

ST JOHN'S UNIVERSITY OF TANZANIA



MASTER OF ARTS IN COMMUNITY DEVELOPMENT PROGRAMME

**THE KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS
UNPROTECTED SEX AND EMERGENCY CONTRACEPTIVES AMONG
FEMALE UNIVERSITY STUDENTS**

INTANZANIA:

A CASE OF ST JOHN'S UNIVERSITY OF TANZANIA

RAJABU MOHAMMED

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE MASTER DEGREE OF ARTS IN COMMUNITY
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CERTIFICATION

I, Rajabu Mohammed the undersigned, certify that I have read and hereby recommend for acceptance by St John's University of Tanzania a dissertation entitled; **the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students of Tanzania: A case of St John's university of Tanzania** in partial fulfillment of the requirements for the award of the degree of Master of arts in Community Development of St John's University of Tanzania.

.....

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DECLARATION

I,....., declare that this thesis is my own work. It has not been and will not be presented for any other course of study.

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ABBREVIATIONS

SJUT	St. John's University of Tanzania
EC	Emergency contraceptives
DV	Dependent Variables
IV	independent Variables
ECPs	Emergency contraceptive pills
FMOH	Federal ministry of health
HBM	Health belief model
COC	Combined oral contraceptives
POP	Progesterone only pills
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immunodeficiency Syndrome
IUCD	Intra uterine contraceptive Device
IEC	Information education and communication
IPAS	International pregnancy advisory service
IUCD	Intra-uterine contraceptive device
KAP	Knowledge attitude and practice
NGO	Non-governmental organisation
RH	Reproductive health
UN	United nation
UNICEF	United Nations international children's emergency fund
WHO	World health organization

ABSTRACT

This study intended at assess the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female University students in Tanzania and was done at the St John's University of Tanzania among female students aged 18 years and above. The specific objectives of the study included; assessing the students' knowledge about Emergency Contraceptives (EC), assessing students' attitudes about sex and how can these affect their use of Emergency Contraceptives, assessing the utilization level of emergency contraceptive, and lastly utilizing findings to develop practical recommendations to the female students. In so doing, the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female University students were identified by looking at People with whom the respondent lived with, Respondents' Attitude towards sex, Awareness about emergency contraceptives among female students, Knowledge about emergency contraceptives among female students, Attitude towards emergency contraception among SJUT female students, sexual practice among female students, Practice on emergency contraception among SJUT female university students. The study was a quantitative and used descriptive design that provided valuable baseline information. The data collected was primary in nature and was collected through questionnaires. The major findings of the study were that; majority of the respondents were below 24 years of age, most of the respondents were unmarried different respondents lived with different people such as family, friends and others alone, it was all right to have a boyfriend during University life, it is wrong for unmarried students to kiss each other, it was unnatural for female to initiate sex, it was better to abstain from sex until marriage, extra marital sex led to marital problems, students had a favorable attitude towards emergency contraceptives, respondents got information about emergency conceptive from leaflets, radio and TV, from university or college, respondents used pills contraceptives as emergency contraceptives, respondents used drug the same as in ordinary contraception and others used the same drug but stronger, the time limit for taking emergency

contraceptive pills after unprotected sex was between within 12 hours and 72 hours (3 days),majority of the respondents acknowledge that the time limit for having an IUD (coil) fitted after unprotected sex was 72 hours(3 days) and below, most respondents obtained emergency contraception from Hospital /health centre, Community worker, private clinic, Pharmacy and supermarket, IUCD was effective in preventing a pregnancy, emergency contraceptives pills were effective in preventing pregnancy, emergency birth control methods were safe for most women, respondents disagreed that the provision of EC to students would encourage promiscuity. The study recommended that St John's University of Tanzania needs to strengthen Information education and communication (IEC),health sector should develop a number of intervention steps/work to do in terms of seminars/workshops, enlightenment, orientation and educating the students, EC methods especially Emergency contraceptive pills (ECPs),condoms should be available at all points of drug dispensing institutes including private, NGO and Government pharmacies, and clinics, Information education and communication (IEC) materials like pamphlet, news papers, posters etc should be available in the SJUT library, Counseling should be conducted in view of supporting and encouraging.

CHAPTER ONE

BACKGROUND

1.1 Chapter overview

This chapter presents the introduction and is divided as follows; background to the problem, statement of the problem, objectives of the study, research questions, and significance of the study, and finally the chapter summary.

1.2 Background of the problem

According to World Health Organization, (2012) Emergency contraception refers to the methods of contraception that can be used to prevent pregnancy in the first few days after intercourse. It is intended for emergency use after unprotected intercourse, contraceptive failure or misuse (such as forgotten pills or torn condoms), rape or coerced sex. Emergency contraception are a times known as post-coital contraception.

Emergency contraception (EC), is also looked at as method of preventing unwanted or unplanned pregnancy that result from unintended sexual activity, contraceptive malfunction, or sexual assault (Gebreyohannis,2009).

Emergency contraception is effective only in the first few days after intercourse before the ovum is released from the ovary and before the sperm fertilizes the ovum. Emergency contraceptive pills cannot break off an established pregnancy or harm a developing embryo (WHO, 2012).

Center for reproductive health (2008), outlined some of examples of the situations when women consider emergency contraception and they included; when she has a sexual encounter and uses contraception, but the condom breaks or the contraception failure, when she is raped in her home, around the street, or in an armed conflict, when she does not want to become pregnant, when she faces health risks if she were to become pregnant, and lastly when she is being kept in a refugee camp and cannot effectively plan for her future.

According to Center for reproductive health (2008) 210 million women around the world are likely to become pregnant each year, but 80 million of those pregnancies are unintended and unplanned. Unintended pregnancies result in 19 million unsafe abortions annually worldwide and lastly pregnancy-related causes kill 530,000 women every year.

Recently many studies focusing on evaluating the knowledge, attitude and practice towards sex and emergency contraceptives among female university have been conducted and have received increased attention over the years. However, little has been done on female university students in Tanzania. However, with the increasing unwanted and unplanned pregnancies among female students, it is justified that knowledge, attitude of female students about emergency receives increased investigation from both scholars and industry specialists. For example;

Kavin, et al. (2000) in their study intended to assess knowledge, attitudes and practices of emergency contraception among the college students. Data was collected through self administered questionnaires. The study findings revealed that females in up county especially those of child bearing age group, had very little knowledge about emergency contraception. However they were extremely in need of getting it and they were also in need of knowledge and dispensing units. There were highly increased numbers of unintended and unplanned pregnancies among college students (as reported by the discipline master). Consequently this was good evidence that there are cases of abortions which are unknown.

Venkat, et al. (2014), in their study that intended at finding out the Knowledge, attitude and practices of emergency contraception among female medical students of Andhra Medical College, Visakhapatnam. The study used cross -sectional and conducted among 150 final and 100 first female students. Data was collected by using a structured -questionnaire and the results were analyzed with the help of personal computer. The findings of the study shows that both final and first year students were by and largely very positive towards emergency contraception, but lacked

accurate knowledge about effectiveness, mechanism of action and specific information regarding time frame. Furthermore the findings also showed that continuous efforts were needed to ensure appropriate knowledge and practice of emergency contraception and it was highly recommended that interventions aimed to combat maternal mortality through contraception practice are needed to be sensitive of such information specifically to the targeted groups.

Friedman, et al.(2003) noted that when emergency contraception are used within 72 hours after sexual intercourse, pills have the capacity to prevent pregnancy by 75-85% and with the use of Intra uterine devices (IUCDs), unwanted pregnancy can be prevented by as much as 99%.

Lemma (2009) in his study found that although options for and information about EC have increased, additional efforts are needed to improve women's access to this important supportive method of birth control.

Tilahun ,et al. (2010) in their study that was carried out in Ethiopia noted that for most of the youth, college who represented a shift towards greater independence from home and school settings, creates an opportunity to form new friendships, and for several, likelihood to experience romantic and/or sexual relationships. Moreover the study also found that Higher Education students' unwanted pregnancies cause a major public health problem in the highly developed and developing countries and are linked with outlying reaching effects such as jeopardizing the students' educational progress and future careers. These pregnancies are mostly unplanned and unintended and many are terminated either legally or illegally.

Wegene and Fikre (2005), in their study intended at assessing the knowledge, attitude and practice of emergency contraceptives among young females in Addis Ababa University and Unity University College. The study used a cross-sectional survey. The study found out that about 43.5% (95% CI 40.0 - 47.0%) of the students accepted that they have heard about

emergency contraceptives. When asked about specific types of emergency contraceptives, among those who have ever heard of emergency contraceptives, 279 (82.8%) mentioned pills and 115 (34.1%) mentioned intrauterine contraceptive devices (IUCDs). About 53% (95% CI 49.1-56.1%) of the students had positive attitude towards emergency contraceptives and only 4.9% (95% CI 3.4-6.4%) respondents reported that they had used emergency contraceptive methods before. In conclusion, the study noted that in the face of significant risk of unwanted pregnancy and unsafe abortion among the sexually active students, the knowledge and practice on emergency contraceptive was very low. It was recommended that there was a need to raise awareness about emergency contraceptives as an opportunity with other contraception methods and introducing of the family life education program in schools to include among other information on emergency contraceptive. Moreover, existing "Reproductive Health Clubs" in high schools could be the setting for disseminating similar information.

Onyensoh, et al. (2012) in their study carried out in South Africa found that majority of the respondents agreed that contraceptives were easily accessible. Pupils required extra information on contraceptives from their doctors. The study showed that the pupils in the rural areas are more knowledgeable of contraception, and started sexual intercourse at a young age, and was generally inconsistent in their use of contraceptives. The study noted that both knowledge and awareness do not always lead to the good practice with regard to contraception or in relation to limiting the number of sexual partners. Furthermore the study recommended that stakeholders in teenager sexual health education need to be aware that providing information to this young age group was inadequate to affect behavioral change. Moreover other methods of influencing behaviour and reducing unwanted pregnancies, STIs and HIV/AIDS are needed to be discussed.

Kolawole, et al. (2011) in their empirical study investigated the issues surrounding emergency contraceptives and problems that characterized the use of EC among female students in tertiary institutions (Ahmadu Bello University, Zaria). The study primarily explored the knowledge of female

students about EC, knowing fully that almost all the female students especially those who were engaged in pre-marital sex use it. The findings of the study showed that the knowledge of female students about emergency contraceptives was not too encouraging because they did not know what to use and were not continuously ready or prepared for the usage of any time they wanted to assure their sexual urge but rather involved in EC any time they have unprotected sex with their partners.

Rahamefy, et al. (2008), in their study carried out among university students in Madagascar revealed that 29% of the students reported to have 2 or more sexual partners and only 13.5% were always using condoms. However, a slightly higher proportion (48.9%) of condom use was reported among university students in Kampala (Byamugisha, 2006).

Tanzania Demographic and Health Survey (2010), in this study reported that there was contraceptive frequency use rate of 19% among female aged between 20 and 24 years, and the teenager pregnancy rate of 44%

National Bureau of Statistics Tanzania, (2011) in a study carried out in Tanzania noted that there was 34.4% contraceptive prevalence rate among women of reproductive age between 15–49 years.

Somba, et al. (2014) in their study carried out in Tanzania aimed at assessing sexual behaviour, contraceptive knowledge and use among female undergraduates' students of Muhimbili and Dar es Salaam Universities in Tanzania. This was a cross-sectional analytic study conducted among undergraduate female students in the two Universities located in Dar es Salaam region, Tanzania. Self-administered questionnaire was given to 281 students. Data was analyzed using Statistical Package for Social Science (SPSS) for Windows version 17.0. The study findings showed that the knowledge about contraception among the female students was high, majority of the students were sexually active and started sexual activity at earlier age. However, the rate of contraception use was still low. The low contraceptive practice suggested that the need for sexual and reproductive health education program to promote use of contraceptive

services in the study settings. The study recommended that the reproductive health education programs should include the importance of using dual contraceptive methods as a means to prevent STI'S and HIV/AIDS transmission as well as prevent pregnancy.

Hinju, et al. (2005); in their study carried out in Tanzania aimed at assessing knowledge, attitudes and practices of emergency contraception among the college students in Songea District. The study was descriptive, cross-sectional in design. Data was collected using self administered questionnaires. The study findings showed that females in up country particularly those of child bearing age group, had very little knowledge about emergency contraception. However they were highly in need of getting it and they were also in need of knowledge and dispensing units. The study also found that there were increased numbers of unwanted and unplanned pregnancies among college students (as reported by the discipline master). Therefore this was a good expression that there were cases of abortions which were unknown.

From the facts put forward around the introduction above, this study assessed the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female University students of Tanzania.

1.3 The research problem

At the local, regional, national and global levels, unintended pregnancy and unsafe abortion takes a tremendous toll on girls, women, families, communities, health systems and nations. The full extent of its impact is difficult to measure, both because unintended pregnancy and abortion remain taboo in most societies and because few health systems or countries effectively collect data on the subject (IPAS, 2007). Ending the silent pandemic of unsafe abortion which is still a major problem in the developing countries is an imperative public health and human rights urgent. Every year about 19 to 20 million abortions are done by individuals without the basic skills or in environments below minimum medical standards, or both (Senbeto et, al. 2005). Nearly all unsafe abortions (95%) are in developing

world (Sushanta & Kathryn, 2009) and 68,000 women are estimated to die as a result (Grimes 2006). University students most times resort to unsafe abortion since they have more unwanted pregnancies as a result of contraceptive non-use, misuse, and method failure. Generally risk of death from unsafe abortion is by far the highest in Africa, where the fatality case rate reaches 7 deaths per 1000 unsafe abortions (UN, 2004; Desta & Regassa, 2011). Since African and in this case Tanzania has very few women who have reached university there is in need to do more counseling, prescribing or advocacy. Female university students most of them being young adults, they are also users of EC as they are at a risk of unintended pregnancies. Therefore determining and improving the knowledge, attitudes and practices towards sex and emergency contraceptives among female university students could be an important strategy in planning for means of increasing the use of EC which will ultimately contribute to the reduction of un intended pregnancies and hence maternal morbidity and mortality due to unsafe abortions. This study therefore aims at determining the knowledge, attitudes and practices towards unprotected sex and emergency contraceptives among female university students and therefore recommend on the ways of improving it so as to reduce the unintended pregnancies and unsafe abortions with its consequences to the person who has practiced it and Tanzania as a nation at large.

