CHAPTER ONE

INTRODUCTION

1.1 Background to the study

According to the definition of the World Health Organization (WHO), "Emergency Contraceptive (EC) is a method of preventing pregnancy within a few hours or a few days after unprotected sexual intercourse" (WHO, 1998). In Nepal, EC could play a critical role in reducing unintended pregnancies but very few people are aware of it. EC is a method that can be used by women to prevent pregnancy after an unprotected intercourse or contraceptive failure. Methods that are currently available in the system such as oral pills (Emergency contraceptive pills), Intra Uterine Device (IUD), E-con can be used as an emergency method by women who are exposed to sex without any contraceptive protection or where contraceptive have failed such as condom rupture, missing a pill, dislodged IUD etc.

According to NDHS 2011, Contraceptive prevalence rate has risen from 3 percent in 1976 to 48 percent by 2006 and increased to 50 percent in 2011. Total fertility rate showed an unprecedented decline of one child per woman in five years (TFR declined from 4.1 in 2001 to 3.1 in 2006) and it further decreases to 2.6 in 2011. However, unmet need for contraceptive method still remains at 27 percent with 10 percent having an unmet need for spacing and 17 percent having an unmet need for limiting (Ministry of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012).

Maternal Mortality Ratio (MMR) has declined remarkably in the last ten years from 539 per 100,000 live births in 1996 to 281 in 2006. In Nepal, despite the legalization of abortion, many women still fall prey to unsafe abortion practices and put themselves in high risks of maternal mortality and morbidity. The majority of pregnancies (85 percent) end in a live birth. Eight percent of pregnancies are aborted, 7 percent resulted in a miscarriage, and a very small proportion end up as stillbirths (1%). Abortions are proportionately higher among women age 20 and above (Ministry

of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012).

The period between initiation of sexual intercourse and marriage is often a time of sexual experimentation. Between 2006 and 2011, the percentage of never married young men who had sexual intercourse during the 12 months preceding the survey increased from 8 percent to 15 percent. Among never-married, sexually active young men, 73 percent used a condom during their last sexual intercourse (Ministry of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012).

Many situations such as unprotected sex, improper use of regular contraceptives, failure of barrier methods, sexual violence, etc. lead to unwanted pregnancy. In all such cases EC gives one last chance to women to protect themselves from unwanted pregnancy. This could also help in reducing the need for abortion and thereby abortion complications and maternal deaths. Emergency Contraceptive Pills contain increased doses of regular contraceptive pills and should be taken within 72 hours of unprotected intercourse. However, the benefit of EC could be best availed by generating awareness among women of the method, its correct use and ensuring its easy access to all who need it.

This research helps to inform about understanding level of undergraduates' female knowledge and perceptions towards EC to policy makers and education planners in Nepal. Unfortunately, too few researches have been conducted in this area among the students in the country. The aim of my research is to find out knowledge and perceptions towards EC as well as factors influencing awareness of EC among female undergraduates. It hopes that the study will provide data to assist policy makers, programmers and education planners in developing strategies and curricula in school/college to prevent unintended pregnancy and unsafe abortion.

1.2 Problem Statement and Research Questions

Each year, millions of women have unprotected sex and are left in the days that follow, with the fear of pregnancy and the feeling that nothing can be done. In our country Nepal, the national figure for MMR is 281/1, 00,000 live births. Induced abortion is the second cause of maternal deaths, hemorrhage being the first. Induced abortions are the most health threatening conditions especially to those young women who are at the beginning of their reproductive life. So this study especially focuses on undergraduate students. These women have more chances of getting exposed to the danger of unexpected pregnancies. In a developing country like ours, malnutrition, inadequate sanitation, poverty and lack of education add to the critical health sequel for women with unintended pregnancy. Therefore if we succeed in reducing the incidence of unintended pregnancy with the proper use of EC, we will definitely be able to reduce the incidence of induced abortion, thereby reducing the high maternal mortality and morbidity.

According to preliminary reports of census 2011, about 52 percent of the total population of Nepal was women. Women in the age of schooling and economically active are challenges and potentials. Therefore providing information especially reproductive health information for today's young people is a critical value of the country's future economic and social well being. A comprehensive national strategy together with comprehensive research is needed to add the issue of these people. Today many youths marry later but start unsafe sexual intercourse before marriage. As a result, unintended pregnancy is increasing among the female population in Nepal.

According to NDHS 2011, fifty percent of currently married women used contraceptive despite their universal knowledge of modern methods of contraception. Among them 43 percent of currently married women used a modern method of contraceptive and 7 percent are using traditional method. There was no specific data about EC on census and DHS. Before EC we have to think about uses of modern methods of contraceptives, which are decreasing during the past decade (44% in 2006 and 43% in 2011) so youth and their health needs have been the subject of greater

attention in Nepal (Ministry of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012).

In Nepal, the data suggest that more than a third (35%) of all pregnancies and 41 percent of the current pregnancy among currently pregnant women are unintended. The prevalence of premarital sex has been reported as 39 percent among college males and 12 percent among college females. A considerable proportion of both males (10%) and females (22%) reported that their first sexual intercourse happened without their consent. These students are at the greatest risk of unintended pregnancy. A study has also found that a large proportion of college students who were studying in Kathmandu (43% of males and 55% of females) did not use a condom during their first sexual-intercourse (BMC Women's Health, 2009).

The need of study is therefore, urged because of the severe sufferings faced by females in terms of pregnancies related matters. The universal declaration of International Conferences on Population and Development (ICPD) has recommended the participated governments to ensure women's empowerment. One of the key factors of women's empowerment is to ensure the right of controlling the use of EC is protecting women from the unwanted birth.

From the above mentioned problem statement the following research questions are derived:

1. Do undergraduate (bachelors) female students in Kathmandu Valley; have adequate knowledge about EC?
2. How do they interpret about EC (perceptions)?

1.3 Significance of the Study

This study provides knowledge and perception towards EC. It gives to add a new record on the EC related study especially in case of Kathmandu Valley. The few researches were conducted on this issue. Policy makers, NGO, INGO and other EC related organization are always seeking more detailed information on this issue. So, it will be provided reliable information on knowledge and perception towards EC. Which may helps to implement the EC related programs in their areas.

1.4 Objectives of the Study

The overall objective of this research is to find out level of female undergraduates' knowledge and perceptions towards EC.

The specific objectives of this research are as follows:

- To determine knowledge of EC (when and how EC should prescribed, side effects and indication) among female undergraduates in Kathmandu Valley.
- To determine perceptions towards the EC, especially young female undergraduates in Kathmandu valley.
- To examine the views on the essence of dissemination of information on EC in case of Kathmandu valley.

1.5 Limitations of the Study

This research has the following limitations:

- This study is confined to the Bachelor degree's female students in Kathmandu Valley.
- Tribhuwan University affiliated government campuses are selected from Kathmandu Valley as per the objective of the study.
- This research only covers knowledge and perceptions of EC.

1.6 Chapter Plan

This research analyzes the level of female undergraduates' student's level of knowledge and perception towards Emergency Contraception (EC). In detail it focuses on the sources, meaning, using methods, side effect and benefit of EC etc. were analyzed with relating socio-demographic, cultural and Information, Education and Communication variables as well as perception towards it.

The arrangements of the study are divided into eight chapters. The first chapter includes the introductory section i.e. Background of Study, Problem statement and research questions, Significance of the study, Objectives of the study, Limitation of the study and Chapter plan. In the second chapter, EC related Literature reviews include with Conceptual framework and formulation of hypothesis.

Research Methodology with subsection i.e. Population, Sample size and technique, Nature of data, Techniques of data collection, Quantitative and qualitative data collection and Data analysis also deals in third chapter. The fourth chapter represents respondent characteristics. Fifth chapter deals with knowledge on Emergency contraception as well as in six and seven chapter deals with perceptions towards EC and use of EC respectively.

Finally summary, conclusion and recommendations of the study represents in the eighth chapter.

CHAPTER TWO

LITERATURE REVIEW

Among the various forms of contraception, emergency contraception is the only one that can be used after sexual intercourse, offering a second chance to prevent unwanted pregnancy. Study of emergency contraceptive is one of the important subjects in the reproductive health and its scope is broadly identified among demographers and health experts. Emergency Contraceptive is one of the methods of preventing pregnancy after unprotected sexual intercourse.

Emergency contraception (EC) is contraception administered after unprotected intercourse. EC is the only method women can use to prevent pregnancy after they have had unprotected sexual intercourse, have experienced a contraceptive failure, have remembered too late that they have forgotten to take their birth control pills, or have been forced to have sex against their will. EC is sometimes referred to as "morning-after" or "post-coital" contraception. EC is intended for occasional or emergency use only and not as a regular means of contraception. Formerly, EC was thought to be effective only within 72 hours, but recent studies have confirmed it is effective for up to 120 hours. EC methods include taking special doses of ordinary birth control pills as well as inserting an intrauterine device (IUD). Depending on the method used, EC can reduce women's risk of becoming pregnant from a single act of intercourse by between 75 and 99 percent (BMC Women's Health, 2009).

Interest in synthetic hormones as postcoital contraceptives originated several decades ago, with the first published study on the subject appearing in 1967. A few different drugs were studied, with a focus on high-dose estrogens, and it was originally hoped that postcoital contraception would prove viable as an ongoing contraceptive method (Demers, 1971).

The first widely used methods were five days treatments with high-dose estrogens, using diethylstilbestrol (DES) in the US and ethinyl estradiol in the Netherlands (Jonson, 1984).

In the early 1970s, the Yuzpe regimen was developed by AA Yuzpe (Yuzpe et al, 1974); progestin-only postcoital contraception was investigated (Valleg, 1975); and the copper IUD was first studied for use as emergency contraception (Valleg, 1975). Danazol was tested in the early 1980s in the hopes that it would have fewer side effects than Yuzpe, but was found to be ineffective.

Over time, interest in progestin-only treatments increased. The special program on Human Reproduction, an international organization whose members include the World Bank and World Health Organization, "played a pioneering role in emergency contraception "by" confirming the effectiveness of levonorgestrel." After the WHO conducted a large trial comparing Yuzpe and Levonorgestrel in 1998, combined estrogen-progestin products were gradually withdrawn from some markets (*Preven* in the US discontinued May 2004, Schering PC4 in the UK discontinued October 2001, and *Tetragynon* in France) in favor of progestin-only EC, although prescription-only dedicated Yuzpe regimen products are still available in some countries (Federal Drug Administration, 1997).

In 2002, China becomes the first country in which mifepristone was registered for use as EC.

Ebuehi OM et al. (2006) conduct a study in the 2004, where samples of 256 health care providers within the Lagos state were surveyed about their knowledge and attitudes toward and provision of emergency contraceptives, using a 25 item, self-administered questionnaire. Frequencies were calculated for the various measures, and chi-square tests were used to determine significant differences. Nine in 10 providers had heard of emergency contraception, but many lacked specific knowledge about the method. Only half of them knew the correct time frame for effective use of emergency contraceptive pills, and three-fourths knew that the pills prevent pregnancy; more than a third incorrectly believed that they may act as an abortifacient. Less than a third of respondents who had heard about emergency contraception, 58% had provided clients with emergency contraceptive pills, yet only 10% of these providers could correctly identify the drug, dose and timing of the first pill in the regimen. Furthermore, fewer than one in 10 of those who knew of

emergency contraception said they always provided information to clients, whereas a fourth said they never did so (Ebuehi et al., 2006).

