in first 72 hours and repeat 4 tablets again after 12 hours	10	20
Do not know	34	68

Source: Field Study, 2016.

Table 4.16 indicates that maximum respondents, that is 34(68%) did not know the exact time and dose of Nilocon to use as an emergency contraception and only 10(20%) of respondents knew how and when to use it as an emergency contraception. Female may use emergency contraception after sexual intercourse when no contraception is used, when a regular contraceptive method does not work properly (as when a condom breaks or slips, or a daily oral contraceptive is missed), or if a woman is sexually assaulted.

4.2.11 Distribution of Respondent's Knowledge about the Exact Time of the Use of Copper-T as Emergency Contraception

The Copper-T is an intrauterine device (IUD) that some women use for regular birth control, but with the help of a doctor or other trained clinician it can be inserted up to five days after sex to prevent pregnancy. As emergency contraception, the Copper-T IUD is much more effective than either type of emergency contraceptive pill (or

“morning after pill”) because it reduces the risk of getting pregnant by more than 99%. Another advantage to the Copper-T IUD is that it can be kept in place to prevent pregnancy for up to ten years.

Table 4.17: Distribution of Respondent’s Knowledge about the Exact Time of the Use of Copper-T as Emergency Contraception

n=50		
Category	Frequency	Percentage
Within 1 day of unprotected sex	3	6
Within 3 days of unprotected sex	-	-
Within 5 days of unprotected sex	1	2
Do not know	46	92

Source: Field Study, 2016.

Table 4.17 shows that the maximum percentage 46(92%) of respondents did not know that Copper-T can be used as emergency contraception and only 1(2%) of them knew it. Of the respondents who know about Copper-T contraception, 3(6%) knew to use it within 1 day of unprotected intercourse. Among and between the respondents knowledge about the appropriate use of Copper-T as an EC was found poor. Health education initiatives should target such students and make them aware about the use of emergency contraceptives as they are more likely to be sexually active in this age. They should be given especially classes in the schools too, which can help to reduce unintended pregnancies. Apt education about emergency contraceptive at college levels could benefit.

4.2.12 Distribution of Respondent’s According to Their Knowledge about the Place for Availability of Copper-T as an Emergency Contraception

Globally, the IUD is the most widely used method of reversible birth control. Insertion of the copper IUD should also be performed by a qualified medical practitioner.

Table 4.18: Distribution of Respondent's According to Their Knowledge about the Place for Availability of Copper-T as an Emergency Contraception

n=50

Category	Frequency	Percentage
Hospital	35	70
Health post	6	12
Medical Shop	0	0
Do not know	9	18

Source: Field Study, 2016.

Table 4.18 reveals that 35(70%) of respondents knew that Copper-T can be available in hospital, 6(12%) of respondents answered that it can be available in health posts and 9(18%) of respondents do not know about it. None of them answered that it is available in medical shops. Emergency contraception has become a widely accepted method of contraception, and government of Nepal has taken steps to increase women's access to it. Nepalese society is close society regarding sex and sex education. Therefore, substantial barriers remain for adolescents to talk openly about contraceptives therefore most of adolescents do not know about the availability of ECs. To continue expanding availability of ECPs to adolescents' government should provide authentic knowledge and explicitly formulate the policy especially for adolescents that ECPs as a safe, effective method of preventing unwanted pregnancy. It is recommended that, government agencies should be mobilize to make easy access on emergency contraceptive and strengthen their efforts to increase access on.

4.3 Attitude of Respondents Regarding Emergency Contraception

There were 7 statements used to assess the adolescent girls' attitude towards emergency contraception. The statement was based on likert scales. In which there were three categories such as Agree, Neutral, Disagree to access the attitude of the adolescents of Bode Higher Secondary School, Bode, Bhaktapur.