1.4 Objective of the study

The study aims at addressing the following general and specific objectives.

1.4.1 General Objective

The main objective of this study is to assess the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female University students in Tanzania.

1.4.2 Specific objectives of the study

The specific objectives of the study include:

- i. To assess student's knowledge about emergency contraceptives among St John's University of Tanzania female students.

- ii. To assess student's attitudes about sex and how can these affect their use of emergency contraceptives among St John's University of Tanzania female students.
- iii. To assess the utilization level of emergency contraceptive among the St John's University of Tanzania female students.
- iv. To utilize findings to develop practical recommendations to the St John's University of Tanzania female students.

1.5 Research questions

The study is set forth to answer the following research questions:

- i. What is the students' knowledge about emergency contraceptives among St John's University of Tanzania female students?
- ii. What is the students' attitude about sex and how can these affect their use of emergency contraceptives among St John's University of Tanzania female students?
- iii. What is the utilization level of emergency contraceptive among the St John's University of Tanzania female students?
- iv. What are the recommendations to the St John's University of Tanzania female students on the knowledge, attitude and practice towards sex and emergency contraceptives?

1.6 significance of the study

The study would have the following contributions to organization's performance, theory and to other researchers.

- i. The research would broaden up the existing literature in similar area of study.
- ii. The research would be useful to the organization itself and even to other external users such as general public.
- iii. The gaps identified in the research would create a footstep to potential researchers who would be interested in undertaking research on the same subject matter of inquiry.

1.7 Chapter summary

This chapter describes in depth the background of the study concerning assessment of the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female University students of Tanzania with regard to worldwide perspective to local area where study was conducted.

Furthermore statement of the problem is provided in order to clarify the need to research this area. Not only that but also both general objective and specific objectives was provided in order to determine the essence of the study and objectives expected to be achieved.

With intention of getting the variables for data collection, research questions were constructed with regard to specific objectives. Finally significance of the study was provided as a way of revealing the advantages that every part involved in this study will benefit from in way or another.

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter overview

This chapter presents a review of the literature on the topic of the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students as in the previous studies and the gaps to be filled by this research study are also explained. The specific areas covered here include the definition of key terms, theoretical framework, conceptual frame work, sex, emergency contraceptives and the empirical studies.

2.2 Definition of key items and concepts

2.2.1 Contraceptives

These are birth controls that prevent pregnancy by interfering with the normal process of ovulation, fertilization, and implantation. The main purpose of contraception is to help any woman who wants to prevent pregnancy and they are a reliable form of birth control. (NWHRC Health Center, 2004)

2.2.2 Unprotected sex

This refers to an act of sexual intercourse or sodomy performed without the use of a condom, hence involving the risk of sexually transmitted diseases unwanted pregnancy. (Collins English Dictionary, 2012).

2.2.3 HIV/AIDS

Human immune deficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a continuum of conditions caused by infection with the human immunodeficiency virus (HIV). (Sepkowitz, 2000 & Alexander et al, 2010).

It may also be referred to as HIV disease or HIV infection. Following initial infection, a person may experience a brief period of influenza-like illness. This is typically followed by a prolonged period without symptoms. As the infection proceed, it interferes more and more with the immune system,

making the person much more vulnerable to common infections, like tuberculosis, as well as opportunistic infections and tumors that do not usually affect people who have working immune systems. The late symptoms of the infection are referred to as AIDS. This stage is often associated by an infection of the lung known as pneumocystis pneumonia, severe weight loss, skin lesions caused by Kaposi's sarcoma, or other AIDS-defining conditions (Wilhelm, 2008).

2.2.4 Adolescents

The United Nations define adolescents as individuals aged between 10 and 19 years: This basically means those in the second decade of their lives (UNICEF, 2011). In Tanzania, most of the university students are of 17 years and above. In this study, students below 18 years of age will be excluded for ethical reasons.

2.2.5 Knowledge

Knowledge refers to a theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic.(oxforddictionaries.com). Knowledge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning (Business dictionary, 2016).

Knowledge about Emergency Contraceptives refers to knowing the different types of EC, mode of action, how and when to use EC and their effectiveness, side-effects and contraindications (Burns & Grove, 2009).

2.2.6 Attitude

This is a hypothetical construct that represents an individual's degree of like or dislike for something. Attitudes are generally positive or negative (favourable or unfavourable) views or evaluations and reactions to objects, a person, place, thing, or aspects of the world, including abstracts ideas and social policies (Atkinson & Hilgards, 2009). This is often referred to as the

attitude object. People can also be conflicted or hesitant toward an object, meaning that they are at once possessing both positive and negative attitudes toward the item in question. Attitudes are judgments. They develop on the ABC model (affect, behaviour, and cognition). The affective response is an emotional reaction that expresses an individual's degree of preference for an entity. The behavioural intention is a verbal indication or typical behavioral tendency of an individual. The cognitive response is a cognitive evaluation of the entity that contains an individual's beliefs about the object. Most attitudes are the result of either direct experience or observational learning from the environment (Atkinson & Hilgards, 2009)

2.2.7 Emergency Contraceptive pills

ECPs are ordinary birth control pills containing the hormones oestrogen and progesterin. (Trussell et al, 1998). Emergency contraception pills is a birth control method to prevent pregnancy in women after circumstances such as; after a sexual intercourse or rape, when a condom breaks or a diaphragm slips out of place, when a woman fails to take birth control pills, when having sex and do not use any birth control. The different names of Emergency contraception pills include; Morning-after pill; Postcoital contraception; Birth control - emergency; Plan B. Emergency contraception most probably works by preventing or delaying the release of an egg from a woman's ovaries. This method prevents pregnancy in the same way as regular birth control pills (Susan, 2013).

2.2.8 Unsafe abortion

This is a system for terminating an unintended pregnancy either by individuals without the necessary skills or in an environment that does not match to minimum medical standards or both (Grimes, 2006). Unprotected sexual intercourse- is an intercourse that is taking place without barrier methods such as; no contraceptive has been used, when there is a contraceptive accident (failure) or misuse, condom rupture, slippage or misuse, failure to abstain on a fertility day of the cycle in women who use the calendar method and in case of rape (forced sex).

2.3 Theoretical review

2.3.1 Emergency contraception

Emergency contraception refers to back-up methods for contraceptive emergencies which women can use within the first few days after unprotected intercourse to prevent an unwanted pregnancy. Emergency contraceptives are not appropriate for regular use (WHO, 2012).

Unintended pregnancy continues to be a major public health issue in most developed and developing countries. About one-half of the 6 million pregnancies in the United States each year are unintended (Finer & Henshaw, 2006).

The majority of women in their childbearing years (aged 15–44 years) use some form of contraception, but more than one-half of all unintended pregnancies occur when these women experience contraceptive failure. The remaining pregnancies occur in women not using any contraceptive method (American Pregnancy Association of Statistics, 2009); therefore, efforts to increase use of the most effective contraceptives would decrease the rate of unintended pregnancy.

Emergency contraception (EC) has the potential to reduce women's risk of unintended pregnancy, and EC medications are the only contraceptive method that can easily be used postcoitally to prevent pregnancy (Coeytaux, et al, 2009). EC is a psychotherapy for women who have had unprotected sexual intercourse, including sexual assault and known or suspected contraceptive failure, and want to avoid pregnancy. The two most common reasons for seeking EC are failure of a barrier method (usually condoms) and failure to use any contraceptive method (Stewart, et al, 2007).

Even women who do not want pregnancy may practice contraception poorly or not use a birth control method. This contradiction can be explained by a number of factors, including women's ambivalence about potential pregnancy; experiences with contraceptive methods; partner influences; lifestyle factors such as travel, work, and relationships; and interactions with

contraceptive care providers. These factors influence gaps in contraceptive use, which intensify the risk of unintended pregnancy (Frost, et al, 2010).

The need for EC, and ready access to it, may be more significant when women and families are faced with financial hardship. In the best of economic times, the poorest women are more likely to face unintended pregnancy (Finer & Henshaw, 2006). The Guttmacher Institute recently collected data on the effect of decline on women's family-planning decisions. In the current recession environment of increasing unemployment, lower incomes, and concerns about health insurance and access to care, one in four women have delayed a gynecologic or birth control visit to save money and one in four women are having a harder time paying for birth control. Many are stretching their monthly medication supply, changing to a less expensive (and perhaps less effective) method, or not using a contraceptive (Guttmacher Institute, 2009).

2.3.2 People who needs emergency contraception

Any woman of reproductive age may need and utilize emergency contraception at some point to keep away from an unplanned and unwanted pregnancy (WHO, 2012).

2.3.3 Situations under which emergency contraception can be used

Emergency contraception can be used in a number of circumstances following sexual intercourse (Cheng et al, 2012); such as firstly when misuse of contraceptive , secondly in cases of sexual attack when a woman was unprotected by an appropriate contraceptive method and lastly when there is a contraceptive failure or inaccurate use, including:

- ❖ Condom breakage, slippage, or improper use;
- ❖ Three or more consecutively missed combined oral contraceptive pills;
- ❖ The progestogen-only pill (minipill) taken more than three hours late (or more than 12 hours late if taking a 0.75mg desogestrel-containing pill);

- ❖ Norethisterone enanthate (NET-EN) progestogen-only injection taken more than two weeks late;
- ❖ Depot-medroxyprogesterone acetate (DMPA) progestogen-only injection taken more than four weeks late.
- ❖ The combined estrogen-plus-progestogen monthly injection taken more than seven days late.
- ❖ Dislodgment, delay in placing, or early removal of a contraceptive hormonal ring or skin patch.
- ❖ Dislodgment, fracture, tearing, or early removal of a diaphragm or cervical cap.
- ❖ Failed withdrawal (e.g. ejaculation in the vagina or on external genitalia).
- ❖ Failure of a spermicide tablet or film to melt before intercourse.
- ❖ Miscalculation of the periodic abstinence method, or failure to abstain or use a barrier method on the fertile days of the cycle.
- ❖ Removal of an intrauterine contraceptive device (IUD) or hormonal contraceptive implant.

2.3.4 Methods of emergency contraception

There are two methods of emergency contraception and they include; emergency contraception pills (ECPs) and copper-bearing intrauterine devices (IUDs).

2.3.4.1 Emergency contraception pills

There are three types of ECPs which include; combined ECPs containing both estrogen and progestin, progestin-only ECPs, and ECPs containing an antiprogestin (either mifepristone or ulipristal acetate). Progestin-only ECPs have nowadays mainly replaced the older combined ECPs because they are more useful and cause fewer side effects. Although this therapy is usually recognized as the morning-after pill, the term is misleading; ECPs may be initiated earlier than the morning after-immediately after unprotected intercourse-or later-for at least 120 hours after unprotected intercourse (Trussell et al, 2016).

Progestin-only ECPs contain no estrogen. Only the progestin levonorgestrel has been studied for separate use as an emergency contraceptive. The unique treatment schedule was one 0.75 mg dose within 72 hours after unprotected intercourse, and a second 0.75 mg dose 12 hours after the first dose. However, studies have shown that a single dose of 1.5 mg is as efficient as two 0.75 mg doses 12 hours apart (Trussell et al, 2016).

Combined ECPs contain the hormones estrogen and progestin. The hormones that have been studied extensively in clinical trials of ECPs are the estrogen ethinyl estradiol and the progestin levonorgestrel or norgestrel (which contains two isomers, only one of which- levonorgestrel -is bioactive). One combined, dedicated (meaning it is specially packaged for use as EC) EC product (Preven) was accepted by the FDA in 1998 but withdrawn from the market in 2004. This combination of active ingredients used in this way is also sometimes called the Yuzpe method, after the Canadian physician who first described the regimen. When dedicated ECPs are not accessible certain ordinary birth control pills can be used in specified mixtures as emergency contraception. In either case, the regimen is one dose followed by a second dose 12 hours later, where each dose consists of 1, 2, 4, 5, or 6 pills, depending on brand. Currently, 26 brands of combined oral contraceptives are approved in the United States for use as emergency contraception. Research has confirmed the safety and effectiveness of an alternative regimen containing ethinyl estradiol and the progestin norethindrone; this result suggests that oral contraceptive pills containing progestins other than levonorgestrel may also be useful for emergency contraception (Trussell et al, 2016).

Levonorgestrel are suggested for emergency contraceptive pill use. Preferably this progestogen-only method should be taken as a single dose (1.5 mg) within five days (120 hours) of unprotected sexual intercourse. On the other hand, a woman can take the levonorgestrel in two doses (0.75 mg each; 12 hours apart).

❖ Mode of action

Levonorgestrel emergency contraceptive pills prevent pregnancy by preventing or delaying ovulation. They may also work to prevent fertilization of an egg by disturbing the cervical mucus or the ability of sperm to bind to the egg. Levonorgestrel emergency contraceptive pills are not successful once the process of implantation has begun, and they will not cause abortion (WHO, 2012).

❖ Effectiveness

Based on reports from nine studies including 10 500 women, the WHO, (2012) recommended levonorgestrel regimen is 52-94% useful in preventing pregnancy. The regimen is more efficient earlier after intercourse it is taken.

❖ Safety

Levonorgestrel-alone emergency contraception pills are very safe and do not cause abortion or harm future fertility. Side-effects are uncommon and normally mild.

❖ Medical eligibility criteria and contraindications

Emergency contraceptive pills prevent pregnancy. They should not be given to a woman who already has a confirmed pregnancy. However, if a woman accidentally takes the pills after she becomes pregnant, the available fact suggests that the pills will not harm either the mother or her fetus (WHO, 2012).

Emergency contraceptive pills are for emergency use only and are not suitable for ordinary use as an ongoing contraceptive method because of the higher possibility of failure compared with non-emergency contraceptives. In addition, frequent use of emergency contraception may result in side-effects such as menstrual irregularities, although their frequent use poses unknown health risks. There are no medical contraindications to the use of levonorgestrel emergency contraception pills.

2.3.4.2 Copper-bearing intrauterine devices (IUDs)

Copper-bearing IUD, as an emergency contraceptive is inserted within five days of unprotected intercourse. This may be perfect emergency contraceptive for a woman who is in suspense for continuing, highly effective contraceptive method (WHO, 2012).