A study of the USA, in a world today where unplanned or unintended pregnancies occur in exuberant numbers there is a great need for a solution. Emergency contraception is one that comes to mind. In the United States approximately 3.2 million of the total six million annual pregnancies are accidental, half of these ending in abortion. Eighty percent of teen pregnancies are unintended, and each year, one in nine young women aged 15-19 become pregnant; more than half become mothers. Widespread use of emergency contraception could prevent an estimated 1.7 million unintended pregnancies and 800000 abortions each year. As of September 1998, the Federal Drug administration (FDA), which regulates the introduction of new drugs into the marketplace, has approved a total of 10 brands of combination-hormone pill brands suitable for use as emergency contraception pills. For those who are unable to take the hormone pills there is an option of an intrauterine device. Raising awareness of emergency contraception and allowing health care workers to provide emergency contraception pills to patients who may be in need in the future could dramatically decrease the amount of unintended pregnancy and all the consequences that result ("Emergency Contraception in the United States" US Today, 1998).

Klima et al. (1997) wrote in journal of nurse that, emergency contraception pills are ordinary birth control pills containing the hormone estrogen and progestin. They are also called postcoital contraception or "the morning after pill." Emergency contraception pills (ECP's) can prevent pregnancy after unprotected intercourse by as much as 75% when the first dose is taken within 72 hours and the second dose taken 12 hours later. ECP affects the menstrual cycle. Administering oral contraceptives as emergency contraception at or near the time of ovulation function, which results in an absence of a copper intrauterine contraceptive device within 5 days of unprotected intercourse (Demers, 1971). The intrauterine device (IUD) causes an inflammatory response, making it difficult for implantation to occur on the endometrium. Other types of emergency contraception include "mini-pills" and mifepristone. "Mini-pills" as they are often called are progestin-only pills. They are a good option to those who cannot take estrogen and are not good IUD candidates. They may be as effective as

the Yuzpe regime. However, the progestin-only method has not been as extensively studied as the combined pill. The progestin-only pills also need to be taken within 48 hours of intercourse to be effective. The future of emergency contraception may depend on the success of mifepristone (RU-486) which is currently being studied for use in the U.S. It appears to be better tolerated and more effective when used as an emergency contraceptive, not as a medical abortion. The adverse side effects found with combined oral contraceptives occurred less frequently for the groups given mifepristone than those given the Yuzpe regime. This drug works by binding to the progesterone receptor sites, thus blocking the action of progesterone. As this drug becomes available to the U.S., it may become the emergency contraceptive of choice. It is often a concern to patients whether emergency contraception prevents pregnancy and therefore reduces the need for inducing abortion. Medical science defines the beginning of pregnancy as the implantation of a fertilized egg in the lining of a women's uterus. Implantation takes place five to seven days after fertilization. Emergency contraceptives work before implantation and not after a woman is already pregnant. So, women should be advised that fertilization may not be prevented by ECP's that are taken too late. Should pregnancy occur and it is decided to continue pregnancy, women worry that congenital anomalies may result after using emergency contraception. Unfortunately, there have been no studies that specifically evaluated the risk of congenital anomalies. There have been 48 cases of method failure in women who have chosen to continue their pregnancies. Only one infant was born with a congenital anomaly: a missing kidney. Thus, there is no reason to suspect that one time emergency use of the pills would be associated with birth defects if the pill fails to prevent pregnancy or if they are taken after a woman is already pregnant (Klima et al.,1997).

Morgen, K. & Deneries conducted a study in the year 1997 where, for thousands of years, human beings have been willing to take the risk of pregnancy while having sexual intercourse to later find them searching for a remedy after the fact. Remedies once believed to aid in achieving postcoital contraception include herb douches, sneezing, hopping, jumping and dancing. These remedies date back to 1500 B.C. In the 1920's scientists found that estrogenic ovarian extracts could prevent pregnancy in mammals. This lead to a solution for veterinarians when horses and dogs mated

accidentally. In the 1960's clinical use of postcoital estrogen alone was first documented as treatment for victims of sexual assault. In the 1970's, a Canadian physician names Yuzpe began to study the combination of ethinyl estradiol with a progestin. This became known as the "Yuzpe regimen" and is accepted as the gold standard in emergency contraception. The most important step in assisting women in preventing unintended pregnancy is in educating health care providers about emergency contraceptives so that all patients have access to this method. A survey performed in 1993 indicated the need for more awareness. Two Hundred Ninety Four reproductive health care providers, family practitioners, and emergency department physicians were surveyed to determine how often they provided emergency contraception in the preceding year. The results suggested that the respondents never or rarely spoke to their patients about emergency contraception and only 10% had literature available for patients about the method (Trussel et al., 1997).

American journal of Public Health presented that, the Yuzpe method of emergency contraception is often considered the best regimen because of its lower incidence of side effects of ECP's are not serious, they may affect whether a client will be able to complete the regimen which could decrease the effectiveness of the method. Nausea is the most common side effect associated with emergency contraceptive use and occurs in 50-70% of women who use the method. In addition, approximately 25.0% of women will experience vomiting. Antiemetic may be given to reduce the nausea and vomiting. Breast tenderness, irregular bleeding, and to disappear one or two days after the second ECP has been taken (An American General of Public Health). Women may also experience a change in the length and timing of their next period. If ECP's are used frequently, periods may become irregular and unpredictable.

According to an American journal of the public health, the IUD is often considered the most effective form of emergency contraception and the only method that provides long-term contraception. However, because of the risk of pelvic inflammatory disease in women who are at risk for sexually transmitted diseases (STD's) makes it difficult to find women who can be given an IUD, In other words, victims of sexual assault or promiscuous women should be discouraged from using an IUD until screening for STD's can be done. Along with STD's, limitations should be

made to women who have a history of ectopic pregnancy, or severe dysmenorrheal, or menorrhagia. Some side effects for IUD insertion may include abdominal discomfort, vaginal bleeding or spotting and infection. Possible side effects of IUD use include heavy menstrual flow, cramping, infection, and uterine puncture (Trussel et al.,1997).

Trussel et al., Conducted a study in the year 1997, examining the cost effectiveness of emergency contraception pills, minipills and the intrauterine device have been done. The comparison was between a single contraceptive treatment following unprotected intercourse and emergency contraceptive pills provided in advance. The results showed that in a managed care setting, a single treatment of emergency contraception after unprotected intercourse saves $142 with emergency contraceptive pills and $119 with minipills. The copper intrauterine device is not cost-effective as an emergency contraceptive alone, but the savings quickly result as use continues. Advance provisions of emergency contraceptive pills to women using barrier contraceptives, spermicides, withdrawal, or periodic abstinence saves from $263 to $498 annually. In conclusion, emergency contraception is cost- effective whether provided when the emergency arises or in advance to be used as needed. Greater use of emergency contraception could reduce the considerable medical and social costs of unintended pregnancies (Trussel et al.,1997).

EC pills are a postcoital contraceptive method that has been available since the 1970s. Nevertheless, they are an underutilized option for preventing unwanted pregnancy, partly because knowledge of the method is often lacking, even among health care providers who typically serve as the primary gatekeepers to its access. For example, in a study of Indian paramedical workers, just 3% were familiar with the concept of EC; in a survey of Turkish physicians, midwives and nurses, only 29% of those familiar with the method correctly identified the period of time after unprotected sexual intercourse in which the method was effective; and in a recent survey, 39% of Kuwaiti retail pharmacists had heard of the method. Furthermore, negative attitudes toward and inaccurate knowledge of the method among health care providers-including pharmacists, physicians and nurses-can pose substantial barriers to women's timely access to the pills in the event of unprotected intercourse (Yam, et al., 2007).

Unwanted and unintended pregnancy is one of the major causes of maternal mortality. Unintended pregnancy poses a major challenge to the reproductive health of young adults in developing countries. Some young women with unintended pregnancies obtain abortions many of which are performed in unsafe conditions and others carry their pregnancies to term, incurring the risks of morbidity and mortality higher than those for adult women (Aziken, et al. 2003).

EC pills contain either progestin alone or a combination of estrogen and progestin in higher doses than regular oral contraceptives. If taken within 72 hours of unprotected intercourse, they can reduce a woman's risk of pregnancy by at least 75%. They are safe and effective and, according to WHO guidelines, the only contraindication to use is a confirmed pregnancy. The pills are not harmful to a pregnant woman or her fetus, and they will not terminate a pregnancy. Women taking these pills will sometimes experience short-term nausea and vomiting, neither of which poses a significant health risk. Even with repeated use, women would be exposed to lower hormone levels than if they used regular birth control pills, which themselves have an excellent safety profile. Although an estimated 76 million unintended pregnancies occur every year in developing countries, research on the global demand and the need for emergency contraceptive pills is scant. The consequences of these pregnancies, particularly where abortion is legally restricted, may be life-threatening To lower rates of unintended pregnancy, women need better access to both regular contraceptive methods and emergency contraceptive pills (Blanchard, et al 2005).

Kavanaugh (2005) found that the timely use of emergency contraception after all contraceptive failures could prevent up to 50% of all unintended pregnancies. In 2002, 85% of adolescent pregnancies were unintended, resulting in almost 500,000 births and 235,000 abortions. Emergency contraceptive services may be especially useful to adolescents because of their erratic patterns of sexual behavior and contraceptive use. Providing these services during emergency department hospital visits is vitally important in helping adolescents to prevent unwanted pregnancies.

In South Asia, Bangladeshi Ministry of Health (MoH) requested a feasibility study before considering the introduction of EC into public health outlets. The study

confirmed acceptability among women and identified the most appropriate strategies for the national scale-up (Frontiers, 2005; Hossain & Khan 2007).

Demographic and Health Surveys (DHS) in 22 African countries conducted between 2000 and 2005 and concluded that men and women in most countries in the world have adequate knowledge of other contraceptives, but in 12 countries of Sub Saharan Africa less than 10 percent of women of reproductive age had heard of EC. Conversely, only in five countries had more than 20 percent heard of it (Khan, 2007).

Likewise, more recently small scale survey in some Sub Saharan South East Asian (SSEA) countries shows that only six percent of the women in Bangladesh, four percent in Indonesia and one percent in Nepal had heard EC radio spots. This study also shows that, respondents who knew about EC had positive attitudes towards it and preferred it over abortion (Khan& Hossain, 2008).

Many women who are denied EC are forced to turn to unsafe abortion procedures. Governments' failure to make EC an accessible contraception option violates their duty agreed to in the program of Action of the International Conference on Population and Development to ensure "the widest achievable range of safe and effective family planning and contraceptive methods."Government initiatives worldwide aimed at making EC more accessible. These initiatives begin with the recognition that EC is a means of preventing pregnancy, not terminating pregnancy (Brunton & Beal, 2006).

According to Puri et al (2007) worldwide, 70,000 women aged 15-19 years die each year of pregnancy-and childbirth-related causes. More than 18 million young women give birth to a baby each year and 9 in 10 of them are in developing countries. Also, in developing countries about 30% women give birth to the first child before their 20^{th} birthday. Around 19% of the population in India is constituted of adolescents, of which 90 million are between 15 and 19 years of age. The rate of premarital sex has been reported to be 17% among young females and 33% among young workers in the typical north Indian population respondents.