Table 4.19: Attitude of Respondents Regarding Emergency Contraception**(n=50)**

S. No.	Opinions	Agree (%)	Neutral (%)	Disagree (%)
1.	If I have unintended sexual intercourse, I would use ECPs.	70	17	13
2.	If a close friend or relative have unintended sexual inter course, I would advice her to use ECPs.	63	18	19
3.	Wide spread use of ECPs will increase the prevalence of HIV/AIDS and other STIs.	76	16	8
4.	Emergency contraception promotes promiscuity.	40	26	36
5.	Emergency contraception is one way of abortion.	36	14	50
6.	I don't want to use ECPs for fear of side effects.	30	20	50
7.	Emergency contraception will affect ongoing regular methods of contraception negatively.	23	25	52

Source: Field Study, 2016.

Our finding showed that 70% of the respondents who knew about EC believed that they would use EC after unprotected sexual intercourse and 63% of them agreed to advice friends or relatives to take emergency contraceptives after unprotected sexual intercourse. 76% of respondents replied to agree with increment of prevalence of HIV/AIDS and other STIs when ECs use in the society increases. These includes wide spread use of ECs will increase the prevalence of HIV/AIDS and other STIs. Worries with use of ECs included, ECs will promote promiscuity 40%. ECs will affect ongoing regular methods of contraception negatively 23% and fear of side effects in using ECs 50%.

However, a considerable proportion of respondents reported their fear on using EC and misconception. Emergency contraception promotes promiscuity, and emergency contraception will affect regular methods of contraception negatively. The possible reason for low EC practice rate in this study could be lack of awareness of the place where it is available, lack of correct information, low promotion and availability of the methods in most health institutions. Lack of knowledge among adolescents is a

problem, negative attitudes toward ECPs poses can be taken as a problematic among the students. Nepalese cultural norms are found to be barriers about the full flex discussion about sex and sex education. Emergency contraception is defined as any methods used after sexual intercourse or a contraceptive accident to prevent an unwanted pregnancy. It is not an abortion method. Some of the respondents were either neutral or disagree about the use of emergency contraceptives after unintended intercourse. This attitude of the respondents shows the actual situation of the respondents. Still in Nepalese society emergency contraceptives taken as ill practice. Low social status of women, negative attitudes towards abortion, lack of knowledge, fear, shame, and limited access to health care services continue to drive women to seek abortions outside of the health system, putting themselves at risk for infections and possibly death. Women in Nepal practice many ineffective harmful and non-harmful methods and procedures following unprotected intercourse to safeguard themselves from unwanted pregnancies (CREHPA 2004). These methods include oral intake of both edible and non-edible items like herbs, fruits, vegetables and harmful items like glass powder, and raw Vermillion powder. Women also perform physical activities such as getting up immediately after intercourse and walking, husband kicking wife from behind, pressing abdomen with stone grinder, squatting, massaging, urinating immediately after intercourse, etc.

CHAPTER V

DISCUSSION, SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

Unwanted pregnancy leading to unsafe abortion is a global health problem. Despite the increasing use of contraception, unplanned pregnancies are common all over the world including Nepal. Adolescent girls' with good knowledge about emergency contraception can reduce the unwanted pregnancy and induced abortions and thereby reducing the maternal mortality and morbidity. Hence the study was carried out to assess the knowledge and attitude of adolescent girls' regarding emergency contraception.

The study was conducted to assess the knowledge of adolescent girls' regarding emergency contraception. The data was collected from 50 respondents who were studying at grade 11 and 12 at Bode Higher Secondary School in Bode, Bhaktapur.

This chapter deals with the major findings of the study, conclusion, implications and recommendation for study. Besides these the strengths and limitations of the study difficulties faced during study and plan for dissemination have also been enclosed in this chapter. Major finding are as follows:

The majority of respondents i.e. 20(40%) are of 17 years of age. The majority of the respondents 45(90%) are unmarried and only 5(10%) respondents are married. Majority of respondents 47(94%) are Hindus. Most of the respondents 29(58%) belongs to Newar community. 14(38%) belongs to Brahmin/ Chhetri family, and 7(14%) belongs from other ethnic groups. 37(74%) of the respondents live in nuclear family and 13(26%) live in joint family. The highest number of the fathers of the respondents 36(72%) are farmers. The majority of the mothers 36(58%) does farming. Most of the fathers 24(48%) had studied up to primary level. The majority of the mothers 25(50%) had passed primary level. Majority of respondents 30(60%) live in municipality.