❖ Mode of action

As an emergency contraception, the copper-bearing IUD primarily prevents fertilization by causing a chemical change that damages sperm and egg before they can meet.

❖ Effectiveness

When inserted within five days of unprotected intercourse, a copper-bearing IUD is over 99% useful in preventing pregnancy. This is the most effective form of emergency contraception accessible. Once inserted, a woman can continue to use the IUD as an ongoing method of contraception, and she may decide to change to another contraceptive method in the prospect.

❖ Factors Impacting Effectiveness

Treatment Delay: Several studies have indicated that both the combined and levonorgestrel regimens are more of useful the earlier after sexual intercourse pills are taken. The initial studies included only women who used the regimens within 72 hours after intercourse. Therefore some product package instructions, including that for Plan B One-Step and its generic counterparts such as Next Choice One Dose and Take Action, and older guidelines advise use only within that time frame. Some recent studies indicate that the regimens continue to be moderately efficient if started between 72 and 120 hours (Trussell, et al. 2016).

Body Mass Index: Analysis of data from the two randomized trials of the ulipristal acetate (UPA) and levonorgestrel (LNg) regimens found that when compared with women who were not overweight, obese women taking LNg had a significantly higher risk of pregnancy while women taking UPA did not. LNg showed a rapid decrease of effectiveness with increasing body mass index (BMI), reaching the point where it appeared no different from

pregnancy rates expected among women who are not using EC at a BMI of 26 compared with a BMI of 35 for UPA.⁵¹ The label for NorLevo (a 1.5 mg LNG) was changed in Europe in November 2013 to reflect the findings from further analyses of these data; the label stated: “In clinical trials, contraceptive effectiveness was reduced in women weighing 75 kg or more and levonorgestrel was not effective in women who weighed more than 80 kg. However, the European Medicines Agency, after reviewing additional data from three WHO trials 72,829 that did not find reduced efficiency with increasing weight or BMI, removed that statement from the Norlevo label in July 2014. The effect of weight on the effectiveness of combined ECPs has not been studied (Trussell. et al 2016).

❖ Safety

A copper-bearing IUD is a very safe form of emergency contraception. The risks of infection, expulsion or perforation are low (WHO, 2012).

❖ Medical eligibility criteria and contraindications

The only circumstances in which a copper-bearing IUD should never be used as emergency contraception is if a woman is already pregnant. There are other contraindications to using a copper-bearing IUD as constant contraception, which also should be measured before its use as emergency contraception.

2.4 Conceptual Framework

According to the business dictionary (2016) a conceptual framework is looked at as a theoretical structure of assumptions, principles, and rules that holds together the ideas comprising a broad concept.

A conceptual framework refers to an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture something real and do this in a way that is easy to remember and apply (Isaiah, 1953; Ravitch & Riggan, 2012; Maxwell 2009).

Health Belief Model (HBM) was used as the conceptual frame work for this study. A model refers to a symbolic description of reality and use diagrams and symbols to represent ideas. The components of a model can guide the researcher in the research undertaking (Brink et al, 2006).

The HBM is one of the most commonly used conceptual framework for understanding health behaviors and is thought to lay the basis of this study which enables the researcher to find out what is known or unknown about the topic of interest in order to accomplish research that adds to the body of knowledge (Polit & Beck,2007).

2.4.1 Determinants of individuals' intentions to participate in preventive health behavior.

According to Edelman and Mandle (1995) and Rosenstock (1974), individuals' intentions to participate in preventive health behaviour are determined by five main factors, namely:

2.4.1.1 Perceived susceptibility

This is to say the person's individual perceptions of experiencing a specific disease or condition that would adversely have an effect on their health risk. For the behavior of seeking emergency contraception, the student must believe that she can have unintended pregnancy as a result of incidental sexual practice. This collection of belief is referred to as "belief in susceptibility".

2.4.1.2 Perceived Severity or Perceived Seriousness

Here the individual perceptions in relation to the effects of the disease or condition might have. For this particular subject consequences of unintended pregnancy like troubles as a result of unsafe abortion, dropout of education stigma and discrimination both from family and the community are some of the impacts.

2.4.1.3 Perceived benefits

That is to say the students' perceptions of the gains associated with using contraception. On assessing the circumstances, the students believe that benefits stemming from recommended behavior outweigh the costs and inconveniences and it is in fact possible and with their grasp.

2.4.1.4 Perceived barriers

This is the individual perceptions of hindrances connected with performing the behavior, perceived barriers explain one's belief about the physical and psychological costs of the advised action. For example fear of stigmatization to ask EC from health institution, inaccessibility of EC, distance from the health institution cost of EC, fear of side effect.

2.4.1.5 Cues of action

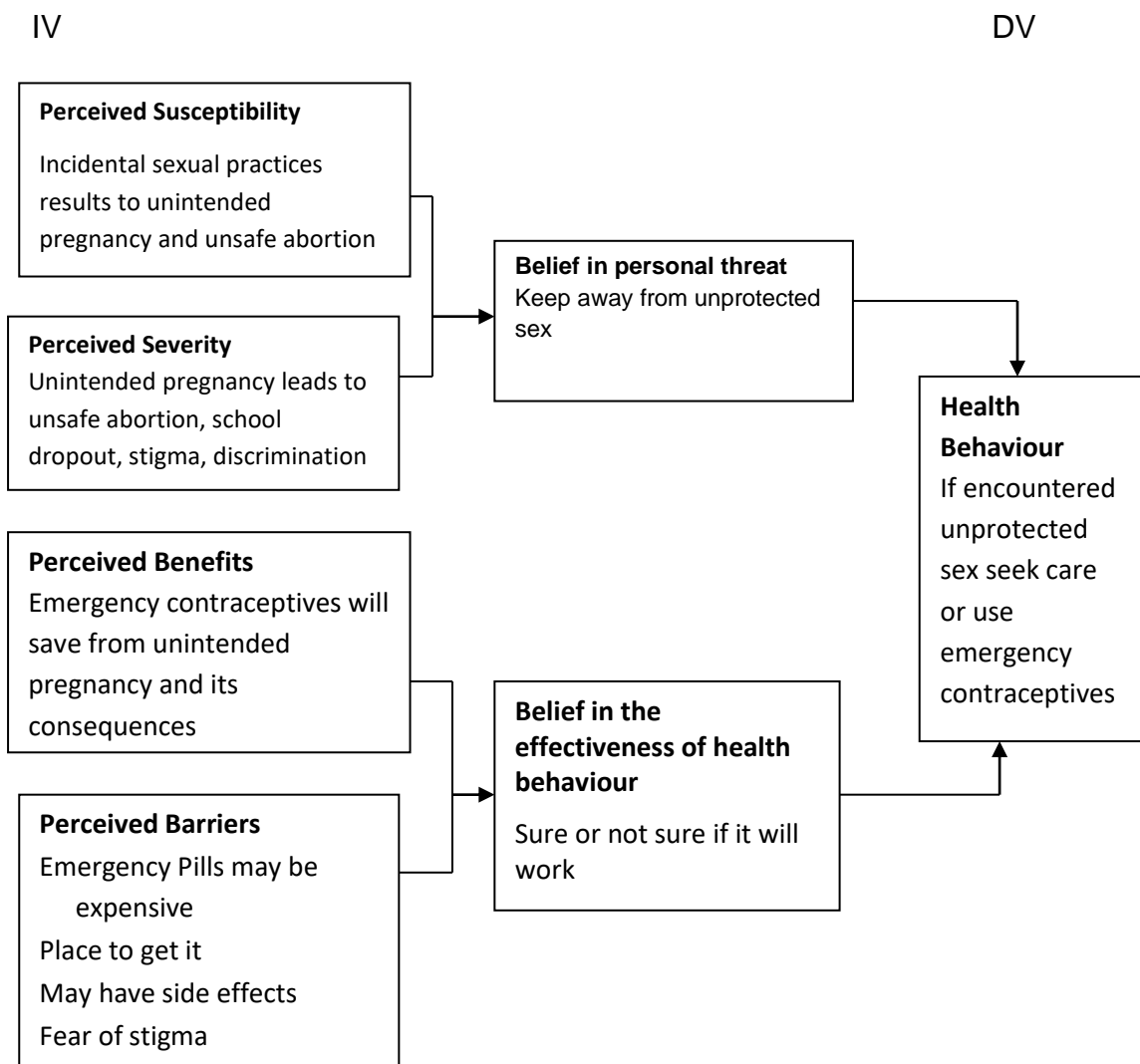
These includes a different range of sources such as perception of complication, social influence, health education campaigns, media reports and mass media campaigns.

According to Stanhope and Lancaster (2001), noted that the HBM is useful in assessing health protection or disease prevention behaviors. It is also effective in organizing information about clients' views on the state of health and what factors might influence them to change their behaviour. The HBM when utilized appropriately provides organized assessment data about clients' abilities and inspiration to change their health condition. Programmes can be improved or developed to go with the needs of clients.

This study utilised the HBM to facilitate and obtain insight into female university students' knowledge, attitude, and practice with regard to sex and emergency contraceptives (Dennill, King & Swanepoel,1999). Based on the HBM, questionnaires were developed to cope with the female university students' knowledge and perceptions (perceived susceptibility, perceived severity, perceived benefits and barriers granted to preventive behaviors) of unwanted pregnancy and unsafe abortion. This conceptual framework formed the basis of the questionnaire of the research. Those

questionnaires that ask about pregnancy were based on perceived susceptibility, whereas questionnaires on unsafe abortion stemmed from perceived severity or perceived seriousness, and those that asked about challenges to get emergency contraceptives derived from perceived barriers. Furthermore, questionnaires asking about source of information were based on cues of action.

Figure 2.1: Variables of Health Belief Model in relation to Emergency contraceptives



Source: (Cookfair, 1991)

IV- Independent Variable

DV-Dependent Variable

In applying the HBM, it is significant to provide information about unwanted pregnancy and the impacts which arise if unwanted pregnancy is handled unsafely.

Female university college students should be aware of the consequence of unwanted pregnancy and severity of unsafe abortion as well as the significant benefit of effective utilization of emergency contraception. Various forms of health education strategies assist and remind students to take action in the prevention of risks of unsafe sex. Local surveys on the knowledge, attitudes and practice towards un protected sex and emergency contraceptives in the university will be beneficial in the planning, implementation and evaluation of family planning programmes (Nibabe,2013).

In conclusion a conceptual framework serves as a foundation on which a study is based and enables a researcher to realize what is known or unknown about the topic of interest in order to conduct research that attaches to the body of knowledge.

2.5 Empirical review

2.5.1 Students' sexual behaviour and emergency contraception

Female college students' Knowledge about Emergency contraception has been developed in many developing countries. Though limited provider knowledge and negative attitudes, as well as poor user awareness and access, have hindered adolescents in learning and using Emergency contraception. (Mengistu, 2007).

A cross sectional study done by Ahimed et al, (2012) on 368 undergraduate university students to assess their knowledge, attitude and practice of emergency contraception, showed that participants who had ever heard of EC were 84.2%. In this study, an appropriate design was clearly identified. On the other hand, the data collection instruments were appropriate for the purpose of the study even though not piloted. This study showed high EC awareness and usage in contrast to other studies in the city, and concluded

that this could be due to the fact that university students are relatively in a better educational level.

Another quantitative study done by Tamire and Enqueselassie, (2007) on the same university students. This study also has a clearly defined design which was appropriate for the study. Here pilot study was conducted to validate the instrument though the result of the pilot study was not discussed. The study revealed that about 43.5% (95% CI 4.00-47%) of the students said that they have heard about emergency contraceptives and as a result the paper concluded that the awareness of the students was low.

Desta, et al. (2011), carried out a study on 572 students of Haramaya University of Ethiopia, and had used appropriate design for the purpose of the study. A pilot study was done to check the clarity ordering and consistency of the instrument and the result of the pilot study were discussed. This study showed that while the overall awareness of EC is fair (46.7%), actual knowledge of EC is very low 25.7%.

Again, Mengistu, (2007), conducted a study on 830 students, sampled from 10 colleges in Arsi, which is one of the provinces in Ethiopia; this cross-sectional study had a clearly defined design which was appropriate for the purpose of the study. Sampling and data collection procedures were clearly described and the instrument was pretested though the result of the pretest was not discussed. According to the study, there was low awareness, knowledge and utilization of emergency contraception although there was high sexual violence and sexual harassment (high rate of unintended sex).

From all the above mentioned studies, one can conclude that awareness of students about EC is low except one study done by Ahimed, et al. (2012). Also in a study done in Nepal only about two-thirds of the college students (68%) had heard about EC. This study concluded that, awareness about EC among college level students was low and suggested health education initiatives should target such students as they are more likely to be sexually active. There is a need to educate students about EC, which can help to

reduce unplanned and unintended pregnancies, many of which impact to unsafe abortion and take a large toll on women's health.

Education about emergency contraceptives at college levels could be beneficial to youths even out-of-college, because their friends often are students. In this study, the researcher clearly identified the research design appropriate for the research purpose (Adhikari, 2009).

2.5.2 Female university students' attitude towards emergency contraception

According to a study conducted on 660 students in Adama university of Ethiopia, with objective of assessing the university students' knowledge, attitude and practice on EC, about 62% of the respondents had positive attitude towards emergency contraception (Tilahun et, al. 2010).

In (Mengistu, 2007) of Arsi Ethiopia, majority (52.1%) of the respondents have positive attitude to ideas making easy access/availing of EC for all females. Five hundred and twenty four (62.9%) have an intention to use EC in the future when need arises. Six hundred and thirty-four (76.1%) of the study subjects have responded willingness to advice their peers to use EC whenever they faced a problem.

More than half of the students 54.9% (n=457) believe that unintended sexual intercourse and 783 (94.0%) of them believe unwanted pregnancy are problems to all youth. Summarized figure obtained from study of Desta, et al. (2011) on 572 students indicated that 76.5% of the respondents who have ever heard of EC had favourable attitude towards using EC, which is higher than the numbers obtained from different studies in Addis Ababa.

In a cross sectional study conducted on 155 of an engineering college girls, using structured self administered questionnaire, indicated that 101 students (72.2%) either agreed or strongly agreed that they would use EC in the future if need arise. But most of them believed that EC were unsafe for their users (Relwani et al, 2012).