Age at first sex is an important indicator of exposures to the risk of pregnancy. Forty percent of young women and 24 percent of young men had sex by age 18, a decrease

from five years ago (47 percent and 27 percent, respectively). The proportion initiating sexual activity early was higher among ever-married young women and negligible among those who had not yet married. Forty percent of ever married young men had initiated sexual intercourse by age 18, compared with 16 percent of never-married young men. The likelihood of early sexual debut was associated with low educational attainment among both young women and young men. (Ministry of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012)

From a cross-sectional survey on "Attitude and behavior towards pre-marital sex among college students of Kathmandu, Nepal" carried out in 2006 found that only about two-thirds of college students (68%) had ever heard about EC. Bivariate analysis shows that males were more aware (72%) of the EC than were females (64%). Similarly the awareness level was significantly higher among younger, unmarried youth who were from outside Kathmandu Valley, who lived with friends, and who had received reproductive health (RH) education in school/college. The study also found that students' sex, permanent place of residence (district), and RH education are significant predictors of awareness of EC. Males are 1.5 times more likely to be aware of EC compared to females. Furthermore, students who lived in Kathmandu Valley were 41% less likely to be aware of EC than were students from outside Kathmandu Valley. On the other hand, those students who received RH education in school/college were almost nine times more likely to be aware of EC compared to those who did not receive such education (Adhikari, 2009).

Duration of exposure to the risk of pregnancy depends primarily on the age at which women first marry. Women who marry early, on average, are more likely to have their first child at a young age and give birth to more children overall, contributing to higher fertility. It is an important social and demographic indicator and, in most societies, represents the point in a person’s life when childbearing first becomes acceptable (Ministry of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012).

The Total Fertility Rate (TFR) for the three years preceding the 2011 NDHS is 2.6 births per woman. Fertility is considerably higher in rural areas (2.8 births per

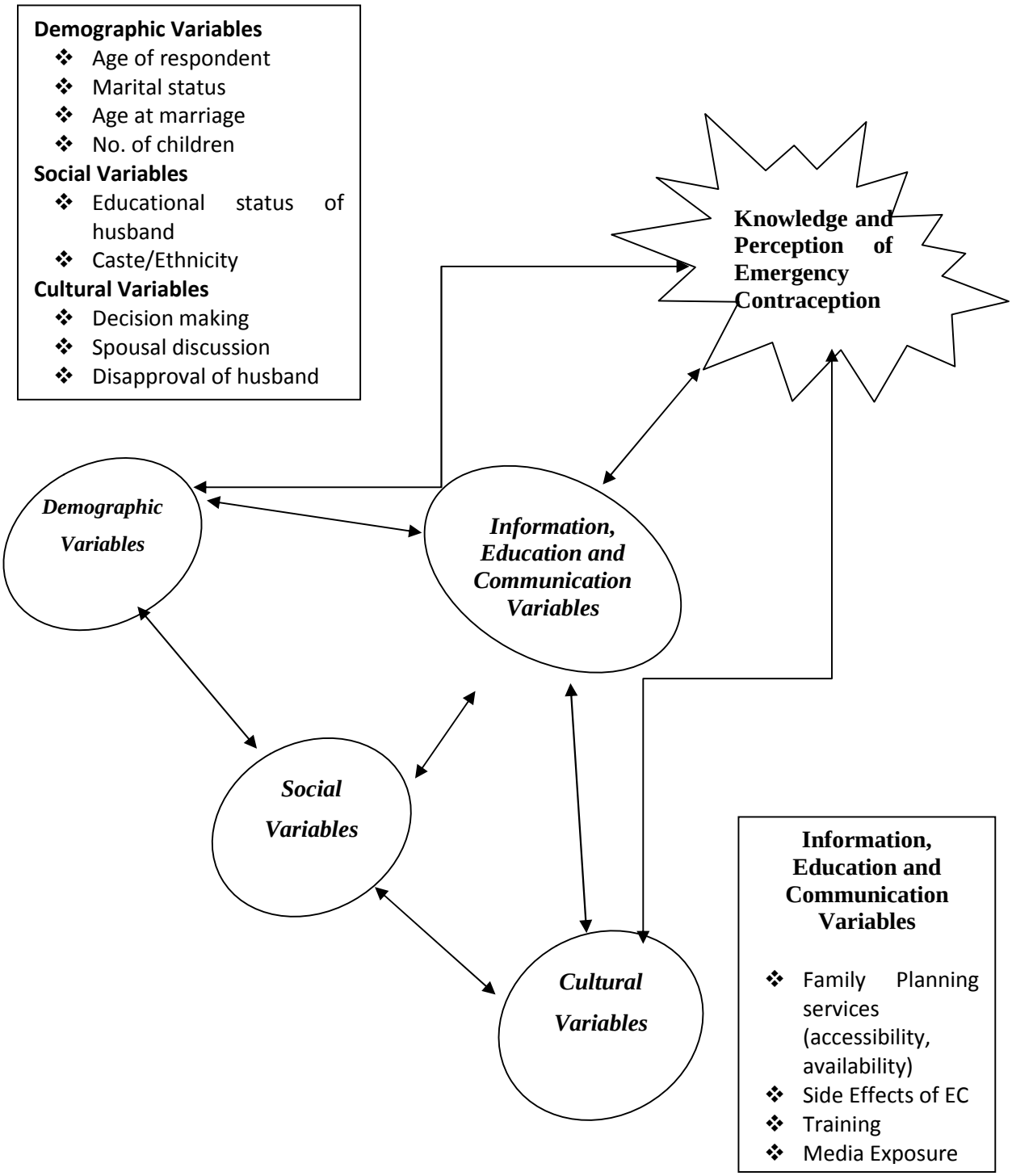
woman) than in urban areas (1.6 births per woman), where fertility is below replacement level. The overall age pattern of fertility, as reflected in the ASFRs, indicates that childbearing begins early. Fertility is lower among adolescents, increases to a peak of 187 births per 1,000 among women age 20-24, and declines thereafter. Level of fertility is inversely related to women's educational attainment, decreasing rapidly from 3.7 births among women with no education to 1.7 births among women with a School Leaving Certificate (SLC) or above. Fertility is also associated with wealth quintile. Women in the lowest wealth quintile have an average of 4.1 births, nearly three times as much as women in the highest quintile (1.5 births) (Ministry of Health and Population (MoHP) [Nepal], New ERA and ICF International Inc, 2012).

There is no more research has been conducted on EC particularly in Kathmandu Valley. So, this study needs to be conducted to find out the level of knowledge and perception towards EC especially on female undergraduate students in Kathmandu Valley.

2.1 Conceptual Framework

The adequate knowledge and favorable perceptions towards EC have a major bearing to decrease on the number of induced abortions. So based on the above mentioned literature review, conceptual framework for this study is presented as follows:

Figure 2.1- Conceptual framework of the research based on the objectives, research questions and literature review



Information, Education and Communication (IEC) variables determine the level of Knowledge and Perception towards EC. IEC variables are influenced by social, demographic and cultural variables. Social and demographic factors are also affected by cultural variables and vice-versa. So this study aims to know the crucial roles and relationships between social, culture, IEC and demographic variables which play a vital role to change the individuals' knowledge, perception and behaviors toward EC.

In this research, EC is considered as dependent variables. This is influenced by different independent Variables (social, cultural, demographic and IEC). Demographic variables are mainly used to determine the knowledge and perceptions towards EC among married women. These variables help to identify the difference between married and unmarried women's level of knowledge and perceptions towards EC. Specially, EC is a part of women's reproductive health. In our society after marriage, women are legally engaged in sexual behavior. But nowadays preference for pre-mature sexual behavior also exists in our society. Many studies have shown that the unmarried women have higher pre-marital sexual behavior compared to married women. Due to pre-marital sexual behavior, there is a high risk of unwanted pregnancy.

Social factors such as educational status of husband and caste/ethnicity determine the knowledge and perceptions towards EC. A preference for the sex of the next child has occurred due to husband's desire for more children. If husband is well educated, he becomes more aware about family size, unsafe sexual behavior as well as unwanted pregnancy. Different societies have different perceptions towards each subject. So, caste/ethnicity also determines the level of knowledge and perception towards EC.

In our society, women power of decision making, spousal discussion and disapproval of husband are influenced by cultural behavior. In most societies, men exercise greater power in nearly every sphere of life, ranging from personal decision regarding the size of family to the policy and program about gender equality.

Instead of social, demographic, cultural barriers or difficulties, IEC factor as accessibility and availability of family planning services, fear of side effects of EC,

involvement on training related to EC and media determine the conceptual clarity of EC among undergraduate female students that enable them to aware towards EC.

2.2 Formulation of Hypothesis

Knowledge and perception towards EC is determined by different variables. In this study, to identify the determinants of knowledge and perception towards EC these three hypotheses were formulated.

1. There is an association between caste and knowledge of EC.
2. There is an association between marital status and knowledge of EC.
3. There is an association between knowledge and perception towards EC.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Population

All female undergraduate students of Kathmandu Valley are the target population for this study. Two campuses (Padma Kanya Multiple Campus and Ratna Rajya Laxmi Campus) are selected out of 25 Tribhuvan University (TU) affiliated campuses of Kathmandu Valley because of having access to female undergraduate (bachelor's degree) students.

3.2 Sample Size and technique

Each of the female undergraduate students from Padma Kanya Multiple Campus and Nepal Manbiki Campus were eligible for interview but particular respondents 250 selected using simple random sampling method.

S.N	Campuses	Sample Size
1	Padmakanya Multiple Campus	125
2	Ratna Rajya Laxmi Campus (Nepal Manbiki Campus)	125
Total		250

3.3 Nature of data

The nature of data in this study primary and secondary data has been collected. Both qualitative and quantitative nature of the data also used in this study. Primary data were collected from the fieldwork using questionnaire interviews, focus group discussions. And the secondary data are collected from various sources such as: journals, articles, papers reports, books, records from concern organization related to Emergency Contraceptive and female undergraduates. Secondary data were used to extend, elaborate and strengthen the context provided by the primary data.

3.4 Techniques of Data collection

This study based on mixed method technique such as data collection through questionnaire and Focus Group Discussion. In this study many questions were used to get actual information about knowledge and perceptions of EC. Structured and semi-structured questionnaires were developed in simple and understandable English language to measure the knowledge regarding EC.

3.4.1 Quantitative and Qualitative Data Collection

A quantitative qualitative research design is considered for this study, which are assessed variables such as knowledge and perceptions of EC. The close and open-ended questionnaire are included, which are related to knowledge of EC (type and mode of action of EC, the sources of information regarding EC, knowledge of dosing schedules, side effects etc). The demographic and socio-cultural information including age of respondent, marital status, age at marriage, No. of children, power of Decision making, Spousal discussions, Disapproval of husband are also required. Each of the sample students was involved in this section.

Besides addition the quantitative information, qualitative information was also collected from respondents through Focus Group Discussion (FGD). In FGD, the open-ended questions were used to explore and clarify their views in ways that less likely to emerge in a one-to-one interview. To bring up new, unexpected and unforeseen issues related to EC, two FGDs were conducted after collection of knowledge related information. One FGD was with unmarried and another with married respondents.

3.6 Data analysis

Quantitative and qualitative data analyzed by using the Statistical Package for Social Science (SPSS) and logical methods. The analysis part thesis was consisted of descriptive to summarize and describe the data. To check the association between variables and knowledge of the EC as well as perception towards EC, chi-square was used.