Majority of respondents 46(92%) had heard about emergency contraception before. Majority of respondents 42(84%) answered that they got information on emergency contraception from media. Most of the respondents 40(80%) have knowledge about

the function of the reproductive system. 30 (60%) of the respondents gave the correct answer as EC is the contraception used after unprotected sex. The majority of the respondents 22(44%) knew that unprotected intercourse/rape case as the indication for emergency contraception. 36(72%) of respondents did not know about side effect of emergency contraception and 14(28%) of respondents knew about it.

The maximum respondents 20(40%) knew that EC are available in hospital. The maximum numbers of respondents 25(50%) responded with the I-Pill or Nilocan as emergency contraceptive, 15(30%) of the respondents said condom as emergency contraceptive, 10(20%) of them knew Copper-T can be used as emergency contraception. Maximum number of respondents 36(72%) do not know the exact time frame to use I-Pill as emergency contraception. Maximum respondents, that is 34(68%) did not know the exact time and dose of Nilocan to use as an emergency contraception.

The maximum percentage 46(92%) of respondents did not know that Copper-T can be used as emergency contraception. Majority of respondents 35(70%) of respondents knew that Copper-T can be available in hospital.

Our finding showed that 70% of the respondents who knew about EC believed that they would use EC after unprotected sexual intercourse and 63% of them agreed to advice friends or relatives to take emergency contraceptives after unprotected sexual intercourse. (76%) of respondents replied to agree with increment of prevalence of HIV/AIDS and other STIs when ECs use in the society increases. These includes wide spread use of ECs will increase the prevalence of HIV/AIDS and other STIs. Worries with use of ECs included, ECs will promote promiscuity 40%. ECs will affect ongoing regular methods of contraception negatively 23% and fear of side effects in using ECs 50%. However, a considerable proportion of respondents reported their fear on using EC and misconception. Emergency contraception promotes promiscuity, and emergency contraception will affect regular methods of contraception negatively. The possible reason for low EC practice rate in this study could be lack of awareness of the place where it is available, lack of correct information, low promotion and availability of the methods in most health institutions.

5.2 Conclusion

The study has given general view about the knowledge of adolescents' on the studied topic. It revealed that the most of the respondents had heard about EC from media,

health personnel in trainings. These media like radio, TV, newspaper, internet are essential for sparing any information about health related topics. Only few parents had completed higher level of education. The educational level is significantly associated with the knowledge on EC.

In conclusion, this study shows that the awareness of EC among adolescents was inadequate. Even among those who were aware, the detail knowledge of EC was very low. There is a need to educate adolescents about EC with emphasis on available methods and correct timing of use. There should be promotion of EC to enhance their use and making them easily accessible in hospitals and pharmacies.

5.3 Recommendations

-) This study was based on small sample and is not sufficient to represent the overall status of adolescents throughout the country regarding knowledge and attitude of EC. So, further research on this topic can be done on large scale on other similar settings.
-) Comparative study on this topic can be done between different educational institutions.
-) Comparative study on this topic can be done between male and female adolescents
-) Further education is needed on this topic for adolescents.
-) Media can play an important role to improve knowledge on EC, so awareness programme should be launched by government and NGO/INGO through media.

5.4 Strength of the Study

-) The study aimed to explore the actual knowledge of adolescents on emergency contraception.
-) The interaction during research conducted time gave the researcher more confidence to conduct further research.
-) The study has helped to gain more knowledge about emergency contraception.
-) The questionnaire items were based on the literature, books and journals.

5.5 Difficulties Faced during the Study

-) Researcher found difficult to control the respondents during the data collection time.

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Appendices
TRIBHUVAN UNIVERSITY
CENTRAL DEPARTMENT OF SOCIOLOGY
KIRTIPUR, KATHMANDU, NEPAL

Research Questionnaire

Topic: Knowledge and Attitude about Emergency Contraception (A study of adolescent girls' Bode Higher Secondary School, Bode, Bhaktapur)

Objective: To assess the knowledge about emergency contraception.