A cross-sectional study done on 561 female students of Mekele University of Northern Ethiopia, showed that two hundred fifty one (44.7 %) of the total respondents had ever heard of emergency contraception. Two hundred twenty one (88.04%) of those ever heard of EC mentioned pills, 3.18% (n=8) IUD and the remainder 8.76% (n=22) mentioned injection and implant. One hundred ninety (75.7%) of those ever heard of EC had positive attitude towards making EC available to all women who need it. The researcher defined clearly the research design. The design was appropriate for the purpose of the study; sampling procedures are clearly described, data collecting instruments are piloted for clarity and consistency in which the result was used for modifications such as modifying questionnaire with multiple possible answers (Gebreyohanis, 2009).

As the study of Tamire, et al (2007), fifty-three percent of students believed that emergency contraceptives are essential and they should be available for all couples. However, a considerable proportion of respondents reported problems of using emergency contraceptives and misconceptions about emergency contraceptives including that they protect from sexually transmitted diseases and HIV/AIDS. Positive attitude towards emergency contraceptives was significantly higher among followers of Orthodox and Muslim religions compared with Catholic and Protestants and among senior students compared to their juniors.

2.5.3 Female university students' practice on emergency contraception

Different sources have indicated that EC use has significant impact in reducing unwanted pregnancies. But EC's use in countries like Ethiopia where there is a higher burden of maternal mortality due to unsafe abortion is low and EC's impact in preventing unwanted pregnancy is not recognized. The Ethiopian Society of Gynaecologists (ESOG) in its 7th annual conference deliberated on illegal and unsafe abortion in Ethiopia, and strongly recommended that EC promotion and use in the country would reduce the incidence of unwanted pregnancies (Lemma, 2009). The above idea can be strengthened by different studies in different higher institutions of the country.

According to Gebreyohanis (2009), out of the total 561 respondents, 17.3% (n=97) had ever been to sexual experience. Among these, 61.9 % (n= 60) of them started before joining the university and 83.5% (n=81) had only one partner. Twenty seven (27.8%) of those who had sexual contact stated that their reason was marriage. The study revealed that the prevalence of premarital sex among those that ever had sexual experience was 72.2%, out of which 8 was due to rape.

2.5.4 Female university students' attitude towards sex

University life is characterized for many students, by more independence and opportunities for social mixing than before. Many students, moreover, have begun to reside independently, that is, in hostels and private accommodations away from their families; others who continue to reside with their families may be less supervised by parents than when they were in school. (Sujay, 2009).

2.5.5 Female college students' sexual practice and its consequence on their life

In a study done, 49.5% of respondents had one life time partner, 45.6% had two and above partners, 2.91% could not remember, and 1.94 percent did not know the exact number of partners they had since they started sexual intercourse. Out of the total sexually experienced, 73.8% have had sexual intercourse during the six months prior to the survey date, which can be considered as sexually active (Desta & Regasa, 2011).

In another study conducted in different colleges, at the time of the survey, about 19.5% (n=151) respondents have ever had sex in the past. Of those who are sexually active, about 6% started sex before the age of 15 and 16% started sex between 15 to 19 years of age. Ten percent of the respondents claimed to have used contraceptive methods other than male condoms by their partners. The most commonly used contraceptive method was pills (44%) followed by injectables (21%). A total of 53 respondents replied that they had been pregnant at least once previously. This represents 6.8% of the total respondents and 35.1% of those who are sexually active. Almost

half of those who were pregnant were below the age of 20 years and two of whom below the age of 15 years (Tamire, 2007).

Again in a study conducted in Angola, it was observed that the majority started having sexual intercourse at an early age; 56% of adolescents stated that premarital sex was an acceptable act (if the couple were in love or engaged), and in the majority of cases they were 15 years and or older when they engaged in sexual intercourse, with 12 years of age being the youngest age during which an adolescent started having sexual intercourse (Freitas, 2007:113).

A study shows that unwanted pregnancy posed health risks to the mother as well as to the children such as prematurity, low birth weight, birth injuries and damage that can occur in the birth process that renders them infertile or endangers their lives. Abortion, as most victims of unwanted pregnancy do, is often a frightful expensive operation, only the few who have enough money ever seek the services of qualified gynaecologists while poorer girls either run to quacks or try to get rid of the pregnancy themselves by drinking toxic substance which brings about catastrophic result and death at times. Even when the abortion bid initially seems to have gone hitch-free, its scars could still affect future pregnancies especially by heightening the risk of miscarriage and premature delivery. (Lanre, 2010:197).

A study by Mengistu, (2007) shows that, out of 830 students, about 29.2% (n=243) of the respondents has had sexual intercourse in their life time. Of those who ever had sexual intercourse, about 51.0% (n=124) were by the consent of the female, while 49.0% (n=119) were forced. A total of 34.9% (n=291) reported that they have encountered sexual harassment and escaped from the attempt of forced sex once or more times. Of those who had forced sex, student peers 22.5% (n=30), unknown persons 21.8% (n=26) were ranked high in committing forced sex. Most of the students 43.7% (n=52) encountered forced sex at their locality (home). More than half of the forced sex 52.1% (n=62) resulted in unwanted pregnancy and 64.5%

(n=40) of them proceeded pregnancy to delivery while 35.5% (n=22) undergo induced abortion.

In this case there are significant researches which were made with regard to the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students, among them are;

Mengistu (2007), in the study that assessed the awareness, attitude and utilisation of emergency contraception. The study used cross sectional, descriptive study/ self administered questionnaire on a sample of 830 Female college students. The study found that there is high sexual violence and sexual harassment (high rate of unintended sex) low awareness, knowledge and utilization of EC about 548(65.8%) of respondents had favourable attitude towards emergency contraception.

Tamire, et al. (2007) in the study that assessed the knowledge, Attitude and Practice of EC among young female. The study used a sample of 774 female university students. The study was descriptive, cross sectional study. The study used self administered questionnaires. The study noted that Low level of knowledge and practice of emergency contraceptives among female University students. Only about 4.9% respondents reported that they had used EC.

Zelege, et al. (2008) in their study on assessing the knowledge, Attitude and practice of emergency contraceptives among university students. The study used a sample of 400 female University students as respondents. The study was descriptive cross- section and used structured self administered questionnaires. The findings show that majority of students have knowledge about Emergency contraceptives. However, there is a great knowledge and attitude gap among female university students out of 124 who practiced unsafe sex, 91(73.4%) used EC.

Gebreyohanis (2009), on their study on assessing the knowledge, attitude and utilization of emergency contraceptive and identifying associated factors among female undergraduate students of Mekele University. The study used a sample of 561 female University respondents. The study was a descriptive cross-sectional study self administered questionnaire. The study noted that less than fifty percent of the respondents were aware of EC. The knowledge of the correct method is lacking such as the time limit.

Mosha, et al. (2011), in their study to investigated knowledge, perception, and use of emergence contraceptives and identified predictors of EC use in the future in Tanzania. The study had a total of 95 young women randomly selected from the Institute of Rural Development Planning and University of Dar es Salaam to participate in the study. Face-face interviews were conducted using questionnaires in a cross sectional research design. The questionnaire consisted of demographic characteristics (e.g. age, sex, year of study), reproductive health aspects, and a set of variables that aimed to test knowledge. The study findings indicated that about 1 % had no knowledge of EC, the proportions of those with low knowledge and average knowledge of EC were similar and the two categories made the vast majority (96.9 %) of the respondents. As low as 2.1 % had high knowledge of EC However, those who had some awareness and knowledge of EC thought EC may cause cancer, problems in getting pregnancy in future or high levels of uncertainty on the effectiveness of this method of contraception. Only 17.8 % of the respondents had used EC. Factors influencing EC use included lack of comprehensive knowledge and misconceptions of EC. The study concluded that educational strategies should be designed and implemented to ensure access to accurate information on emergency Contraceptives, such information should be made available whenever a woman requests emergency contraception.

2.6 Chapter summary

This chapter presented an overview of literature related to the topic which indicated no similar research has been conducted in the study area and studies done on Female university students' knowledge attitude and practice towards unprotected sex and emergency contraceptives. It presents the manner in which emergency contraception is related to the other key terms knowledge, Attitude and Practice of university students. The literature review of the terms provided the researcher with a significant background in terms of acquisition of knowledge with regard to the study. All reviewed papers had similar study designs with this research and data collecting materials except (Adhikaris, 2009) which has used both self administered questionnaire and structured interview schedule.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Chapter overview

This chapter explain the research methodology, which represents how the study was conducted, the choice and reasons for choosing the research setting, data collection methods and procedures that were used in conducting the study. Other issues covered, include accessibility of the primary data and how they were selected. The issue of validity and reliability is highly considered in relation to the data collected.

3.2 Study design

According to Blanche et al (2006), research design is a strategic framework for action that serves as a link between research questions and the implementation of the research. A research design needs to provide a plan that clearly specifies how the research is going to be conducted in such a way that it answers the research questions. The research design guides the researcher to plan and implement the study so as to achieve the set goals. Polit and Beck (2006) looks at research design as a general plan for addressing research questions, including specifications for enhancing the studies' integrity.

The methodological approach that was employed in this study is a quantitative and descriptive design. The appropriateness of the design was assessed in order to determine whether it attend to the research objectives and produces results that are interpretable and meaningful.

3.2.1 Cross-sectional design

This study design involved the collection of data once the phenomena under study and are captured during one period of data collection. Cross-sectional studies are appropriate for describing relationships among phenomena at a fixed point in time (Polit & Beck, 2008). Descriptive studies provided valuable baseline information. The method is also flexible and can be used to collect information from a large group of respondents. In this study data was collected using self administered questionnaire at a time at SJUT.

3.3 Study Area

Study area, is a place where the study is going to be conducted (Glesne, 2006). In this study St John's university of Tanzania was used as the study area due to fact that it has female students who need to be assessed on their knowledge, attitude and practice towards sex and emergency contraceptives so that their level of knowledge is determined and hence it would be easy to access data.

3.4 Population and Sampling

3.4.1 Target Population

The study involved all University female students aged 18 years and above. The students had no serious mental/health or linguistic problem and any other situation or problem that prevented them from taking part in the study. According to Polit and Beck (2008). Target population can be defined as the collection of cases about which the researcher would like to generalize the findings.

The target population of this study included female SJUT students, 160 degree students, 120 diploma students and 120 certificate students. These students were selected because they have the knowledge, attitude and practice about sex and emergency contraceptives and it was relevance to the requirements of the study hence remained as representative sample of female university students in Tanzania.

3.4.2 Accessibility of the Target Population

According Glesne (2006), access is a process, which refers to acquisition of consent to go where you want, observe what you want, talk to whomever you want, obtain and read whatever document you require and do all the mentioned for the period of time allowed to satisfy your research purpose. Therefore this was achieved after getting ethical approval from respective ethical committee of St John University of Tanzania. Since this study was conducted at St John's University of Tanzania it was easy to reach the female students.

3.4.3 Sampling Frame and sample size

The sample frame of this study was 400 female students from all the faculties of St John's University of Tanzania and they are being selected from degree, diploma and certificate programme. This distribution was based on the knowledge, level and number of respondents in respective discipline.

3.4.3.1 Sample size estimation

The sample size was calculated using a one sample population proportion formula. Assuming the proportion of students who are aware of emergency contraception to be 50%, adding non-response rate of 5%, the required sample was calculated using the following formula.

According to the financial statements of financial year 2015/16, SJUT has total number of students of approximately 5500 students. Hence from this population the following formula as specified by Yamana (1967) as cited by Kothari (2007) was used to calculate size of the sample.

$$n = \frac{N}{1 + N(e)^2}$$

Whereby n = Sample size

N = Targeted population

e = Level of confidence interval i.e. 5%

N = 5500

$$1 + 5500(0.05)^2$$

$$n = \frac{5500}{1 + 5500(0.05)^2}$$

n = 372.88 approximately 400

n = 400

Then the required sample size became 400.

Table 3.1: Sample size of respondents

Respondents' Category	Number of Respondents
Degree students	160
Diploma students	120
Certificate students	120
TOTAL	400

Source: Researcher (2015)

Based on proportional allocation, 160 female students were from the degree since there are more students than other programmes, 120 female students will be from diploma programmes and lastly 120 female students were from the certificate programmes. Finally simple random sampling which is the most basic probability sampling method (Polit & Beck,2008) were used to select these 400 female students from all the three programmes offered at SJUT.

3.4.4 Sampling procedure

Sampling procedure is the scientific method of selecting the sampling units which would provide the required estimates with associated margins of uncertainty arising from examining only a part not the whole. Various sampling techniques can used depending on the type of research to be conducted (Anthony, 2014). Regarding the nature of the research and the methodologies, purposive sampling was used in order to obtain a well-off and a full analysis of the study. Respondents were selected by focusing on the purpose of the study and kinds of respondents to be involved. The main rationale of adopting purposive sampling in this study was due to its usefulness in exploring and constructing historical reality and description of phenomenon on the knowledge concerning knowledge, attitude and practices towards unprotected sex and emergency contraceptive and the challenges they encounter in accessing them.

Female students from all faculties and levels of education at St John's University of Tanzania were selected. The selected female SJUT students represent the characteristics of knowledge, attitude and practice towards sex and emergency contraceptives of female students of the university. The purpose of those students who were selected was to gain information about emergency contraceptives knowledge and attitude among the SJUT female students.

3.5 Types and Sources of data

3.5.1 Primary Data

The rationale of using primary data was that data was collected for the particular project at hand. This means that they are more consistent with the research questions and research objectives. It could be a bit difficult to learn about opinions and behaviour without asking questions directly to people involved (Perez & Knell, 2005). Primary data was collected by using questionnaires. Detailed information about the respondent's knowledge, attitude and practice towards sex and emergency contraceptives among female university students was obtained through the use of primary data source.

3.5.1.1 Questionnaires

This method was used to obtain data in this study. A questionnaire is a cheap way to collect data from a potentially large number of respondents (Kothari, 2004). Sixty questionnaires were administered to undergraduate students due to fact that female students are ones who largely affected if they don't have any knowledge, attitude and practice towards sex and emergency contraceptives hence providing the necessary information on the challenges they encountered if they don't use emergency contraceptives. Both open ended and closed ended questionnaire were used. The reason behind this distribution was based on the knowledge and experience of the female students on the challenges they face if they don't use female contraceptives. Pre testing was conducted in order to ensure that questionnaires are in line with objectives of the study.