Chi-square test

The Chi - square test is a non-parametric test which is used to measure the discrepancy between observed and expected frequencies and to test attributes is associated or not.

Mathematically Chi-square is defined as

Chi - square ($¡^2$) = p $(O-E)^2 / E$

Where, O- Observed frequencies and E- Expected frequencies

CHAPTER FOUR

CHARACTERISTICS OF RESPONDENTS

This chapter provides a summary of the socio-demographic characteristics of respondents. It is useful in understanding and identifying the major factors that determine the basic demographic indicators of the study population.

4.1 Respondent's Characteristics

Information on the basic socio-demographic characteristics of the respondents in this thesis is essential for the interpretation of the findings.

4.1.1 Background Characteristics

Table 4.1 describes the percent distribution of respondent's background by their socio demographic characteristics. Out of the total respondents, the highest percent (62%) belonged to age group 20-24; similarly one fifth of the respondents (20.8%) age group of 15-19. The mean age of respondents was 22.01 years.

More than half of the respondents (50.8%) were from nuclear families. As well, 92.8 percent belonged to Hindu religion, 6 percent were from Buddhist and 1.2 percent of Muslims.

Similarly, out of the total respondents, Majority of the respondents (77.6%) were from Non-Janjati and 22.4 percent from Janjati. According to the birth place of respondents, 14.4 percent were from the Kathmandu Valley. Similarly, 74 percent of the total respondents were unmarried followed by 26 percent who were married.

Table 4.1- Percent Distribution of Respondents by Background Characteristics

General Characteristics	%	n
Age of respondent		
15-19	20.8	52
20-24	62.0	155
25-29	11.2	28
30+	6.0	15
Type of Family		
Joint	49.2	123
Nuclear	50.8	127
Caste/Ethnicity		
Janjati	22.4	56
Non-Janjati	77.6	194
Religion		
Hindu	92.8	232
Buddhist	6.0	15
Muslim	1.2	3
Marital Status		
Unmarried	74.0	185
Married	26.0	65
Place of birth		
Kathmandu Valley	14.4	36
Out of Kathmandu Valley	85.6	214
Total	**100.0**	**250**

Source: Field Study 2012

Two Focus Group Discussions (FGDs) conducted to triangulate the findings. In total 20 participants involved in two focus group discussion. There are 10 participants in each FGD. Married and unmarried participants were placed in each group. Participants of unmarried FGD were about 18-22 age-groups and another FGD with married women were about 26-30 age-group. Most of the respondents were from joint family. More than 90% belonged to Hindu religion. All married women had at least a child and their husband's level of education was SLC and higher.

4.1.2 Fertility Characteristics of Married Respondents:-

Married respondent's fertility characteristics are presented on the table 4.2. Out of 26 percent of married respondents, Majority of the respondents (75.4 %) was at the age of 20-24, while one fifth (20%) of the respondents in the age group of 15-20. Likewise, 3.1 percent were married at the age of 25+ and 1.5 percent at age group of 10 -15. The mean age at first marriage is 20.58 years. FGD participants claimed that the proper age at first marriage for women is 20-25 year. Data showed that there is still practiced of early marriage although the concept about age at marriage is 20^{+}.

The level of education of the majority respondent's (98.4%) husband completed SLC or Higher. Most of the respondents (69.6%) had given live birth to children. Among them the majority of the respondents (69.04%) had son whereas more than one third (38.09%) of the respondents had daughter.

Table 4.2- Percent Distribution of Married Respondents According to Their Fertility Characteristics:-

Characteristics of Respondents	%	n
Age at marriage		
10-14	1.5	1
15-19	20.0	13
20-24	75.4	49
25+	3.1	2
Husband's level of education		
Primary	1.5	1
SLC or Higher	98.4	64
Give a Live Birth		
Yes	64.6	42
No	35.3	23
No. of respondents who have child*		
One	76.1	32
Two	21.4	9
Three	2.4	1
No. of respondents who have son*		
One son	93.1	27
Two son	6.9	2
No. of respondents who have daughter*		
One daughter	62.5	10
Two daughter	37.5	6
Total	100.0	65

Source: Field Study 2012

**Respondents who had given live birth (n=42)*

According to FGD, Almost all respondents reported that 20-25 is the best age group of marriage. Some of the sayings of respondents related to early marriage are as follows-

"Female is physically, mentally and psychologically matured after 20".

One Unmarried FGD participant

"Especially women faced a problem on Uterus (like as uterus prolapsed) because of early marriage". One married FGD participant

"After marriage women were trapped of the family, she must be given birth to children so, early marriage is not good". One unmarried FGD participant

"Women are not able to take decisions about their RH matter in smaller age.

One married FGD participant

CHAPTER FIVE

KNOWLEDGE ON EMERGENCY CONTRACEPTION

This chapter includes information regarding the Knowledge related information about the sources, meaning, methods, side effects and benefits of EC etc. was analyzed with relating socio-demographic, cultural and Information, Education and Communication variables.

5.1 Basic Knowledge about Emergency Contraception

Emergency Contraceptive is one of the methods of preventing pregnancy after unprotected sexual intercourse. EC is the only method women can use to prevent pregnancy after they have had unprotected sexual intercourse, have experienced a contraceptive failure, have remembered too late that they have forgotten to take their birth control pills, or have been forced to have sex against their will.

Table 5.1 reveals the basic knowledge on EC of the respondents. Most of the respondents heard about EC but all of them do not have the appropriate knowledge about it. Among 250 respondents, nearly one third (31.6%) knew the right answer that EC is a contraception which used after unprotected intercourse to avoid unwanted pregnancy.

Out of total respondents, only 18.6 percent respondents had knowledge of using EC as soon as possible after unprotected intercourse. Among 250 respondents, only two fifth (40%) reported within 72 hours to be most acceptable time for EC, which is also the correct answer. Among 250 respondents, who knew that women are eligible for EC in terms of sex are 76 percent while nearly half (48.4%) of the total respondents reported that EC can't prevent sexually transmitted infections like syphilis, gonorrhea and HIV/AIDS.

Table 5.1- Percent Distribution of Respondents by Basic Knowledge of EC

Knowledge about Emergency Contraceptive (EC)	**%**	**n**
Meaning of EC		
Contraception, used before unprotected intercourse to avoid unwanted pregnancy	29.6	74
Contraception, used for birth spacing	27.6	69
Contraception, used after unprotected intercourse to avoid unwanted pregnancy	31.6	79
Don't know	11.2	28
Eligible for EC in terms of sex		
Male	15.2	38
Female	76	190
Don't Know	8.8	22
Most acceptable time for EC after unprotected sex		
As soon as possible	18.6	46
No time limits	6.4	16
Within 24 hours	13.2	33
Within 72 hours	40	100
Don't know	21.2	53
Not stated	0.8	2
Emergency Contraceptive prevent sexually transmitted infections like syphilis, gonorrhea and HIV/AIDS etc. (n=250)		
Yes	31.6	79
No	48.4	190
Don't know	20.0	50
Total	**100.0**	**250**

Source: Field Study 2012

The table 5.2 presents data on respondent's knowledge on EC by socio-demographic characteristics. The table shows that 21.2 percent of 20-24 year respondents understood about EC to be used after unprotected intercourse to avoid unwanted pregnancy likewise 8.8 percent of 15-19 year students understood about EC.

Table 5.2- Percent Distribution of Respondents Who Know About the Meaning of EC According to Age Group and Marital Status

Age-group	Meaning of Emergency Contraception									
	Contraception, used before unprotected intercourse to avoid unwanted pregnancy		Contraception, used for birth spacing		Contraception, used after unprotected intercourse to avoid unwanted pregnancy		Don't know		Total	
	%	n	%	n	%	n	%	n	%	n
15-19	5.2	13	4.0	10	8.8	22	2.8	7	20.8	52
20-24	16.4	40	18.4	46	21.2	53	6.4	16	62.0	155
25-29	5.6	14	3.6	9	1.2	3	0.8	2	11.2	28
30+	2.8	7	1.6	4	0.4	1	1.2	3	6.0	15
Total	29.6	74	27.6	69	31.6	79	11.2	28	100	250
Marital status										
Unmarried	20.4	51	18.4	46	26.4	66	8.8	22	74.0	185
Married	9.2	23	9.2	23	5.2	13	2.4	6	26.0	65
Types of Family										
Joint	11.2	28	17.6	44	12.8	32	7.6	19	49.2	123
Nuclear	18.4	46	10.0	25	18.8	47	3.6	79	50.8	127
Caste of respondents										
Janjati	4.8	12	6.0	15	9.2	23	2.4	6	22.4	56
Non-Janjati	24.8	62	21.6	54	22.4	56	8.8	22	77.6	194
Total	29.6	74	27.6	69	31.6	79	11.2	28	100.0	250

Source: Field Study 2012

The table also depicts that distribution of the correct meaning about EC. Unmarried women had six times greater correct knowledge than married respondents (4.0%).

While in case of type of family, 18.8 percent respondents from nuclear family and 12.8 percent were from joint family had understood the meaning of EC appropriately.

Regarding the knowledge on EC of the caste groups, 9.2 percent from Janajati and more than one fifth (22.4%) from Non Janajati had reported the right meaning of the

EC. Most of the respondents of FGD thought that EC is used for terminating the pregnancy not to be preventing the pregnancy.

5.2 Source of Information on Emergency Contraception

Those respondents who reported that they had knowledge about EC were asked about the source of information.

5.3- Percent Distribution of Respondent According to Who Heard About EC by Source of Information

Sources	**%***	**n**
TV	90.0	225
Radio	84.0	210
Relatives/Parents	35.6	89
Boyfriend/Partner	16.4	41
Female friends	36.8	92
Internet web page	34.0	85
Magazines /Newspapers	40.4	101
Health care provider	21.2	53
From course/Formal lecture	14.0	35
Poster/Holding Board	20.0	50
Street Drama	9.6	24
Shop	10.0	25
Theater	8.4	21

Source: Field Study 2012

*Percent may exceed 100 due to multiple responses.

People mostly heard about EC through TV (90%), radio (84%), magazines/newspapers (40.4%) than the internet (34%). Other major sources which are not related to media are female friends and relatives/parents. Among 250 respondents 36.8 percent respondents got the information about EC from female friends and 89 cases (35.6%) respondents got the information from relatives/parents as shown in table 5.3.

Table 5.4 - Percent Distribution of Respondents Who Heard About EC According to Place of Birth by Sources of Information

Sources	Place of birth				Total	
	Kathmandu Valley		Out of Kathmandu Valley			
	%	n	%	n	%	n
TV	12.9	31	80.8	194	93.8	225
Radio	11.7	28	75.8	182	87.5	210
Internet web page	2.9	7	31.7	76	34.6	83
Magazines/Newspapers	5.0	12	37.1	89	42.1	101
Total	14.4	35	85.4	205	100.0	240

Source: Field Study 2012

Table 5.4 describes about percent distribution of respondents who heard about EC through different media explores according to their place of birth. Out of 14.4 percent from Kathmandu Valley, 12.9 percent respondents heard about EC through TV, 11.7 percent respondents from radio, 2.9 percent cases from internet web page and 5 percent from magazines/newspapers. Among the respondents of out of Kathmandu Valley 80.8 percent respondent heard about EC through TV, 75.8 percent from radio, 31.7 percent through internet webpage and 37.1 percent from magazines/newspapers.