Part I

Knowledge related questionnaires:

Personal Information

1. Age _____
2. Marital status
 - a) Married
 - b) Unmarried
3. Ethnicity
 - a) Brahmin
 - b) Chhetri
 - c) Newar
 - d) Others
4. Religion
 - a) Hindu
 - b) Muslim
 - c) Christian
 - d) Others
5. Type of family
 - a) Nuclear
 - b) Joint
6. Occupation of Father _____
7. Occupation of Mother _____
8. Education of Father _____
9. Education of Mother _____
10. Residence
 - a) Municipality
 - b) VDC

Part II

1. Do you know the function of the reproductive system?
 - a) Yes
 - b) No

2. Do you know how the pregnancy occurs?
 - a) By kissing
 - b) By Hugging
 - c) By sexual contact
 - d) By touching each other

3. Have you ever heard about emergency contraception?
 - a) Yes
 - b) No

4. If yes, what is the main source of it?
 - a. Media
 - b. Friends
 - c. Magazines
 - d. Training

5. What do you mean by emergency contraception?
 - a. Contraception used before unprotected sex
 - b. Contraception used for birth spacing
 - c. Contraception used after unprotected sex
 - d. Contraception used as a regular family planning method

6. Do you know the name of emergency contraception available in Nepal?
 - a) Yes
 - b) No

7. If yes, what are they?
 - a) Oral pills(Nilocan)/ I-Pill
 - b) Condom
 - c) Intrauterine device(IUD)
 - d) Others

- 8.

What are the indications of using emergency contraception?

- a) Unprotected intercourse/ rape case
- b) Condom breakage/ torn or expulsion of IUD
- c) Forget to take oral contraceptive pills
- d) Occurrence of sex when a couple does not want to have baby

9. If someone is using oral pills (Nilocan) as emergency contraception, how to use it?

- a) Take 1 tablet within 12 hours of unprotected intercourse
- b) Take 2 tablets within 24 hours of unprotected intercourse
- c) Take 4 tablets within 72 hours and 4 tablets again after 12 hours
- d) Do not know

10. Suppose if someone is taking I-Pill as emergency contraception when and how it should be taken?

- a) Take 1 tablet within 12 hours of unprotected intercourse
- b) Take 2 tablets within 36 hours of unprotected intercourse
- c) Take 1 tablet within 72 hours of unprotected intercourse
- d) Do not know

11. From where can you get emergency pills?

- a. Hospital
- b. Health post
- c. Medical shop
- d. Grocery shop

12. If intrauterine device (Copper-T) is using as emergency contraceptive then when it should be used?

- a) Within 1 day of unprotected intercourse
- b) Within 2 days of unprotected intercourse
- c) Within 5 days of unprotected intercourse
- d) Do not know

13.

From where can Copper-T be available as emergency contraception?

- a) Hospital
- b) Medical shop
- c) Health post
- d) Do not know

14. Do you know the side effect of emergency contraceptive device?

- a) Yes
- b) No

15. If yes, which of these are the side effects of it?

- a) Headache/Nausea
- b) Stomach ache
- c) Tenderness of breast
- d) Fever

16. Does emergency contraceptive can be used as a regular method of family planning?

- a) Yes
- b) No

17. Did any of your family members have used emergency contraception before?

- a) Yes
- b) No

18. If yes, which one?

- a) Pills
- b) I-Pill
- c) Copper-T

19. Have you ever used emergency contraception before?

- a) Yes
- b) No

20. If yes, which one?

- a) Pills
- b) I-Pill
- c) Copper-T

PART III

Attitude Related Questionnaires

S. No.	Opinions	Agree (%)	Neutral (%)	Disagree (%)
1.	If I have unintended sexual intercourse, I would use ECPs.			
2.	If a close friend or relative have unintended sexual inter course, I would advise her to use ECPs.			
3.	Wide spread use of ECPs will increase the prevalence of HIV/AIDS and other STIs.			
4.	Emergency contraception promotes promiscuity.			
5.	Emergency contraception is one way of abortion.			
6.	I don't want to use ECPs for fear of side effects.			
7.	Emergency contraception will affect ongoing regular methods of contraception negatively.			