3.5.2 Data analysis

According to Basavanthappa, (2007), the analysis and interpretation of data involved the objective material in the possession of the researcher and his subjective reactions and desire to drive from the data the inherent meanings in relation to problem. The completed questionnaires were analysed using SPSS version 16.0 computer program. Most of the questions included in the questionnaire were closed questions questionnaires prepared using five step Likert scale. These were coded for easy analysis by computer. Descriptive statistics, such as frequency tables and bar graphs were used to summarize the findings. Moreover conclusions and recommendation were given based on these findings.

3.6 Reliability and Validity

Reliability and validity are the two most important quality control variable in research design. Therefore, it will be very important that the researcher will ensure that the research results are reliable and valid. Validity and reliability are the two factors which any qualitative researcher should think about while designing a study, analysing results and judging the quality of study.

3.6.1 Reliability

According to Joppe (2000), reliability refers to the extent to which results are consistent over time and an accurate representation of the total population under study and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable.

The issue of reliability was considered in the study by using various methods such as structuring various questions that were aligned to the research objectives, which ensured the reliability of the data collected. Finally the researcher worked closely with his research supervisor to assess the research instruments before they are dispersed to be used in collecting data.

3.6.2 Validity

The traditional criteria for validity find their roots in a positivist tradition, and to an extent, positivism has been defined by a systematic theory of validity. Within the positivist terminology, validity resided amongst, and was the result and culmination of other empirical conceptions: universal laws, evidence, objectivity, truth, actuality, deduction, reason, fact and mathematical data to name just a few (Winter, 2000).

Validity refers to the degree to which the study accurately corresponds with the specific concept the researcher is attempting to measure. Validity is a measure of accuracy on whether the instruments of measurement are actually measuring what they were intended to measure (Fidell & Tabachnick, 2007).

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit "the bulls eye" of your research object? Researchers generally determine validity by asking a series of questions, and will often look for the answers in the research of others.

The validity of data collection tools was guaranteed regarding comments from supervisor, administration of tools by the researcher himself and testing of some tool before the actual data collection.

3.7 Ethical issues

Consideration of ethics and values in research will remind the researcher of the responsibility for acknowledging, keeping the public informed and protecting the privacy and welfare of human subjects (Mason & Bramble, 1997). In this light, anyone who entered into research activities needed to adhere to ethical obligations. This study involved the use of primary data collected from the distributed questionnaires and respondents were required to fill them.

The information that was provided was used solely for research purposes and was not passed on to any other person or organization. Their confidentiality was protected in that the research questionnaires and respondents were not required to write their names and questionnaires were identified by alphabetic letters. The university administration was told when and where they would have access to a summary of the findings of the research. This was given to the management.

3.8 Chapter Summary

This chapter discusses the design of the study, types and sources of data, data collection methods, validity issues, data analysis methods. Purposely it provides a picture on the ways the research has been constructed and conducted in order to achieve the desired objectives.

CHAPTER FOUR FINDINGS AND DISCUSSION

4.1 Chapter overview

This chapter provides a detailed analysis of collected data from field work. The chapter includes the demographic profile of respondents. Furthermore in depth discussion was made purposely to correlate the obtained data from different respondents. The discussion of the finding based on the specific objectives namely; to assess the students' knowledge about EC among SJUT female students, to assess students' attitudes about sex and how can these affect their use of EC among St John's University of Tanzania female students, to assess the utilization level of emergency contraceptive among the SJUT female students and lastly to utilize findings to develop practical recommendations to the SJUT female students.

4.2 Response Rate

The study targeted all the female SJUT female students. This was because the female students are well conversant with the subject matter of the study. 400 female students participated in filling in the questionnaires.

Table 4.1: Response rate

Response rate	Frequency	Percentage (%)
Returned questionnaires	300	75
Unreturned questionnaires	100	25
Total	400	100

Source: Research findings (2016)

Interpretation

The number of returned questionnaires was 300 representing 75% of the total number of respondents. Generally the findings of the study indicated that majority (75%) of the distributed questionnaires were returned by the respondents

4.3 Analysis of demographic characteristics of respondents

The Demographic data include respondents' age, educational status, and marital status.

4.3.1 Age distribution of respondents

Here the study looked at the different age groups that the respondents fall in.

Table 4.2: Age distribution of female SJUT students

Age group	Frequency	Percentage (%)
18-19	89	29.7
20-21	102	34
22-23	55	18.3
24 and above	54	18
TOTAL	300	100

Source: Study findings (2016)

Interpretation

The results show that 89(29.7%) of the total number of respondents were between 18 and 19 years old; 102(34%) of the total number of respondents were between 20 and 21 years old; 55(18.3%) of the total number of respondents were between 22 and 23 years old. 54(18%) of the total number of respondents were 24 and above years old.

Generally the findings of the study indicated that majority of the respondents were below 24 years of age.

4.3.2 Respondents' educational level

Here the study was interested in finding the level of education of the respondents.

Table 4.3: Respondents educational level

Level of Education	Frequency	Percentage (%)
Certificate students	77	25.7
Diploma students	103	34.3
Degree students	120	40
TOTAL	300	100

Source: Study findings (2016)

Interpretation

The findings show that degree students had the biggest number of respondents in this study, where by 120(40%) of the total number of respondents followed by diploma students where the second biggest group of participants in this study with 103(34.3%) of the total number of respondents. Lastly, certificate students had the smallest number of respondents whereby 77(25.7%) of the total number of respondents were from this group.

Generally from the study findings it is found that majority of the respondents were from degree students 120(40%).

4.3.3 Marital Status of Respondents

Here the study looked at the marital status of respondents from SJUT where some respondents were unmarried and others were married.

Table 4.4: Marital status of respondents

Marital status	Frequency	Percentage (%)
Unmarried	246	82
Married	54	18
TOTAL	300	100

Source: Study findings (2016)

Interpretation

Of the respondents who participated in this study, 246(82%) of the respondents were unmarried. The findings show that 54(18%) of the total number of respondents were married. Therefore in this study most of the respondents were unmarried.

4.3.4 People with whom the respondents live

Here the study found out whether the respondents lived with friends, family or alone.

Table 4.5: People with whom the respondent lives with.

People with who the respondents live with	Frequency	Percentage (%)
Alone	102	34
Friends	112	37.3
Family	86	28.7
TOTAL	300	100

Source: Study findings (2016)

Interpretation

The findings show that majority of the respondents 112(37.3%) lived with their friends, followed by 102(34%) of the respondents who lived alone and lastly the least number of respondents lived with their family and this was shown by 86(28.7%) of the total number of respondents.

Generally the findings of the study showed that different respondents lived with different people such as family, friends and others alone.

4.4 Respondents' Attitude towards sex

Students were questioned extensively about their attitudes towards premarital intimate and sexual relationships. Attitude Indicators were; Agree strongly, Agree slightly, Neither agree nor disagree, Disagree Slightly, Disagree strongly.

Table 4.6: Attitudes towards sexual relationship among female university students of SJUT

Attitude Indicators	Agree strongly	Agree slightly	Neither agree nor disagree	Disagree slightly	Disagree strongly	TOTAL
It is all right to have a boyfriend during University life	104(34.7%)	56(18.7)	32(10.7)	35(11.6%)	73(24.3%)	300(100)
It is wrong for unmarried students to kiss each other	116(38.7%)	34(11.3)	24(8%)	15(5%)	111(37%)	300(100)
It is unnatural for female to initiate sex	93(31%)	50(16.7)	28(9.3%)	20(6.7%)	109(36.3)	300(100)
It is better to abstain from sex until marriage	248(82.7%)	14(4.7%)	6(2%)	5(1.7%)	27(9%)	300(100)
It is better to abstain from sex until graduation	205(68.3%)	30(10%)	12(4%)	15(5.1%)	38(12.7%)	300(100)
It is advisable for a girl to remain virgin until marriage	247(82.3%)	16(5.3%)	5(1.7%)	5(1.7%)	27(9%)	300(100)
It is alright for students to have sex before marriage if they use methods to prevent pregnancy	42(14%)	51(17%)	29(9.7%)	32(10.7%)	146(48.7)	300(100)
Extra marital sex leads to marital problems	219(73%)	28(9.3%)	8(2.6%)	9(3%)	36(12%)	300(100)
Sex without love is ok	25(8.3%)	6(2%)	15(5%)	8(2.7%)	246(82%)	300(100)
Attitude of students towards sex(summary index)						
Favourable attitude				253(84.3)		
Unfavourable attitude				47(15.9%)		300(100)

Source: Study findings (2016)

Interpretation

The findings show that a set of nine statements pertaining to relationships and sex were included in the questionnaire. Two positive and two negative items were included to maintain the balance of responses. The five items were answered as either agreed strongly, agreed slightly, had no opinion about the statement under consideration disagreed slightly, disagreed strongly (a five-point Likert scale).

The findings of the study indicate that 104(34.7%) of the total number of respondents strongly agree that it is all right to have a boyfriend during University life. 56(18.7%) of the total number of respondents slightly agreed that it is all right to have a boyfriend during University life. 32(10.7%) of the total number of respondents neither agreed nor disagreed that it is all right to have a boyfriend during University life. 35(11.6%) of the total number of respondents slightly disagreed that it is all right to have a boyfriend during University life. 73(24.3%) of the total number of respondents disagreed strongly that it is all right to have a boyfriend during University life.

The findings of the study indicate that 116(38.7%) of the total number of respondents strongly agree that it is wrong for unmarried students to kiss each other. 34(11.3%) of the total number of respondents slightly agreed that it is wrong for unmarried students to kiss each other. 24(8%) of the total number of respondents neither agreed nor disagreed that it is wrong for unmarried students to kiss each other. 15(5%) of the total number of respondents slightly disagreed that it is wrong for unmarried students to kiss each other. 111(37%) of the total number of respondents disagreed strongly that it is wrong for unmarried students to kiss each other.

The findings of the study indicate that 93(31%) of the total number of respondents strongly agree that it is unnatural for female to initiate sex. 50(16.7%) of the total number of respondents slightly agreed that it is unnatural for female to initiate sex. 28(9.3%) of the total number of respondents neither agreed nor disagreed that it is unnatural for female to initiate sex. 20(6.7%) of the total number of respondents slightly disagreed

that It is unnatural for female to initiate sex. 109(36.3%) of the total number of respondents disagreed strongly that it is unnatural for female to initiate sex.

The findings of the study indicate that 248(82.7%) of the total number of respondents strongly agree that it is better to abstain from sex until marriage. 14(4.7%) of the total number of respondents slightly agreed that it is better to abstain from sex until marriage. 6(2%) of the total number of respondents neither agreed nor disagreed that it is better to abstain from sex until marriage. 5(1.7%) of the total number of respondents slightly disagreed that it is better to abstain from sex until marriage. 27(9%) of the total number of respondents disagreed strongly that it is better to abstain from sex until marriage.

The findings of the study indicate that 205(6.8%) of the total number of respondents strongly agree that it is better to abstain from sex until graduation. 30(10%) of the total number of respondents slightly agreed that it is better to abstain from sex until graduation. 12(4%) of the total number of respondents neither agreed nor disagreed that it is better to abstain from sex until graduation. 15(5.1%) of the total number of respondents slightly disagreed that it is better to abstain from sex until graduation. 38(12.7%) of the total number of respondents disagreed strongly that it is better to abstain from sex until graduation.

The findings of the study indicate that 247(82.3%) of the total number of respondents strongly agree that it is advisable for a girl to remain virgin until marriage. 16(5.3%) of the total number of respondents slightly agreed that it is advisable for a girl to remain virgin until marriage. 5(1.7%) of the total number of respondents neither agreed nor disagreed that it is advisable for a girl to remain virgin until marriage. 5(1.7%) of the total number of respondents slightly disagreed that it is advisable for a girl to remain virgin until marriage. 27(9%) of the total number of respondents disagreed strongly that it is advisable for a girl to remain virgin until marriage.

The findings of the study indicate that 42(14%) of the total number of respondents strongly agree that it is alright for students to have sex before marriage if they use methods to prevent pregnancy. 51(17%) of the total number of respondents slightly agreed that it is alright for students to have sex before marriage if they use methods to prevent pregnancy. 29(9.7%) of the total number of respondents neither agreed nor disagreed that it is alright for students to have sex before marriage if they use methods to prevent pregnancy. 32(10.7%) of the total number of respondents slightly disagreed that it is alright for students to have sex before marriage if they use methods to prevent pregnancy. 146(48.7%) of the total number of respondents disagreed strongly that it is alright for students to have sex before marriage if they use methods to prevent pregnancy.

The findings of the study indicate that 219(73%) of the total number of respondents strongly agree that Extra marital sex leads to marital problems. 28(9.3%) of the total number of respondents slightly agreed that Extra marital sex leads to marital problems. 8(2.6%) of the total number of respondents neither agreed nor disagreed that Extra marital sex leads to marital problems. 9(3%) of the total number of respondents slightly disagreed that Extra marital sex leads to marital problems. 36(12%) of the total number of respondents disagreed strongly that Extra marital sex leads to marital problems.

The findings of the study indicate that 25(8.3%) of the total number of respondents strongly agree that Sex without love is ok. 6(2%) of the total number of respondents slightly agreed that Sex without love is ok. 15(5%) of the total number of respondents neither agreed nor disagreed that Sex without love is ok. 8(2.7%) of the total number of respondents slightly disagreed that Sex without love is ok. 246(82%) of the total number of respondents disagreed strongly that Sex without love is ok. Generally the findings of the study indicated that Sex without love is not ok.

The findings of the study on the SJUT female students' attitude towards sex indicate that 253(84.3%) of the total number of respondents had a favorable

attitude towards sex. 47(15.9%) of the total number of respondents had unfavorable attitude towards sex.

Generally from the study findings it can be noted that; it is all right to have a boyfriend during University life, it is wrong for unmarried students to kiss each other, it is unnatural for female to initiate sex, it is better to abstain from sex until marriage, it is better to abstain from sex until graduation, it is advisable for a girl to remain virgin until marriage, it is not alright for students to have sex before marriage if they use methods to prevent pregnancy, extra marital sex leads to marital problems and lastly students had a favourable attitude towards sex.

4.5 Awareness of Respondents about Emergency Contraception

Here the study tries to find out if the respondents have awareness about emergency contraception, taking account of they have ever heard of them, where they got the information, the types of contraception they have used as EC, and the time limit for using emergency contraceptives.