5.3 Types of Emergency Contraception

Respondents who heard about EC were asked about the different types of EC and its dosing system.

Table 5.5 - Percent Distribution of Respondents Who Know About Family Planning Methods Which Are Used as EC

Family planning method, which are used as EC	%	n
Oral Contraceptive Pills	51.6	129
Copper-T Intrauterine Device(IUD)	18.8	47
Oral Contraceptive Pills and Copper-T both	11.2	28
Norplant and Depo-Provera	11.6	29
Condom, Diaphragm	32.8	82
E-con	26.8	67
I-pills	54.8	137
Don't Know	25.2	63

Source: Field Study 2012

**Percent may exceed 100 due to multiple responses.*

Multiple responses were observed to identify the methods of EC, which are heard by respondents. Most of the respondents (54.8%) reported that I-pill is one method of EC. Likewise more than half of the respondents (51.6%) reported oral contraceptive pills and more than one fourth (26.8%) said E-con. But some of respondents' responded condom, Diaphragm, Norplant and Depo-Provera also used as EC method.

On the FGD, every participant reported that they had heard about I-pills used as EC but they had not adequate knowledge about it. Because of our existing norms, values and practices of society, even educated women also don't want to talk about this matter.

Table 5.6 Percent Distribution of Respondents Who have Knowledge about Emergency contraceptive Pills (ECPs) and Its Timing to Use

Timing of ECPs	**%**	**n**
Time recommended for 1st dose of ECPs after unprotected sex		
No time limits	2.8	7
Within 24 hours	16.0	40
Within 72 hours	34.8	87
after 12 hours	2.4	6
Don't know	41.6	104
Not stated	2.4	6
Required time interval for 2nd dose of ECPs after taking off 1st dose		
After 12 hours	13.6	34
After 24 hours	6.8	17
After 48 hours	4.8	12
Don't know	74.8	187
Total	100.0	250

Source: Field Study 2012

Table 5.6 shows that most of the respondents were unknown about timing (dosing) system of ECPs. This table reveals that more than one third (34.8%) respondents gave right answer by using the 1st dose of ECPs that is within 72 hours after unprotected sex. While 13.6 percent of the respondents had knowledge about correct time interval between 1st and 2nd dose of EC pills to use after 12 hours comparing to the largest percent (74.8%) were unknown about it.

Table 5.7- Percent Distribution of Respondents Who Know About Intra Uterine Device (IUD)

Effective method of EC	**%**	**n**
Yes	35.2	88
No	21.2	53
Don't know	43.6	109
Recommended time to insert an IUD after unprotected sex		
No time limits	2.4	6
Within 3 days	6.0	15
Within 5 days	14.4	36
Don't know	69.6	174
Not stated	7.6	19
Seek medical advice after taking some EC method		
Yes	80.4	201
No	6.8	17
Don't know	12.8	32
Total	100	250

Source: Field Study 2012

The table 5.7 shows that more than one third respondent (35.2%) agreed on IUD as an effective method of EC whereas 21.2 percent disagreed and 43.6 percent were unknown about it.

Likewise the table further depicts that out of total, 14.4 percent of the respondents knew the right answer about time of inserting an IUD after unprotected intercourse while 69.6% of the respondents were unknown about it. Following to it, Among 250 respondents 80.4 percent respondents agreed on seeking medical advice after taking EC.

5.4 Reasons for Non Use of Emergency Contraception

The table 5.8 reveals that 59.2 percent of unmarried respondents were known about side effects of EC while more than two fifth of the respondents (40.8%) were unknown about it. Similarly among 26 percent married respondents, 6.8 percent of the respondents knew about nausea and vomiting, 1.6 percent heard about breast tenderness, 6.4 percent headache and dizziness and 5.2 percent heard about irregular vaginal bleeding as the side effects of EC. Among unmarried respondents one fifth of the respondents (20.4%) heard about nausea and vomiting, 13.2 percent heard about irregular vaginal bleeding, 11.6 percent heard about headache and dizziness and only 6.4 percent heard about breast tenderness as side effects of EC.

Table 5.8 - Percent Distribution of Respondents by Who Know About Side Effect of EC According to Marital Status

Side effect	Marital Status				Total	
	Unmarried		Married			
	%	n	%	n	%	n
Nausea and vomiting	20.4	51	6.8	17	27.2	68
Breast tenderness	6.4	16	1.6	4	8.0	20
Headache and dizziness	11.6	29	6.4	16	18.0	45
Irregular vaginal bleeding	13.2	33	5.2	13	18.4	46
Don't know	40.8	102	14.4	36	55.2	138
Total	74.0	185	26.0	65	100.0	250

Source: Field Study 2012

5.5 Benefits of Emergency Contraception

As seen in Table 5.9, more than one fifth (22%) of unmarried respondents were unknown about the benefits of EC. Similarly among 26 percent married respondents, only 8.8 percent knew that EC helps to reduce unintended pregnancy, 8.4 percent replied that it is easy to use, 4.8 percent knew that it is effective service and 1.6 percent were unknown about the benefits of EC. Out of unmarried respondents, more

than one fourth of respondents (27.2%) knew about EC helps to reduced unintended pregnancy, more than one fifth of respondent (23.2%) knew about EC is easy to use, 22 percent did not know about it. Eight percent knew it is effective service and 7.6 percent reported that it helps to reduce side effects.

Table 5.9- Percent Distribution of Respondents According to Benefits of EC by Marital Status

Benefits	Marital Status				Total	
	Unmarried		Married			
	%	n	%	n	%	n
Effective service	8.0	20	4.8	12	12.8	32
Easy to use	23.2	58	8.4	21	31.6	79
Reduce side effect	7.6	19	7.2	18	14.8	37
Reduce unintended pregnancy	27.2	68	8.8	22	36.0	90
Don't know	22.0	55	1.6	4	23.6	59
Total	74.0	185	26.0	65	100.0	250

Source: Field Study 2012

Table 5.10-Percent Distribution of Respondents According to Conditions for Not Use of Intra Uterine Devices (IUD) and Emergency Contraceptive Pills (ECPs)

Conditions not to use an IUD	**%***	**n**
Those who have been raped	22.0	55
Those who have a multiple sexual partner	17.2	43
Don't know	60.8	152
Conditions not to use ECPs		
Who are pregnant	65.2	165
Vaginal bleeding cause unknown	6.8	35
Allergy to product; Pills and copper-T	5.7	29
Don't know	22.3	56
Total	100	250

Source: Field Study 2012

**Percent may exceed 100 due to multiple responses.*

According to table 5.10, Among 250 respondents 60.8 percent respondents don't know about who should not use IUDs. More than one fifth of the respondents (22%) reported that it should not use by those who have been raped and 17.2 percent reported that it should not use by those who have multiple sexual partners.

Similarly in case of ECPs, 65.2 percent of the respondents responded that it should not use those who are pregnant, more than one fifth (22.3 %) did not know about it. Among total respondents, 6.8 and 5.7 percent respondents reported that ECPs should not use while if cause unknown of vaginal bleeding and Allergy to products (like as I-pills and copper-t) respectively.

5.6 Accurate Knowledge Regarding the Emergency Contraception

From the table 5.11 out of total respondents nearly one third (31.6%) gave the correct answer on meaning of the EC, i.e EC is used after unprotected intercourse to avoid unwanted pregnancy. Likewise 76 percent respondents gave the right answer; women are eligible for EC in term of sex. Similarly, Among 250 respondents 72.4 percent responded right answer about indication of EC. More than one third (34.8%) of the total respondents gave right answer on a dosing schedule. While only 18.4 percent of total respondents reported that as soon as possible after unprotected sex is the most acceptable time for women to take EC.

Table 5.11- Percent Distribution of Respondent According to Accurate Answer of Knowledge Related Questions

Knowledge Related Questions	**%**	**n**
Meaning of EC	31.6	79
Eligible for EC in terms of sex	76.0	190
Indication of EC	72.4	181
Most acceptable time for women to take EC	18.4	46
Dosing Schedule	34.8	87
Total	**100.0**	**250**

Source: Field Study 2012

5.7 Associations between marital status and caste with Knowledge on Emergency Contraception

A level of knowledge of EC was measured weight as low and high reflecting to the number of knowledge related correct answers. Among all knowledge related questions, less than 7 right answers reflects the low level of knowledge and more than 6 right answers reflects the high level of knowledge.

Hypotheses formulated in the second chapter of this thesis are tested using the chi - square test as follows:

Hypothesis-1: There is an association between marital status and knowledge of EC.

There is an association between marital status and knowledge of EC ($p<0.05$).

Hypothesis-2: There is an association between caste and knowledge of EC.

There is no association between caste and knowledge of EC ($p>0.05$). It may be belonging non janjati people are strictly followed social norms, value and tradition. So they think RH related topic is not the matter of discussion. In another case, they have knowledge but do not want to explore openly because they feel superior in society. Their social norms and value define that talking about this matter is promiscuous.

Table 5.12- Association between marital status and caste with Knowledge on EC

Demographic Characteristics	**Knowledge of EC**				**Total (N=250)**		**P-value**
	Low		**High**		**%**	**n**	
Caste							
Janjati	19.2	15	23.8	41	22.4	56	0.418
Non Janjati	80.8	63	76.2	131	77.6	194	
Marital Status							
Unmarried	83.3	65	69.8	120	74.0	185	0.23
Married	16.7	13	30.2	52	26.0	65	

Less than 7 right answer =Low levels of knowledge
More than 6 right answer= High level of knowledge

CHAPTER SIX

PERCEPTIONS TOWARDS EMERGENCY CONTRACEPTION

This section describes about the perception towards EC. Respondents who had knowledge of EC were also asked to mention their perceptions towards EC. Various statements were developed to identify perceptions of respondents towards EC.

6.1 Person who makes the decision

In this research to know the perceptions of respondents about making the decision to use and non-use of EC, the statement "Especially husbands take decisions about use of EC" was asked to both married respondents.

Out of total married respondents only 12.4 percent reported that the decision of using of EC especially made by husbands. While 0.8 percent was unknown about it and 12.8 percent disagree on the statement "Especially husbands take decisions about use of EC.

Likewise, out of total respondents, 38.0 percent were from out of Kathmandu Valley who agreed with the statement and 6.8 percent of Kathmandu Valley. Similarly out of total respondents 36.8 percent were from out of Kathmandu valley who disagreed with the statement. In the same way out of the total unknown respondents of making the decision of using EC, 10.8 percent were from out of Kathmandu valley and 1.2 percent of Kathmandu Valley.

According to the husband level of education, out of total married respondents 49.2% percent disagreed and 47.7 percent agreed with the statement, whose husband's level of education had SLC or higher.

Table 6.1- Percent Distribution of Respondents According to Their Perception Who Make Decision about the Use and Non Use of EC

Marital status	Husbands take decisions about use of Emergency Contraceptive							
	Yes		No		Don't know		Total	
	%	n	%	n	%	n	%	n
Married	12.4	31	12.8	32	0.8	2	26.0	65
Place of birth								
Kathmandu Valley	6.8	17	6.4	16	1.2	3	14.4	36
Out of Kathmandu Valley	38.0	95	36.8	92	10.8	27	85.6	214
Total	44.8	112	43.2	108	12.0	30	100.0	250
Husband's level of education								
Primary education	0	0	1.5	1	0.0	0	1.5	1
SLC or Higher	47.7	31	47.7	31	3.1	2	98.5	64
Total	47.7	31	49.2	32	3.1	2	100.0	65

Source: Field Study 2012

According to FGD, Most of the married respondents reported that they discuss with their husband about the use of FP methods, number of children. Some voices of respondents are as follows:

"I always discuss with my husband on the matter of FP".