Table 4.7: Awareness about emergency contraceptives among female SJUT students

Characteristics	Frequency	Percentage (%)
Ever Heard about EC		
Yes	209	69.7
No	91	30.3
Source of information on EC		
Leaflet	26	8.7
Radio and TV	116	38.7
Health education	93	31
From the college	65	21.7
Type of contraceptives used as EC		
Pills	169	56.3
IUCD	34	11.3
Both	57	19
Don't know	40	13.3
Type of Drugs used in EC		
The same as in ordinary contraception	140	46.7
The same one but stronger	126	42
Don't know	34	11.3
What is the time limit for taking emergency contraceptive pills after unprotected sex?		
Within 12 hours	49	16.3
Within 24 hours	54	18
Within 48 hours (2 days)	20	6.7
Within 72 hours (3 days)	96	32
Don't know	81	27

Source: Study findings (2016)

Interpretation

The findings of the study indicate that 209(69.7%) of the total number of respondents have ever heard about Emergency Contraceptives. 91(30.3%) of the total number of students have never heard about emergency contraceptives. Generally from the study findings it can be noted that majority of the respondents have ever heard about emergency contraceptives.

The findings of the study show that 26(8.7%) of the total number of respondents had leaflets as their source of information on emergency contraceptives. 116(38.7%) of the total number of respondents had radio and TV as their source of information on emergency contraceptives. 93(31%) of the total number of respondents had health education as their source of information on emergency contraceptives. 65(21.7%) of the total number of respondents had university as their source of information on emergency contraceptives.

Generally the findings of the study indicate that respondents got information about emergency contraceptive from leaflets, radio and TV, from university or college, and lastly from health education.

The findings of the study showed that 169(56.3%) of the total number of respondents used pills contraceptives as EC, 34(11.3%) of the total number of respondents used IUCD contraceptives as EC. 57(19%) of the total number of respondents used both pills and IUCD contraceptives as EC. 40(13.3%) of the total number of respondents never knew any type of contraceptive used as EC.

Generally the findings of the study indicated that majority of the respondents used pills contraceptives as Emergency contraceptives.

The findings of the study indicated that 140(46.7%) of the total number of respondents used the types of drug which were the same as in ordinary contraception. 126(42%) of the total number of respondents used the types

of drugs that was the same one but stronger as EC. 34(11.3%) of the total number of respondents never knew the type of drugs used as EC.

Generally the findings of the study indicated that most respondents used drug the same as in ordinary contraception and others used the same drug but stronger.

The findings of the study indicated that the time limit for taking emergency contraceptive pills after unprotected sex was within 12 hours and this was represented by 49%(16.3%) of the total number of respondents. 54(18%) of the total number of respondents acknowledged that the time limit for taking emergency contraceptive pills after unprotected sex was within 24 hours. 20(6.7%) of the total number of respondents acknowledged that the time limit for taking emergency contraceptive pills after unprotected sex was Within 48 hours (2 days). 96(32%) of the total number of respondents acknowledged that the time limit for taking emergency contraceptive pills after unprotected sex was Within 72 hours (3 days).81(27%) of the total number of respondents didn't know the time limit for taking emergency contraceptive pills after unprotected sex.

Generally from the findings of the study, it can be noted that the time limit for taking emergency contraceptive pills after unprotected sex was between within 12 hours and 72 hours (3 days).

4.5.1 Knowledge about emergency contraceptives among SJUT female students

Here the study was interested in looking at; the time limit for having an IUD (coil) fitted after unprotected sex, where can a woman obtain emergency contraception, and lastly the effectiveness of IUCD in preventing a pregnancy.

Table 4.8: Knowledge about emergency contraceptives among SJUT female students

Characteristics	Frequency	Percentage (%)
What is the time limit for having an IUD (coil) fitted after unprotected sex?		
Within 12 hours	35	11.7
Within 24 hours	90	30
Within 48 hours (2 days)	77	25.7
Within 72 hours (3 days)	68	22.7
Within 4 days 10	12	4
Within 5 days	18	6
Where can a woman obtain emergency contraception?		
Hospital /health centre	144	48
Community worker	27	9
private clinic	37	12.3
Pharmacy	64	21.3
supermarket	3	1
Different health institutions	25	8.3
How effective is IUCD in preventing a pregnancy?		
99%	113	37.7
75%	35	11.7
50%	7	2.3
not sure	145	48.3

Source: Study findings (2016)

Interpretation

The finding of the study indicated that the time limit for having an IUD (coil) fitted after unprotected sex was within 12 hours and this was represented by 35(11.7%) of the total number of respondents. The finding of the study indicated that the time limit for having an IUD (coil) fitted after unprotected sex was within 24 hours and this was represented by 90(30%) of the total number of respondents. 77(25.7%) of the total number of respondents acknowledged that the time limit for having an IUD (coil) fitted after unprotected sex was 48 hours(2days). 68(22.7%) of the total number of respondents acknowledged that the time limit for having an IUD (coil) fitted after unprotected sex was 72 hours(3 days). 12(4%) of the total number of respondents acknowledged that the time limit for having an IUD (coil) fitted after unprotected sex was 4 days. 18(6%) of the total number of respondents acknowledged that the time limit for having an IUD (coil) fitted after unprotected sex was 5 days.

Generally from the study findings it can be noted that majority of the respondents acknowledge that the time limit for having an IUD (coil) fitted after unprotected sex was 72 hours(3 days) and below.

The findings of the study indicated that a woman can obtain emergency contraception from Hospital /health centre and that was represented by 144(48%) of the total number of respondents. 27(9%) of the total number of respondents indicated that a woman can obtain emergency contraception from community worker. 37(12.3%) of the total number of respondents indicated that a woman can obtain emergency contraception from private clinic. 64(21.3%) of the total number of respondents indicated that a woman can obtain emergency contraception from pharmacy. 3(1%) of the total number of respondents indicated that a woman can obtain emergency contraception from supermarket. 25(8.3%) of the total number of respondents indicated that a woman can obtain emergency contraception from different health institutions.

Generally the findings of the study indicated that most respondents obtained emergency contraception from Hospital /health centre, Community worker, private clinic, Pharmacy and supermarket.

The findings of the study indicated that IUCD were 99% effective in preventing pregnancy and this was represented by 113(37.7%) of the total number of respondents. 35(11.7%) of the total number of respondents acknowledged that IUCD were 75% effective in preventing pregnancy. 7(2.3%) of the total number of respondents acknowledged that IUCD were 50% effective in preventing pregnancy. 145(48.3%) of the total number of respondents were not sure on whether IUCD was effective in preventing a pregnancy.

Generally the findings of the study indicated that most respondents acknowledged that IUCD was effective in preventing a pregnancy.

4.5.2 Knowledge about emergency contraceptives among female SJUT students

Here the study was interested in finding out the following; effectiveness of emergency Contraceptive Pills in preventing pregnancy and safety of emergency birth control methods for most women.

Table 4.9: Knowledge about emergency contraceptives among female SJUT students

Characteristics	Frequency	Percentage (%)
How effective is Emergency Contraceptive Pills in preventing pregnancy		
< 75%	33	11
75-85%	96	32.1
> 85%	36	12
not sure	135	45
How safe do you think emergency birth control methods are for most women?		
very safe	43	14.3
Safe	152	50.7
Unsafe	71	23.7
no response	34	11.3

Source: Study findings (2016)

Interpretation

The findings of the study indicate that 33(11%) of the total number of respondents indicated that Emergency Contraceptive Pills were less than 75% (<75%) effective in preventing pregnancy. The findings of the study indicate that 96(32.1%) of the total number of respondents indicated that Emergency Contraceptive Pills were 75-85% effective in preventing pregnancy. 36(12%) of the total number of respondents acknowledged that Emergency Contraceptive Pills were greater than 85%(>85%) effective in preventing pregnancy. 135(45%) of the total number of respondents were not sure whether Emergency Contraceptive Pills were effective in preventing pregnancy.

Generally from the study findings, it can be noted that emergency contraceptives pills were 75% and above effective in preventing pregnancy.

43(14.3%) of the total number of respondents acknowledge that emergency birth control methods were very safe for most women. The findings of the study indicated that 152(50.7%) of the total number of respondents acknowledged that birth control methods were safe for most women. The findings of the study indicated that 71(23.7%) of the total number of respondents acknowledged that birth control methods were unsafe for most women. The findings of the study indicated that 34(11.3%) of the total number of respondents gave no response on whether birth control methods were safe for most women.

Generally from the study findings, it can be noted that most respondents acknowledged that emergency birth control methods were safe for most women.

4.6 Attitude of respondents towards Emergency contraception

Here the respondents again were questioned about their attitudes towards emergency contraception. As shown in the table below, a set of five statements pertaining to emergency contraception, were included in the questionnaire and they included; the provision of EC to students would encourage promiscuity, the provision of EC would discourage compliance to

other contraceptive method, repeated use of EC poses a health risk, EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse, and lastly EC should be available over the counter, without prescription.

The students were asked to record whether they agreed strongly, agreed slightly, had no opinion about the statement under consideration, disagree slightly, disagree strongly (a five-point Likert scale).

Table 4.10: Attitude towards emergency contraception among SJUT female students.

Attitude indicators	Agree strongly	Agree slightly	Neither agree nor disagree	Disagree slightly	Disagree strongly
The provision of EC to students would encourage promiscuity	36(12%)	33(11%)	26(8.7%)	45(15.1%)	160(53.3%)
The provision of EC would discourage compliance to other contraceptive method	32(10.7%)	51(17%)	40(13.3%)	28(9.3%)	149(49.7%)
Repeated use of EC poses a health risk	20(6.7%)	33(11%)	121(40.3%)	21(7%)	105(35%)
EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse.	13(4.3%)	19(6.3%)	36(12%)	84(28%)	148(49.3%)
EC should be available over the counter, without prescription.	173(57.7%)	36(12%)	44(14.7%)	17(5.7%)	30(10%)
Attitude towards EC (Summary index)					
Favourable attitude	190(63.3%)				
Unfavourable attitude	110(36.7%)				

Source: Study findings (2016)

Interpretation

The findings of the study indicated that 36(12%) of the total number of respondents strongly agreed that the provision of EC to students would encourage promiscuity. 33(11%) of the total number of respondents agreed slightly that the provision of EC to students would encourage promiscuity. 26(8.7%) of the total number of respondents neither agreed nor disagreed that the provision of EC to students would encourage promiscuity. 45(15.1%) of the total number of respondents disagreed slightly that the provision of EC to students would encourage promiscuity. 160(53.3%) of the total number of respondents disagreed strongly that the provision of EC to students would encourage promiscuity.

Generally the findings of the study indicated that most respondents disagreed that the provision of EC to students would encourage promiscuity.

The findings of the study indicated that 32(10.7%) of the total number of respondents strongly agreed that the provision of EC would discourage compliance to other contraceptive method. 51(17%) of the total number of respondents agreed slightly that the provision of EC would discourage compliance to other contraceptive method. 40(13.3%) of the total number of respondents neither agreed nor disagreed that the provision of EC would discourage compliance to other contraceptive method. 28(9.3%) of the total number of respondents disagreed slightly that the provision of EC would discourage compliance to other contraceptive method. 149(49.7%) of the total number of respondents disagreed strongly that the provision of EC would discourage compliance to other contraceptive method.

Generally the findings of the study indicated that most respondents disagreed that the provision of EC would discourage compliance to other contraceptive method.

The findings of the study indicated that 20(6.7%) of the total number of respondents strongly agreed that the repeated use of EC poses a health risk. 33(11%) of the total number of respondents agreed slightly that the repeated use of EC poses a health risk. 121(40.3%) of the total number of

respondents neither agreed nor disagreed that the Repeated use of EC poses a health risk. 21(7%) of the total number of respondents disagreed slightly that the repeated use of EC poses a health risk. 105(35%) of the total number of respondents disagreed strongly that the repeated use of EC poses a health risk.

Generally the findings of the study indicated that most respondents disagreed that the repeated use of EC poses a health risk.

The findings of the study indicated that 13(4.3%) of the total number of respondents strongly agreed that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse. 19(6.3%) of the total number of respondents agreed slightly that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse. 36(12%) of the total number of respondents neither agreed nor disagreed that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse. 84(28%) of the total number of respondents disagreed slightly that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse. 148(49.3%) of the total number of respondents disagreed strongly that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse.

Generally the findings of the study indicated that most respondents disagreed that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse.

The findings of the study indicated that 173(57.7%) of the total number of respondents strongly agreed that the EC should be available over the counter, without prescription. 36(12%) of the total number of respondents agreed slightly that the EC should be available over the counter, without prescription. 44(14.7%) of the total number of respondents neither agreed nor disagreed that the EC should be available over the counter, without prescription. 17(5.7%) of the total number of respondents disagreed slightly that the EC should be available over the counter, without prescription.

30(10%) of the total number of respondents disagreed strongly that the EC should be available over the counter, without prescription.

Generally the findings of the study indicated that most respondents agreed that the EC should be available over the counter, without prescription.

Summarily on the attitude towards EC, the findings of the study indicated that 190(63.3%) of the total number of respondents had favorable attitude and 110(36.7%) of the total number of respondents had unfavorable attitude.

4.7 Respondents' Sexual Practice

Respondents were asked whether they ever had sexual intercourse, and if so whether they had history of pregnancy, at what age did they first become pregnant, whether the pregnancy was planned, outcome of the pregnancy, number of abortions and place of abortion.

Table 4.11: Sexual practice among SJUT female students

Practice indicators	Frequency	Percentage (%)
Do you have history of sexual practice?		
Yes	110	36.7
No	190	63.3
Do you have history of pregnancy?		
Yes	139	46.3
No	161	53.7
Age at first pregnancy		
less than or equal 15	20	6.7
15-19	130	43.3
20+	150	50
Was the pregnancy planned?		
Yes	65	21.7
No	235	78.3
Outcome of the pregnancy		
has been delivered	15	5
safe abortion	155	51.7
unsafe abortion	130	43.3
Number of abortion		
Once	277	92.3
Twice	23	7.7
Place of abortion		
Home	92	30.7
Clinic	208	69.3

Source: Study findings (2016)

Interpretation

The findings of the study showed that 110(36.7%) of the total number of respondents had history of sexual practice. 190(63.3%) of the total number of respondents had no history of sexual practice.

Generally the findings of the study showed that most respondents had no history of sexual practice at St John's University of Tanzania.

The findings of the study showed that 139(46.3%) of the total number of respondents had history of pregnancy. 161(53.7%) of the total number of respondents had no history of pregnancy.

Generally the findings of the study showed that most respondents had no history of pregnancy at St John's University of Tanzania.

The findings of the study showed that 20(6.7%) of the total number of respondents had less than or equal to 15 years of age at first pregnancy. 130(43.3%) of the total number of respondents had their first pregnancy at the age of between 15- 19 years. 150(50%) of the total number of respondents had their first pregnancy at the age of 20 and above years.

Generally the findings of the study showed that most respondents had their first pregnancy from 15 and above years.

The findings of the study showed that 65(21.7%) of the total number of respondents had planned their first pregnancy. 235(78.3%) of the total number of respondents had not planned for their first pregnancy.

Generally the findings of the study showed that most respondents had not planned to have their first pregnancy.

The findings of the study indicated that 15(5%) of the total number of respondents had delivered their first pregnancy. 155(51.7%) had had a safe abortion of the first pregnancy. 130(43.3%) of the total number of respondents had had unsafe abortion.

Generally the findings of the study indicated that majority of the respondents had had both safe and unsafe abortion.

The findings of the study indicated that 277(92.3%) of the total number of respondents once had abortion. 23(7.7%) of the total number of respondents had had abortion twice. Generally from the findings of the study, most respondents had had abortion once.

The findings of the study indicated that 92(30.7%) of the total number of respondents aborted from home. 208(69.3%) of the total number of respondents aborted from clinic. Generally the findings of the study indicated that most respondents aborted from clinic.

4.8 Respondents' utilization of emergency contraception

Here the study was interested in finding out whether the respondents had ever used emergency Contraceptive pills, how many times had the respondent used this method during the last year, who recommended the use of EC, who provided EC to them, why they used EC, and lastly the challenges they faced to get EC.

Table 4.12: Practice on emergency contraception among SJUT female university students

Practice indicators	Frequency	Percentage (%)
Have you ever used emergency Contraceptive pills?		
Yes	46	15.3
No	254	84.7
How many times have you used this method during the last year?		
Once	213	71
Twice	87	29
Who recommend use of EC?		
a friend	30	10
male partner	72	24
health professional	198	66
Who did provide it to you?		
Nurses	205	68.3
Pharmacist	95	31.7
Why did you use EC?		
Time was miscalculated	190	63.3
Condom broke	24	8
Pills missed	50	16.7
Withdrawal failed	36	12
What were the challenges you faced to get EC?		
Price	14	4.7
Not available in pharmacies	170	56.7
Fear of stigma	70	23.3
Lack of knowledge	46	15.3

Source: Study findings (2016)

Interpretation

The findings of the study indicated that 46(15.3%) of the total number of respondents had ever used emergency Contraceptive pills. 254(84.7%) of the total number of respondents had never used emergency Contraceptive pills. Generally the findings of the study indicated that most respondents had never used ever used emergency Contraceptive pills.

The findings of the study indicated that 213(71%) of the total number of respondents had once used emergency contraceptive pills method during the last year. 87(29%) of the total number of respondents indicated that they had used emergency contraceptive pills twice during the last year. Generally the findings of the study indicated that most respondents had used emergency contraceptive pills method once.

The findings of the study indicated that 30(10%) of the total number of respondents were recommended to use EC by a friend. 72(24%) of the total number of respondents were recommended to use EC by their male partner. 198(66%) of the total number of respondents were recommended to use EC by a health professional. Generally the findings of the study indicated that most respondents were recommended to use EC by a health professional.

The findings of the study indicated that 205(68.3%) of the total number of respondents were provided with emergency Contraceptive pills by nurses. 95(31.7%) of the total number of respondents were provided with emergency Contraceptive pills by pharmacist. Generally the findings of the study indicated that most respondents were provided with emergency Contraceptive pills by nurses.

The findings of the study indicated that 190(63.3%) of the total number of respondents used EC due to the time being miscalculated. 24(8%) of the total number of respondents used EC because the condom broke. 50(16.7%) of the total number of respondents used EC because of missing pills. 36(12%) of the total number of respondents used EC because withdraw failed.

Generally from the findings of the study, it can be noted that most respondents used EC due the time being miscalculated, the condom broke, pills missed and lastly withdrawal failed.

The findings of the study indicated that 14(4.7%) of the total number of respondents faced the challenge of price to get EC. 170(56.7%) of the total number of respondents faced the problem of EC not being available in

pharmacies. 70(23.3%) of the total number of respondents faced the problem of fear of stigma as one of the challenges faced to get EC. 46(15.3%) of the total number of respondents faced a problem of lack of knowledge to get EC.

Generally from the findings of the study, it can be noted that the respondents faced the following challenges in getting EC; Price, Not available in pharmacies, Fear of stigma, and lastly lack of knowledge.

4.9 DISCUSSION OF KEY FINDINGS

The discussion of the findings based on the specific objectives namely; to assess the students' knowledge about EC among SJUT female students, to assess students' attitudes about sex and how can these affect their use of EC among St John's University of Tanzania female students, to assess the utilization level of emergency contraceptive among the SJUT female students and lastly to utilize findings to develop practical recommendations to the SJUT female students.

Generally the findings of the study indicated that majority of the disbursed questionnaires were returned by the respondents and this was represented (300) 75% response rate. This was a reliable response rate for data analysis as Mugenda ,(2003) pointed that for generalization a response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and over is excellent.

On the different age groups that the respondents fell in, the study found that majority of the respondents were below 24 years of age. This is in line with the study of Tanzania Demographic and Health Survey, (2010) that reported that there was contraceptive frequency use rate of 19% among female aged between 20 and 24 years, and the teenager pregnancy rate of 44%.

On whether the respondents lived with friends, family or alone, the study found that different respondents lived with different people such as family, friends and others alone. This is supported by the study of Sujay,(2009) that noted that University life is characterized for many students, by more

independence and opportunities for social mixing than before. Many students, moreover, begin to reside independently, that is, in hostels and private accommodations away from their families; others who continue to reside with their families may be less supervised by parents than when they were in school.

On whether it is alright to have a boyfriend during University life, the study found that most respondents agreed that it is all right to have a boyfriend during University life. This is supported by the study of Tilahun ,et al. (2010) that noted that for most of the youth, college represented a shift towards greater independence from home and school settings, an opportunity to form new friendships.

On whether it is wrong for unmarried students to kiss each other, the study found that it is wrong for unmarried students to kiss each other. This is contrary to the study of Tilahun. et al (2010) that noted that for most of the youth, college represented an opportunity to experience romantic and or sexual relationships.

On whether it is unnatural for female to initiate sex, the study found that most respondents agreed that it was unnatural for female to initiate sex. This finding is supported by the study of Onyensoh, et al. (2012) that noted that a high level of early sexual initiation and low contraceptive use placed these adolescents at risk of pregnancy and STIs.

On whether it is better to abstain from sex until marriage, to abstain from sex until graduation. The study found that most respondents agreed that was better to abstain from sex until marriage and sex abstain from sex until graduation. This study finding is supported by the study of Grimes, (2006) which noted that unprotected sexual intercourse taking place without barrier methods such as; failure to abstain on a fertility day of the cycle in a women who uses the calendar method.

On whether it is alright for students to have sex before marriage, the study found that most respondents disagreed that it is alright for students to have

sex before marriage if they use methods to prevent pregnancy. This is contrary to the study of Tamire, (2007) that noted that of those who are sexually active, about 6% started sex before the age of 15 and 16% started sex between 15 to 19 years of age. Freitas, (2007) observed that the majority started having sexual intercourse at an early age; 56% of adolescents stated that premarital sex was an acceptable act (if the couple were in love or engaged),

On whether extra marital sex leads to marital problems, the study findings indicated that most respondents agreed that extra marital sex led to marital problems. This is supported by the study of Kolawole, et al. (2011) that explored the knowledge of female students about EC, knowing fully that almost all the female students especially those who were engaged in pre-marital sex use it. The study finding is also in line with the study of Gebreyohannis, (2009) that revealed that the prevalence of premarital sex among those that ever had sexual experience was 72.2%.

On whether Sex without love is ok, the study noted that most respondents disagreed that Sex without love was not ok. This finding is in line with the study of Freitas, (2007) that noted that adolescents stated that premarital sex was an acceptable act (if the couple were in love or engaged).

On whether the respondents have ever heard about EC, the study noted that majority of the respondents have ever heard about emergency contraceptives. This finding is supported by the study of Wegene and Fikre (2005) that noted that about 43.5% (95% CI 40.0 - 47.0%) of the students acknowledged that they have heard about emergency contraceptives. The study finding is also supported by Ahimed, et al. (2012) that on 368 undergraduate university students to assess their knowledge, attitude and practice of emergency contraception, showed that participants who had ever heard of EC were 84.2%.

On the source of information on EC to the respondents, the study found that respondents got information about emergency conceptive from leaflets, radio and TV, from university or college, and lastly from health education.

This is supported by the study of Ahimed, et al. (2012) that suggested health education initiatives should target such students as they are more likely to be sexually active. The study finding is also supported by the study of Mosh, et al. (2011) that concluded that educational strategies should be designed and implemented to ensure access to accurate information on EC, such information should be made available whenever a woman requests emergency contraception. Tamire, (2007) and Mengistu, (2007) noted that mass media in which main source was from health education by health workers in the health institutions (55.3%).

On the type of contraceptives used as EC, the study findings noted that most respondents used pills, IUCDs and others used both contraceptives as Emergency contraceptives. This study finding is supported by the study of Friedman et al.(2003) which noted that pills have the capacity to prevent pregnancy by 75-85% and with the use of Intra uterine devices (IUCDs), unwanted pregnancy can be prevented by as much as 99%.

On the type of Drugs used in EC, the study found that most respondents used drug the same as in ordinary contraception and others used the same drug but stronger. This is supported by the study of Trussell, et al. (1998) that noted that ECPs are ordinary birth control pills containing the hormones oestrogen and progestin. The study finding is also supported by Trussell, et al. (2016) who added that certain ordinary birth control pills can be used in specified combinations as emergency contraception.

On the time limit for taking emergency contraceptive pills after unprotected sex. The study found that the time limit for taking emergency contraceptive pills after unprotected sex was between within 12 hours and 72 hours (3 days). This is supported by the study of Friedman ,et al.(2003) that noted that when emergency contraception are used within 72 hours after sexual contact pills have the capacity to prevent pregnancy by 75-85% and with the use of Intra uterine devices (IUCDs), unwanted pregnancy can be prevented by as much as 99%.

On what is the time limit for having an IUD (coil) fitted after unprotected sex, the study noted that majority of the respondents acknowledge that the time limit for having an IUD (coil) fitted after unprotected sex was 72 hours(3 days) and below. This is supported by the study of WHO, (2012) that noted that Copper-bearing IUD, as an emergency contraceptive is inserted within five days of unprotected intercourse. This may be an ideal emergency contraceptive for a woman who is hoping for an ongoing, highly effective contraceptive method.

With regard to how effective is IUCD in preventing a pregnancy, the study found that most respondents acknowledged that IUCD was effective in preventing a pregnancy. This is supported by the study of Friedman, et al.(2003) that noted that with the use of Intra uterine devices (IUCDs), unwanted pregnancy can be prevented by as much as 99%.

On how effective is Emergency Contraceptive Pills in preventing pregnancy, the study found that emergency contraceptives pills were 75% and above effective in preventing pregnancy. This is supported by the study of Friedman, et al.(2003) noted that when emergency contraception are used within 72 hours after sexual contact, pills have the capacity to prevent pregnancy by 75-85% and with the use of Intra uterine devices (IUCDs), unwanted pregnancy can be prevented by as much as 99%.

On how safe do you think emergency birth control methods are for most women. The study found that most respondents acknowledged that emergency birth control methods were safe for most women. This is supported by the study of WHO, (2012) that noted that emergency contraception pills are very safe and do not cause abortion or harm future fertility. Side-effects are uncommon and generally mild.

On whether the respondent had history of sexual practice, the study found that most respondents had no history of sexual practice at St John's University of Tanzania. This finding is contrary to the study of Tamire and Enqueselassie, (2007) that revealed that the number of students who had positive attitude towards sexual practice and the number of those who are

experiencing penetrative sex and induced abortion were increasing from time to time. This study is also contrary to the study of Tamire, (2007) that noted that the respondents had ever had sex in the past.

On the history of pregnancy, the study found that most respondents had no history of pregnancy at St John's University of Tanzania. This is supported by the study of Lemma, (2009) that noted that early sexual debut, limited knowledge of sexual physiology, limited use of contraceptives, limited access to RH information and girls' limited control over their sex lives all contribute to the high rate of unwanted pregnancy.

On whether the respondent's pregnancy was planned, the study found that most respondents had not planned to have their first pregnancy. This is supported by the study of Kahn, (2005) that noted that about 46 million pregnancies (22 percent of the total pregnancies and 61 percent of the unplanned/unintended pregnancies).

On the age at first pregnancy, the study found that most respondents had their first pregnancy from 15 and above years. This is supported by the study of Tamire, (2007) that noted the respondents had ever heard sex in the past. 6.8% of the total respondents and 35.1% of those who are sexually active. Almost half of those who were pregnant were below the age of 20 years and two of whom below the age of 15 years

On the outcome of the pregnancy, the study indicated that majority of the respondents had both safe and unsafe abortion. This supported by the study of Tamire, (2007), 65.0% (n=39) of them gone into induced abortion in which 43.3% (n=26) of them were unsafe. Ayana, (2008) low rate of safe abortion, high rate of unsafe abortion and high rate of unwanted pregnancy and delivery in this study could be due to lack of health facilities with skilled human power, lack of awareness where to get safe preventive methods and economic problems made the respondents to take measures that threaten their life or darken their future carrier.

Looking on the Number and place of abortion, the study found that most respondents had had abortion once and aborted from clinic. This finding is supported by the study of (Federal ministry of health of Ethiopia) (FMOH, 2006) that noted that unsafe abortion accounts for nearly 60% of all gynaecological admissions and almost 30.0% of all obstetric admission, Abera and Tebeje,(2009) noted that about 22-54% of direct obstetric deaths are due to unsafe abortion. EC is increasingly regarded as a means to reduce abortion rates.