One Married respondent, FGD

"I had two children, so my father in law also suggested me to think about some family planning method." One Married respondent, FGD

"In our society I think there is no need of spousal discussion on the matter of EC".

One Married respondent, FGD

Table 6.2 - Percent Distribution of Respondents According to their Perceptions on Reasoning of Unwanted Pregnancy

Live birth	Women faced unwanted pregnancies because of forced to have sex with her husband/partner.									
	Yes		No		Don't know		Not stated		Total	
	%	n	%	n	%	n	%	n	%	n
Yes	29.2	19	32.3	21	3.1	2	-	-	64.6	42
No	30.8	20	3.1	2	1.5	1	-	-	35.4	23
Total	60.0	39	35.4	23	4.6	3	-	-	100.0	65
Husband's level of education										
Primary education	1.5	1	0	0	0	0.0	0	0	1.5	1
SLC or Higher	58.5	38	35.4	23	4.6	3	1.5	1	98.5	64
Total	60.0	39	35.4	23	4.6	3	1.5	1	100.0	65

Source: Field Study 2012

According to table 6.2, within married respondents who had given life birth, nearly one third of respondents (32.3%) disagreed with the statement "women faced unwanted pregnancies because of forced sex with her husband/partner." While 29.2 percent of respondents who had given live birth agreed with the statement. Out of total married respondents, whose husbands' level of education was SLC or higher 58.5 percent of the respondents agreed and 35.4 percent disagreed with the statement.

In FGD, married respondents reported that, women cannot talk or discuss about EC even their husbands. Some of the married respondents reported that, it is not necessary to talk or discuss about EC.

In my experience, husband never tries to understand the wife's willingness to have sex at any time. One married respondent, FGD

Table 6.3- Percent Distribution of Respondents According to their Perceptions on Who Use EC

Type of Family	Especially promiscuous women are use EC.									
	Yes		No		Don't know		Not stated		Total	
	%	n	%	n	%	n	%	n	%	n
Joint	12.0	30	33.2	83	3.6	9	0.4	1	49.2	123
Nuclear	10.0	25	40.0	100	0.8	3	0	0	50.8	127
Total	22.0	55	73.2	183	4.4	11	0.4	1	100	250
Marital Status										
Unmarried	18.0	45	52.0	130	4.0	10	0.0	0	74.0	185
Married	4.0	10	21.2	53	0.4	1	0.4	1	26.0	65
Total	22.0	55	73.2	183	4.4	11	0.4	1	100.0	250

Source: Field Study 2012

Table 6.3 shows that the two fifth (40%) of the respondent from nuclear family and one third (33.2%) from joint family disagreed on this statement "EC is especially used by promiscuous women". Whereas 12 percent of respondents from joint family and 10 percent from nuclear family agreed with this statement. Only 4.4 percent of the respondents including both from the joint and nuclear family were unknown about it.

Likewise, 52 percent of unmarried respondents and more than one fifth (21.2%) of married respondents disagreed with this statement and 18 percent unmarried and 4 percent married respondents agreed with this statement.

The table 6.4 shows that, according to caste group most of the respondents (62%) from the Non-Janjati agreed that "women can't buy EC form shop because of being stigmatized". Similarly, 17.2 percent from Janjati agreed with the statement.

Of the total respondents one fifth (20.2%) who got married and 59.2 percent unmarried agreed with the statement. Unlike to it 11.2 percent unmarried respondents and 4.4 percent married respondents do not agree with the statement.

In this statement, FGD participants reported that Because of society's norms, value, traditional thinking, and practice, women can't buy EC from the shop still. Some voices of respondents are as follows:-

"I am afraid to buy EC or other FP method from shop because of our society, if anyone saw me on shop buying EC; they think me as bad women."

One married FGD participant

"I always asked to husband to buy FP or EC. Because I afraid to go shopping to buy EC, if anybody saw me they think I am not a good woman".

One married FGD participant

Table 6.4- Percent Distribution of Respondents According to their Perceptions of Difficulties to Buy EC from the Shop

Caste	**Women can't buy EC from shop because of being stigmatized**									
	Yes		**No**		**Don't know**		**Not stated**		**Total**	
	%	n	%	n	%	n	%	n	%	n
Non-Janjati	62.0	155	11.2	29	4.0	10	0	0	77.6	194
Janjati	17.2	43	4.0	10	0.8	2	0.4	1	22.4	56
Total	79.2	198	15.2	39	4.8	12	0.4	1	100.0	250
Marital Status										
Unmarried	59.2	148	11.2	28	3.6	9	0	0	74.0	185
Married	20.2	50	4.4	11	1.2	3	0.4	1	26.0	65
Total	79.2	198	15.6	39	4.8	12	0.4	1	100	250

Source: Field Study 2012

6.2 Perception towards premarital sex

Table 6.5 depicts that, 21.6 percent of married respondents disagreed that "Premarital sex is necessary or appropriate in our society". Among unmarried respondents 60.8 percent were not agreed with this statement. Only 9.6 percent unmarried and 4 percent married respondents were agreed with the statement.

Table 6.5- Percent Distribution of Respondents According to Their Perceptions on What They Think About Premarital Sex.

Responses	Marital Status				Total	
	Unmarried		Married			
	%	n	%	n	%	n
Yes	9.6	24	4.0	10	13.6	34
No	60.8	152	21.6	54	82.4	206
Not stated	3.2	8	0.4	1	3.6	9
Don't know	0.4	1	0.0	0	0.4	1
Total	74.0	185	26.0	65	100.0	250

Source: Field Study 2012

In FGD, almost all married and unmarried respondents were one voice "premarital sex is not acceptable in our society."

"In our society premarital sex is not acceptable so it is not necessary."

One unmarried FGD participant

"Sex is only for giving birth to a child so it is good after marriage."

One unmarried FGD participant

"In our society, losing virginity is a curse before their marriage."

One unmarried FGD participant

Most of the respondents reported that society's norms, practice, and value are the main reasons to ignore premarital sex.

6.3 Availability and Accessibility of Emergency Contraceptive

Regarding the availability and accessibility of EC, all the respondents who heard about EC were asked where EC is available and is it accessible in Kathmandu valley? Respondent's responses are presented in table 6.6 and figure 6.1.

According to table 69.2 percent of the total respondents responded that EC is available at family planning clinics. Similarly 11.2 and 17.2 percent respondents responded that EC is available at medical shop & with female health volunteers respectively. Ten percent of total respondents responded don't know about it.

Table 6.6- Percent Distribution of Respondent According to Availability of EC

Responses	%*	n
Family planning clinics	69.2	173
Medical shop	111.2	278
Female health volunteers	17.2	43
Don't know	10.0	25

Source: Field Study 2012

**Percent may exceed 100 due to multiple responses*

Figure 6.1- Percent Distribution of Respondent According to Accessibility of EC on Kathmandu Valley

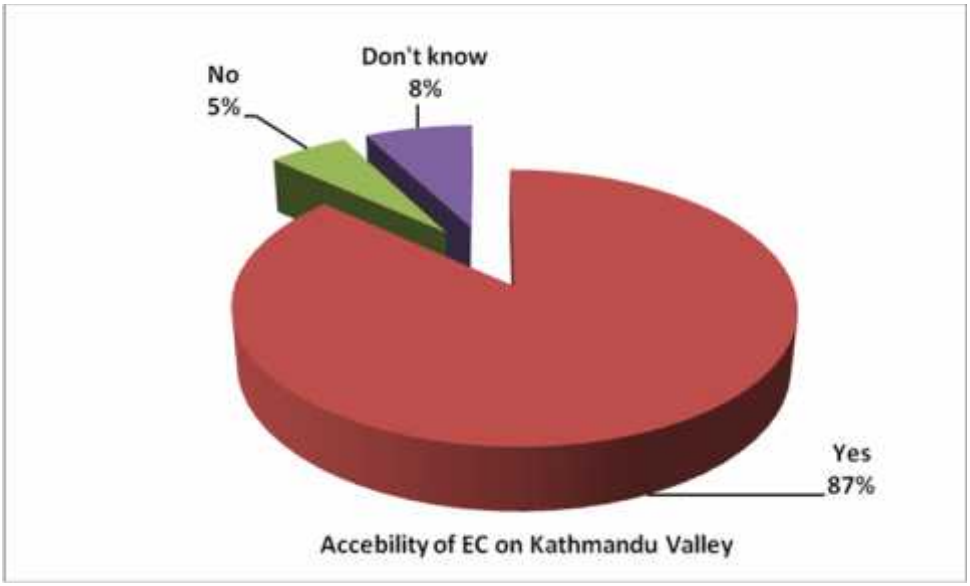


Figure 6.1 shows that the most of the respondents (86.4%) reported that EC is assessable in Kathmandu Valley while remaining (7.6%) were unknown about it.

6.4 Misperception towards Emergency Contraception

To identify misperception towards the EC, some EC related statements were selected from a questionnaire which gives a negative perception towards it.

Among total respondents, 68.8 percent of the respondents thought that easy availability of EC increases risky sexual behavior. Out of the total, more than one fifth (22%) of the respondents thought that EC is especially used by bad women and 39.2 percent agreed that EC should not be prescribed for unmarried girls. Out of 250 respondents, the majority of the respondent (80%) reported that EC leads to increase the bad practices among people.

Table 6.7 Percent Distribution of Respondents on Misperception Related Statements Towards EC

Misperception	%	n
Easily availability of Emergency Contraception is increasing risky sexual behavior.	68.8	172
Especially bad women were used EC.	22	55
Emergency Contraception should not prescribe for unmarried girls.	39.2	98
Emergency Contraceptive led the increase bad practice among people.	80.0	202

6.5 Associations between Level of Knowledge and Perception on Emergency Contraceptive

A level of knowledge of EC was assigned a weight as low and high, reflecting to the number of correct answers. Among all knowledge related answer, less than 7 right answers reflected the Low level of knowledge and more than 6 right answers reflected a high level of knowledge. Similarly, Perception towards EC was assigned a weight as high and low or favorable and unfavorable, reflecting to the right perception towards EC. Among all perception related answer less than 7 right perceptions reflected an unfavorable perception and more than 6 right perceptions reflected a favorable perception.

Hypothesis formulated on the second chapter of this thesis, is tested using chi-square as follows:

Hypothesis-3: There is an association between knowledge and perception towards EC.

There is an association between knowledge and perception towards EC ($p<0.05$). The respondents having an unfavorable level of knowledge of EC have had a low perception (unfavorable) towards EC as well as hiving high level of knowledge tends to high (favorable) perception.

Table 6.8- Association between Level of Knowledge and Perception towards EC

Knowledge	Perception on EC				Total (N=250)		P-value
	Low		High				
	%	n	%	n	%	n	
Low	59.1	13	28.5	65	31.2	78	.003
High	40.9	9	71.5	163	68.8	172	
Total	100	22	100	228	100	250	

6 right answer =Low level of perception (Unfavorable)
More than 6 right answer= High level of perception (Favorable)

CHAPTER SEVEN

USE OF EMERGENCY CONTRACEPTION

7.1 Use of Emergency Contraceptive

According to BMC Women's Health (2009) report EC is intended for occasional or emergency use only and not as a regular means of contraception. EC methods include taking special doses of ordinary birth control pills as well as inserting an intrauterine device (IUD).

Table 7.1- Percent Distribution of Respondents Who Ever Use Any Method of EC

Responses to ever use any method of EC	**n**	**%**
Yes	15	6.0
No	211	84.4
Don't know	17	6.8
Not stated	7	2.8
Used method*		
E-con	0.4	1
I-pills	4.0	10
IUD	0.8	2
pills	0.8	2
Total	100	250

Source: Field study 2012 **Respondents are those who ever use some method of EC.*

In this research, to find out the number of EC users, respondents were asked, "Have you ever used any method of EC to prevent your unintended pregnancy?" Respondent responses are presented in table 7.1. The majority of the respondents (84.4%) did not use any method of EC. Only 6 percent used some method of EC. Among them 4 percent respondents had already used I- pills but some respondents said that they used regular contraceptive (pills) as EC.

During FGD, one married female reported "I-pills are good to prevent unintended pregnancy but its side effect like nausea and vomiting that is so much irritating".

Table 7.2- Percent Distribution of Respondent Who Ever Used Some Method of EC According to Marital Status

Marital status	Ever used any method of EC							
	Yes		No		Don't know		Not stated	
	%	n	%	n	%	n	%	n
Unmarried	2.0	5	65.2	163	4.4	11	2.4	6
Married	4.0	10	19.2	48	2.4	6	0.4	1

Source: Field Study 2012

This table presents, among 15 users 5 unmarried respondents and 10 married respondents were used EC. In FGD unmarried respondents were strongly agreed to pre- marital sex is not necessary in our society.

7.2 Future use of Emergency Contraception

Plan to use EC to prevent their unwanted pregnancy in the near future is the One important indicator to increase usage rates of the EC as well as the level of knowledge.

Table 7.3- Percent Distribution of Respondents Who Intended to Use Some Method of EC in Near Future

Intended some method of EC in the near future	%
Yes	72.0
No	13.6
Don't know	9.6
Not stated	4.8
Total	100.0

Source: Field Study 2012

Table 7.3 indicates that 72 percent of the total respondents agreed to use EC services in case of preventing their unintended pregnancy in the near future; whereas 13.6 percent of the respondents denied its use. It is followed by 9.6 percent who were unknown about it and 4.8 percent of the respondents did not want to clarify their statement.

7.3. Respondent's Suggestion to promote the use of EC

Table 7.2 shows that most of the respondents 87.2 percent replied that Emphasizing family planning education is needed to promote the use of EC. But remaining respondent, they were still in confusion about it. Surprising results are that 7.2 didn't know and 5.6 percent was reported 'no' in the statements.

FGD respondents are also suggested emphasizing family planning education, make an academic syllabus including EC and family planning subject matter and focusing on awareness program on it to promote the use of EC.

Table 7.4- Percent Distribution of Respondent's on What Should be Done to Promote the Use of EC

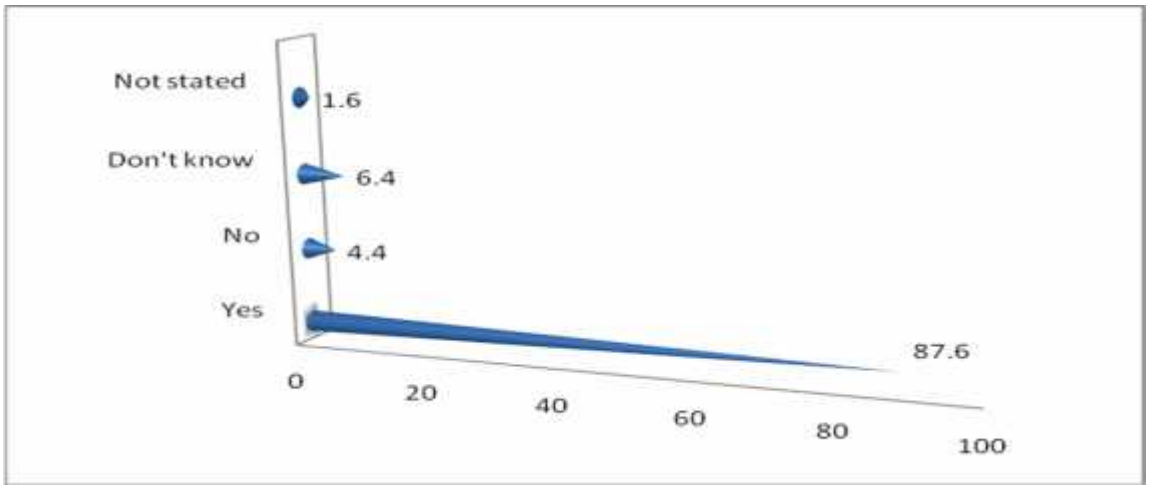
What should be done to promote the use of EC	Responses (%)			
	Yes	No	Don't know	Not stated
Emphasizing family planning education	87.2	5.6	7.2	-
Trainings on EC related topic	87.6	4.4	6.4	1.6

Source: Field Study 2012

Figure 7.1 shows that most of the respondents 87.6 percent replied Trainings on EC related topic are needed to make favorable perception towards it. But remaining

respondent, they were still in confusion about it. Surprising results are that 6.4 didn't know and 1.6 percent was replied they don't want to give any response about it.

Figure 7.1- Percent Distribution of Respondent's about Trainings on EC Related Topic is Needed to Promote the Use of EC



Source: Field Study 2012

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.1 Summary

The study is entitled "Knowledge and Perceptions of Emergency Contraception among Female Undergraduates in Kathmandu Valley" which conducted in two colleges of the Kathmandu Valley to find out the level of knowledge on EC and perception towards it. According to the objectives qualitative and quantitative nature of data were collected through questionnaire collection and FGD.

The parameter of the study is basic information related to EC, acceptable time for EC, Correct schedule to use EC, availability and accessibility of EC, side effects and benefits of EC as well as perception towards it. The results of the study are found as follows:

Out of the total respondents, the highest percent (62%) belonged to age group 20-24, similarly one fifth of the respondents (20.8%) age group of 15-19. The mean age of respondents was 22.01 years. More than half of the respondents (50.8%) were from nuclear families. As well, 92.8 percent belonged to Hindu religion, 6 percent were from Buddhist and 1.2 percent of Muslims. Similarly, out of the total respondents, Majority of the respondents (77.6%) were from Non-Janjati and 22.4 percent from Janjati. According to the birth place of respondents, 14.4 percent were from the Kathmandu Valley. Similarly, 74 percent of the respondents were unmarried followed by 26 percent who were married.

Two Focus Group Discussions (FGDs) conducted to triangulate the findings. In total 20 participants involved in two focus group discussion. There are 10 participants in each FGD. Married and unmarried participants were placed in each group. Participants of unmarried FGD were about 18-22 age-groups and another FGD with married women were about 26-30 age-group. Most of the respondents were from joint family. More than 90% belonged to Hindu religion. All married women had at least a child and their husband's level of education was SLC or higher. FGD participants

claimed that the proper age at first marriage for women is 20-25 year. Data shows that there is still practiced of early marriage although the concept about age at marriage is 20^{+}.

Out of total respondents nearly one third (31.6%) gave the correct answer on the meaning of the EC, i.e. EC is used after unprotected intercourse to avoid unwanted pregnancy. Likewise 76 percent respondents gave the right answer; women are eligible for EC in term of sex. Similarly, Among 250 respondents 72.4 percent responded right answer about the indication of EC. More than one third (34.8%) of the total respondents gave right answer on a dosing schedule. While only 18.4 percent of total respondents reported that as soon as possible after unprotected sex is the most acceptable time for women to take EC.

The majority of the respondents (84.4%) did not use any method of EC. Only 6 percent used some method of EC. Among them 4 percent respondents had already used I- pills. Some respondents said that they used another method as EC which are the wrong method. The respondents did not have a clear concept on EC and other regular contraception hence they responded on regular pills as EC.

Most of the respondents (54.8%) reported I-pills as one method which is used as EC. Likewise more than half of the respondents (51.6%) reported oral contraceptive pills and more than one fourth (26.8%) said E-con. But some of respondents' responded condom, Diaphragm, Norplant and Depo-Provera also used as EC method.

Out of unmarried respondents, 59.2 percent was aware about side effects of EC while more than two fifths of the respondents (40.8%) were unknown about it. Similarly among 26 percent married respondents, 6.8 percent of the respondents knew about nausea and vomiting, 1.6 percent heard about breast tenderness, 6.4 percent headache and dizziness and 5.2 percent heard about irregular vaginal bleeding as the side effects after the use of EC. Among unmarried respondents one fifth of the respondents (20.4%) heard about nausea and vomiting, 13.2 percent heard about irregular vaginal bleeding, 11.6 percent heard about headache and dizziness and only 6.4 percent heard about breast tenderness as side effects of EC.

In case of misperception towards EC, 68.8 percent of the respondents thought that easy availability of EC increases risky sexual behavior. Out of the total, more than one fifth (22%) of the respondents thought that EC is especially used by bad women and 39.2 percent agreed that EC should not be prescribed for unmarried girls. Out of 250 respondents, the majority of the respondent (80%) reported that EC leads to increase the bad practices among people.

Most of the respondents 87.2 percent reported that Emphasizing family planning education is needed to promote the use of EC. Similarly, 87.6 percent of total respondents reported that trainings on EC related topics are needed to make favorable perception towards it. FGD respondents are also suggested emphasizing family planning education, make an academic syllabus including EC and FP subject matter and focusing on awareness program on it to promote the use of EC.

Finally, there is an association between marital status and the level of knowledge on EC ($p<0.05$). Similarly, There is no association between caste and the level of knowledge on EC ($p>0.05$).

Similarly, there is an association between knowledge and the perception towards EC ($p<0.05$). The respondents having low level of knowledge of EC have had a low perception (unfavorable) toward EC as well as hiving high level of knowledge tends to high (favorable) perception.

8.2 Conclusion

After reviewing the above finding and summary; the conclusion can be drawn as knowledge and perception on EC especially female undergraduates of Kathmandu Valley. This study finding suggests that a correct knowledge of EC is lacking among youth. The great potential of emergency contraception to prevent unintended pregnancies is far from being realized in Kathmandu Valley.

Undergraduate's female students of Kathmandu Valley are all most heard about EC but they have not adequate knowledge about it. Only a few respondents have adequate knowledge about EC. According to questionnaire fill up and FGD, I found they have

knowledge about the meaning of the EC but not about women are eligible for it. Similarly, know about types of EC but don't know about the timing or dosing of EC.

There are many misperceptions toward EC, 68.8 percent of the respondents thought that easy availability of EC increases risky sexual behavior. Out of the total, more than one fifth (22%) of the respondents thought that EC is especially used by promiscuous women and 39.2 percent agreed that EC should not be prescribed for unmarried girls. Out of 250 respondents, the majority of the respondent (80%) reported that EC leads to increase the bad practices among people.

On FGD married women are discussed more openly than unmarried women. In our society still people think sex is secret topic. They do not want to discuss on this topic. They learn from society, that discussion on sex related thing or topic is shocking behavior. But most of the respondents have one voice on "Behebari bis barsa pari" and "Premarital sex should not obligatory for our society". Although there is still higher the number of early marriage as well as pre-marital sex existing in our society. This may the results of existing social norms, value and traditional thought towards sexual matter. In the duration of FGD most of the respondents did not want to discuss on this matter but in duration of the interview they are fill impracticable thing.

Little knowledge on each subject is more dangerous than no knowledge at all. All most all respondents heard about EC but they have not adequate knowledge about it. So there is an urgent need to educate adolescents and youth about EC with emphasis on available methods and correct timing of use. Promote and advance provisions of dedicated emergency contraceptive would very likely enhance their use, just as in developed countries. So to reduce unintended pregnancy need to promoting training, awareness program and advertising on EC related matters through different sources in Kathmandu valley.

8.3 Recommendation

On the basis of the finding, the following recommendations are made:-

1. Similar type of study could be effective among youth and adolescents including boys as well.
2. Most of the women rejected to participate in the discussion on EC or other Reproductive Health (RH) matter because of the concept that is socially constructed so, at first it aims to focus on awareness program in elsewhere.
3. Mass media can play vital role in informing women about EC, it should be included in the program's scale-up.
4. It is necessary to provide training to arouse awareness even "so called" upper caste.
5. Finally, it is good to include EC and family planning matter on academic syllabus.

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KNOWLEDGE AND PERCEPTIONS OF EMERGENCY CONTRACEPTION AMONG FEMALE UNDERGRADUATES IN KATHMANDU VALLEY

(A Case Study of PadmaKanya Multiple Campus and Ratna Rajya Laxmi Campus)

Central Department of Population Studies

Faculty of Humanities and Social Science

INTRODUCTION AND CONSENT

Hello, my name is Gita Sharma. I am thesis year student of Central Department of Population Studies. I am conducting a survey about Emergency Contraceptive in Kathmandu. I would like to ask you some questions about Emergency Contraceptive. The questions usually take about 15 to 30 minutes. All of the answers you give will be confidential and will not be shared with anyone. No part of this interview is being recorded in tape or video.

Your participation in this survey is voluntary. I would appreciate if you answer all questions but remember that you are free to withdraw from the interview. If you feel uncomfortable in any question; you can refuse to give answer. However, I hope you will in the survey since your views are important.

Socio-Demographic Information

College Name: - **Date:-**

No.	Questions	Categories	Code	Skip
1	How old were you at your last birthday?	Age in completed year.		
2	In which district were you born?	……		
3	What type of family do you have?	Joint Nuclear	1 2	
4	What is your caste/ethnicity?	Brahman Chhetri Tharu Tamang / Magar Other (Specify)……	1 2 3 4	
5	What is your religion?	Hindu Buddhist Muslim Other (Specify)……	1 2 3	
6	What is your marital status?	Unmarried (Never married)	1 →	Knowl

		Married and living with spouse Separated Divorced Widowed Other (Specify)……	2 3 4 5	edge related questi on
7	How old were you when you got married?(first)	Age in year		
8	Which academic level did your husband completed?	No education Primary Education Some Secondary SLC or Higher	1 2 3 4	
9	Have you ever given a live birth?	Yes No	1 2 →	Knowl edge related questi on
10	How many children have you had?	Son Daughter	1 2	

Knowledge on Emergency Contraception

No.	Questions	Categories	Code	Skip
1	Have you ever heard about Emergency Contraception (EC)?	Yes No	1 2 →	 stop interview
2	From which sources were you heard about EC? (Multiple Answers)	TV Radio Relatives/ Parents Boyfriend/Partner Female friends Internet webpage Magazines /Newspapers Healthcare provider	1 2 3 4 5 6 7	

		From course/Formal lecture Poster/Holding Board Street Drama Shop Theater Other (Specify)……. Don't know	8 9 10 11 12 13 98	
3	What is the best method to terminate the pregnancy?	Providing sexual and reproductive information to aware adolescence Using the appropriate method of EC Using other family planning methods like condom and others Abortion Home remedies (Specify)…… Other (Specify)…… Don't Know	1 2 3 4 5 8	
4	What do you understand by EC?	Contraception, used before unprotected intercourse to avoid unwanted pregnancy	1	

		Contraception, used for birth spacing Contraception, used after unprotected intercourse to avoid unwanted pregnancy Other (specify)…….. Don't know	2 3 8	
5	Do you know about the family planning method, which are used as EC? (Multiple answer)	Oral Contraceptive Pills Copper-T Intrauterine Device(IUD) Oral Contraceptive Pills and Copper-T both Norplant and Depo-Provera Condom, Diaphragm E-con I-pills Other (Specify)……. Don't Know	1 2 3 4 5 6 7 8	
6	Who are eligible for EC in terms of sex?	Male Female Don't Know	1 2 8	

7	What are the indications of EC? (Multiple answer)	Unprotected sex Ruptured of condom For rape victims Regular family planning method For population control To avoid unwanted pregnancies Other (Specify)……..... Don't know	1 2 3 4 5 6 8	
8	What is the most acceptable time for women to take Emergency Contraceptive Pills?	As soon as possible of unprotected intercourse No time limits Within 24 hours Within 72 hours Don't know Not stated	1 2 3 4 8 9	
9	Where Emergency Contraceptive is available? (Multiple answer)	Family planning clinics Medical shop Female health Volunteers Other (specify)……. Don't know	1 2 3 8	

10	How long after unprotected sex, the 1st dose of Emergency Contraceptive Pills should be taken?	No time limits Within 24 hours Within 72 hours After 12 hours Don't know Not stated	1 2 3 4 8 9	
11	How many hours interval is required for 2nd dose of Emergency Contraceptive Pills?	After 12 hours After 24 hours After 48 hours Don't know	1 2 3 8	
12	Is the Intra Uterine Device (IUD) also an effective method of EC?	Yes No Don't know	1 2 8	
13	How long after unprotected sex IUD can be inserted?	No time limits Within 3 days Within 5 days Don't know Not stated	1 2 3 8 9	
14	What are the side effects of Emergency Contraceptive?(Multiple answer)	nausea and vomiting Breast tenderness Headache and dizziness	1 2 3	

		Irregular vaginal bleeding Other (specify)…… Don't know	4 8	
15	Is it necessary to seek medical advice after taking Emergency Contraceptive?	Yes No Don't know	1 2 8	
16	Who should not use Emergency Contraceptive Pills?(Multiple answers)	Who are pregnant Vaginal bleeding cause unknown Allergy to product; Pills and copper-T Don't know	1 2 3 8	
17	Who should not use Emergency Contraceptive IUD?	Those who have raped Those who have multiple sexual partners Don't know	1 2 8	
18	Can Emergency Contraceptive prevent sexually transmitted infections like syphilis, gonorrhea and HIV/AIDS etc?	Yes No Don't know	1 2 8	
19	Do you know about benefit of using	Effective service	1	

	EC?(Multiple answers)	Easy to use Reduce side effect Reduce unintended pregnancy Others (specify)…… Don't know	2 3 4 8	
20	Have you ever used any method of EC?	Yes No Don't know Not stated	1 2 8 9	→ Perception related question
21	If yes, which method did you used?	……		
22	Is Emergency Contraceptive easily accessible in Kathmandu Valley?	Yes No Don't know Not stated	1 2 8 9	

Perception of Emergency Contraception

Please read statements given below and give your responses by placing a circle against the statement in the appropriate column of the code.

No.	Questions	Categories	Code
1	Taking EC after unprotected sex is much better than the regular use of contraceptive method.	Yes No	1 2

		Don't know Not stated	8 9
2	Emergency Contraception should not prescribe for unmarried girls.	Yes No Don't know Not stated	1 2 8 9
3	Emergency Contraceptive led the increase bad practice among people.	Yes No Don't know Not stated	1 2 8 9
4	To prevent unwanted pregnancy, Emergency Contraceptive is needed.	Yes No Don't know Not stated	1 2 8 9
5	Pre marital sex is necessary or appropriate in our society.	Yes No Don't know Not stated	1 2 8 9
6	Pregnancy test should be negative before prescribing Emergency Contraception.	Yes No Don't know Not stated	1 2 8 9

7	Women faced unwanted pregnancies because of forced to have sex with her husband/partner.	Yes No Don't know Not stated	1 2 8 9
8	Especially husbands are take decision about use of Emergency Contraceptive.(Only for married)	Yes No Don't know Not stated	1 2 8 9
9	All spouses are discussion on the matter of Emergency Contraception.	Yes No Don't know Not stated	1 2 8 9
10	Easy availability of EC increases risky sexual behavior.	Yes No Don't know Not stated	1 2 8 9
11	Wider use of Emergency Contraception is less expensive and safe than abortion and child bearing.	Yes No Don't know Not stated	1 2 8 9
12	Emphasizing family planning education is needed, to promote the use of EC.	Yes No	1 2

		Don't know Not stated	8 9
13	Trainings on EC related topic are needed to make favorable perception towards it.	Yes No Don't know Not stated	1 2 8 9
14	Women can't buy EC form shop because of being stigmatized.	Yes No Don't know Not stated	1 2 8 9
15	Especially promiscuous women were used EC.	Yes No Don't know Not stated	1 2 8 9
16	At last, Are you ready to use EC services, in case of prevent your unintended pregnancy?	Yes No Don't know Not stated	1 2 8 9

KNOWLEDGE AND PERCEPTION OF EMERGENCY CONTRACEPTION AMONG FEMALE UNDERGRADUATES IN KATHMANDU VALLEY

(A Case Study of Padma Kanya Multiple Campus and Ratna Rajya Laxmi Campus)

Central Department of Population Studies

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Focus Group Discussion (FGD)

FGD is a social science research method, which goes into the depth of the issue. It gives detail information behind the quantitative indicators. It deals only with descriptive data or questions that are answered with ling label responses, such as why and how.

FGD Questions:-

1. What is the appropriate age of marriage in your opinion?
   1.1 Why do you think so?
   1.2 What are the main advantages of an early marriage you think of?
   1.3 What are the main disadvantages of an early marriage you think of? Probe if there is any other…
   1.4 Although most of people say that people should marry only after 20 years of age, they marry early. Why is there is a differences in saying and doing?
2. What is your opinion on the use of Emergency contraception (EC) by married and unmarried youths to avoid their unintended pregnancy?
   2.1 Why?
   2.2 What would be the reaction of your society, parents and other family members if married and unmarried couples use EC to terminate the unintended pregnancy?
   2.3 If approves; why?
   2.4 If disapproves; why?
3. What is your opinion on spousal communication on the use of family planning methods and number of children?
   3.1 Favorable; why?
   3.2 Unfavorable; why?

4. All spouses are discussion on the matter of Emergency Contraception. Are you agreeing with this statement?
   4.1 If did not, why?
5. Who decides mostly for the use and non use of any family planning methods in your family?
   5.1 Why?
6. Women faced unwanted pregnancy because of forced to have sex with her husband or partner. Are you agreeing with this statement?
   6.1 If did not, why?
7. Pre marital sex is necessary or appropriate in our society. Are you agreeing with this statement?
   7.1 If not; why?
8. What should be the main reason for non use of EC in our society?
9. Are you thinking EC is same as abortion?
   9.1 If yes/no, Why?
10. Mainly EC are prescribing for women. Is there women can go for buy and decided to use or non use of EC?
    10.1 If yes/no, why?
11. In your opinion, what should we do for increase the use of EC?