Lying on whether respondents have ever used emergency Contraceptive pills, the study found that most respondents had never ever used emergency Contraceptive pills. This is supported by the study of Adhikari, (2009) that noted that awareness of sexual and reproductive matters was relatively limited and fewer than half of all students had been exposed to sexuality education in school or college. Lemma, (2009) recommended that EC promotion and use in the country would reduce the incidence of unwanted pregnancies.

Focused on why use EC, the study found that most respondents used EC due to the time being miscalculated, the condom broke, pills missed and lastly withdrawal failed, this is supported by the study of Stewart, et al. (2007) that noted EC is a therapy for women who had ever unprotected sexual intercourse, including sexual assault and known or suspected contraceptive failure, and want to avoid pregnancy. The two most common reasons for seeking EC are failure of a barrier method (usually condoms) and failure to use any contraceptive method.

4.10 Chapter summary

This chapter provides a detailed analysis of the data collected from field after the researcher disseminated the list of questionnaires to the respected respondents namely SJUT female students. The disseminated questionnaires intended to investigate the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students of Tanzania. Considerations were both in primary and

secondary data with a view of having detailed report that explains the real knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students.

Furthermore in depth discussion was made purposely to show the relationship between collected data and research objectives.

The discussion of the findings based on the specific objectives namely; to assess the students' knowledge about EC among SJUT female students, to assess students' attitudes about sex and how can these affect their use of EC among St John's University of Tanzania female students, to assess the utilization level of emergency contraceptive among the SJUT female students and lastly to utilize findings to develop practical recommendations to the SJUT female students.

Conclusively; majority of the disbursed questionnaires were returned by the respondents and this was represented (300)75% response rate, majority of the respondents were below 24 years of age, majority of the respondents were in their bachelor degree, most of the respondents were unmarried different respondents lived with different people such as family, friends and others alone, it was all right to have a boyfriend during University life, it was wrong for unmarried students to kiss each other, it was unnatural for female to initiate sex, it was better to abstain from sex until marriage, it was better to abstain from sex until graduation, it was advisable for a girl to remain virgin until marriage, it was alright for students to have sex before marriage if they use methods to prevent pregnancy, Extra marital sex led to marital problems and lastly students had a favorable attitude towards, majority of the respondents had ever heard about emergency contraceptives, respondents got information about emergency conceptive from leaflets, radio and TV, from university or college, and lastly from health education, majority of the respondents used pills contraceptives as Emergency contraceptives, respondents used drug the same as in ordinary contraception and others used the same drug but stronger, the time limit for taking emergency contraceptive pills after unprotected sex was between

within 12 hours and 72 hours (3 days),majority of the respondents acknowledge that the time limit for having an IUD (coil) fitted after unprotected sex was 72 hours(3 days) and below, most respondents obtained emergency contraception from Hospital /health centre, Community worker, private clinic, Pharmacy and supermarket, most respondents acknowledged that IUCD was effective in preventing a pregnancy, emergency contraceptives pills were effective in preventing pregnancy, most respondents acknowledged that emergency birth control methods were safe for most women, most responds disagreed that the provision of EC to students would encourage promiscuity, most respondents disagreed that the provision of EC would discourage compliance to other contraceptive method, most responds disagreed that the repeated use of EC poses a health risk, most respondents disagreed that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse, most respondents agreed that the EC should be available over the counter, without prescription, most respondents had no history of sexual practice at St John's University of Tanzania, most respondents had no history of pregnancy at St John's University of Tanzania, the majority respondents had their first pregnancy from 15 and above years, most respondents had not planned to have their first pregnancy, majority of the respondents had both safe and unsafe abortion, most respondents had had abortion once, a good number respondents aborted from clinic, most respondents had never ever used emergency contraceptive pills, most respondents had used emergency contraceptive pills method once, nearly all respondents were recommended to use EC by a health professional, most respondents were provided with emergency Contraceptive pills by nurses, most respondents used EC due the time being miscalculated, the condom broke, pills missed, withdrawal failed, and lastly the respondents faced the following challenges in getting EC; Price, Not available in pharmacies, fear of stigma, and lastly lack of knowledge.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS OF THE FINDINGS

5.1 Chapter overview

The purpose of this study was to explore the knowledge, attitude and practice of female University students towards unprotected sex and emergency contraceptives. This chapter discusses the conclusion with reference to the objectives and findings, points out the limitations of the study and makes recommendations for practice and further research.

5.2 Summary of the findings

Evidence from a study on the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students. There is a high level on the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students in Tanzania. Before the actual final data collection, a pilot study was conducted where the content validity and reliability of the questionnaires were tested. The validity was enhanced through discussion of the questionnaire contents with St John's University of Tanzania randomly selected students. The reliability was tested through statistical package for social sciences (SPSS) version 16.0 was used to satisfy the reliability tests. The study sample had 400 questionnaires distributed and 300 were duly completed and returned for analysis. The major findings of the study were that; majority of the disbursed questionnaires were returned by the respondents and this was represented 75% response rate, majority of the respondents were below 24 years of age, majority of the respondents were in their bachelor degree, most of the respondents were unmarried different respondents lived with different people such as family, friends and others alone, it is all right to have a boyfriend during University life, it is wrong for unmarried students to kiss each other, it is unnatural for female to initiate sex, it is better to abstain from sex until marriage, it is better to abstain from sex until graduation, it is advisable for a girl to remain virgin until marriage, it is alright for students to have sex before marriage if they use methods to prevent pregnancy, extra marital sex leads to marital problems and lastly

students had a favorable attitude towards sex, majority of the respondents have ever heard about emergency contraceptives, respondents got information about emergency contraceptive from leaflets, radio and TV, from university or college, and lastly from health education, majority of the respondents used pills contraceptives as Emergency contraceptives, respondents used drug the same as in ordinary contraception and others used the same drug but stronger, the time limit for taking emergency contraceptive pills after unprotected sex was between within 12 hours and 72 hours (3 days),majority of the respondents acknowledge that the time limit for having an IUD (coil) fitted after unprotected sex was 72 hours(3 days) and below, most respondents obtained emergency contraception from hospital /health centre, Community worker, private clinic, Pharmacy and supermarket, most respondents acknowledged that IUCD was effective in preventing a pregnancy, emergency contraceptives pills were effective in preventing pregnancy, most respondents acknowledged that emergency birth control methods were safe for most women, most responds disagreed that the provision of EC to students would encourage promiscuity, most responds disagreed that the provision of EC would discourage compliance to other contraceptive method, most responds disagreed that the repeated use of EC poses a health risk, most respondents disagreed that the EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse, most responds agreed that the EC should be available over the counter, without prescription, most respondents had no history of sexual practice at St John's University of Tanzania, most respondents had no history of pregnancy at St John's University of Tanzania, most respondents had their first pregnancy from 15 and above years, most respondents had not planned to have their first pregnancy, majority of the respondents had both safe and unsafe abortion, most respondents had abortion once, most respondents aborted from clinic, most respondents had never ever used emergency Contraceptive pills, most respondents had used emergency contraceptive pills method once, the majority respondents were recommended to use EC by a health professional, most respondents were provided with emergency

Contraceptive pills by nurses, nearly all respondents used EC due the time being miscalculated, the condom broke, pills missed and lastly withdrawal failed, and lastly the respondents faced the following challenges in getting EC; Price, not available in pharmacies, fear of stigma, and lastly lack of knowledge.

5.3 Conclusion

From the study findings it's concluded that, Increasing the awareness and use of emergency contraception is one means of reducing unwanted and teenage pregnancies. Knowledge of EC is crucial and it is important that potential users including university students in general and SJUT female students in particular have information and are educated about EC before they actually need. The study finding showed that the actual level of knowledge about EC is higher as that expected from university students; with about 69.7% of the total numbers of female students were knowledgeable about EC. As university students would be expected to have higher knowledge than less educated ones. The knowledge of correct timing for emergency contraception was unconvincing in which a big proportion of respondents had little knowledge on the correct time limit for the first dose of emergency contraception. The lack of correct information about Emergency Contraceptives could be a hindrance from being put to use by individuals who need it, including the university students who are at more risk of unintended pregnancy. The utilization of EC was very low with only (15.3%) as it was expected to be among students pursuing higher education. This leads to higher chance of unintended pregnancy. Discussion of contraception awareness had significance association with increased awareness of EC. Medias, friends and schools were playing very important role in the dissemination of information to the students. Thus it's of more significant to provide the correct information and more research findings on EC concern of health service providers and different stakeholders to effect on EC service to the female students studying at the universities level.

5.4 Recommendations

In view of the conclusions and observations reported herein, the following recommendations are given;

- i. Build up information education and communication (IEC) in St John's University of Tanzania on sexual and reproductive health, with much emphasis to emergency contraceptives is a life saving system for female University students and therefore, it should be considered systematically.
- ii. The health sector should extend a number of intervention steps/work to do in terms of seminars/workshops, enlightenment, orientation and educating the students to keep away from cases of some students accidentally giving birth to children that their fathers cannot be known as a result of multiple sex partners and finally, there would be continuity in the spread of STD's.
- iii. Health clinics providing reproductive health services, only for teenager's years and young female students, should be opened over weekends and during the evenings.
- iv. Specific policies at St John's University of Tanzania should direct clinical nurses about issues such as non-judgmental attitude towards sexually active female college students and facilitating students' success with emergency contraceptive services.
- v. As the rate of unintended sexual intercourse and unwanted pregnancy were high, emergency contraception should be given a significant consideration in family planning counseling as an endorsement service to solve short coming problems of females.
- vi. Emergency contraceptives methods especially emergency contraceptive pills (ECPs),condoms should be accessible at all points of drug dispensing institutes including private, NGOs and Government pharmacies, clinics and community based distribution agents, etc. and facilitating conditions to distribute or sell with-out prescription.

- vii. To expand client's skills on Reproductive Health matters, Information education and communication (IEC) materials like pamphlet, news papers, posters etc should be accessible in the library of St John's University of Tanzania. Young people should also be allowed to talk about sexual and Reproductive Health (RH) issues with their parents, friends and others.
- viii. Emergency contraceptives should be advertised in clinics, in colleges, at schools and also through radio and television broadcasts. There is in need to strengthen the Reproductive Health clubs starting from the lower level of education to the higher to give more emphasis.
- ix. Emergency contraception and educational approaches to themes related to human sexuality must be contained in the curriculum of students with the other family planning methods.
- x. Counseling should be carried out in views of supporting and encouraging. The counselor must be able to form a relationship with the user and should communicate in a language that the user can be comprehend.
- xi. The media must actively participate in the dissemination of programmes on emergency contraception, and make a specific programme for female students. Furthermore health education initiatives should target between 18 to 25 years since such students as they are more likely to be sexually active.
- xii. SJUT should provide continuous sex education to all its students, and this should be through guidance and counselling services especially during the first year.
- xiii. The campus health workers should play significant roles by getting into the knowledge of EC deep down in the student community through individual counseling once reporting time and female students visit the clinic.

5.5 Suggestions for further studies

As the findings of this study are based on only one university, there is in need to conduct more empirical research on the knowledge, attitude and practice towards unprotected sex and emergency contraceptives among female university students in mainly academic institutions. By doing so academic institutions may end up reducing unplanned abortion and death during unsafe abortion in academic institutions.

5.6 Chapter summary

This chapter covered the summary of the study, conclusions and recommendations for future interventions. In conclusion, the study has shown that in the face of significant risk of unwanted pregnancy and induced abortion among the sexually active students, the knowledge and practice on emergency contraceptive is very low. There is a need to raise awareness about emergency contraceptives as an option with other contraception methods and revitalizing of the family life education program in universities to include among others information.

It is therefore of the utmost importance to provide the appropriate information and research findings on EC to the attention of service providers and different stakeholders to effect the impact of EC service on female students lives of the universities in the area.

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APPENDICES

QUESTIONNAIRE THAT INTENDS TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS UNPROTECTEDSEX AND EMERGENCY CONTRACEPTIVES AMONG FEMALE UNIVERSITY STUDENTS OF TANZANIA.

Dear Respondent

I, kindly request you to answer the under mentioned questions to assist me as part of the fulfilment of my research for the award of a Masters degree of arts in community development at **St John's University of Tanzania**. The questions are purely for academic research. You are kindly requested to answer all questions as indicated. English is the appropriate language to use in filling and answering this questionnaire. Please kindly consider my request and be assured that, the information obtained from you will be confidentially handled, not to be disclosed, published or shared with any other institution. I wish to express in advance my sincere appreciations for the assistance which you will furnish to in completion of this research

APPENDIX I: QUESTIONAIRES

A: TO BE FILLED BY SJUT FEMALE STUDENTS

1. BACKGROUND INFORMATION

1.1 How old are you?

- a) 18-19
- b) 20-21
- c) 22-23
- d) 24-25

1.2 What is your educational level?

- a) First year
- b) Second year
- c) Third year

1.3 What is your current marital status?

- a) unmarried
- b) Married
- c) Divorce
- d) Separated
- e) Widowed

1.4 With whom are you living now?

- a) family
- b) .friends
- c) Alone

2. ATTITUDE OF STUDENTS TOWARDS SEX

2.1 It is all right to have a boy friend during university life

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree
- d) Disagree slightly
- e) Disagree strongly

2.2 It is wrong for unmarried students to kiss each other.

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

2.3 It is unnatural for female to initiate sex

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

2.4 It is better to abstain from sex until marriage

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

2.5 It is better to abstain from sex until graduation

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

2.6 It is advisable for a girl to remain virgin until marriage.

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

2.7 It is all right for students to have sex before marriage if they use methods to prevent pregnancy

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly.

2.8 Extra marital sex leads to marital problems

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

2.9 Sex without love is okay Agree strongly

- a) Agree slightly
- b) Neither agree nor disagree.
- c) Disagree slightly
- d) Disagree strongly

3. ATTITUDE OF STUDENTS TOWARDS EMERGENCY CONTRACEPTION

3.1 The provision of EC to students would encourage (having many relationships) promiscuity

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

3.2 The provision of EC would discourage compliance to other contraceptive methods

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

3.3 Repeated use of EC pose a health risk

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

3.4 EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

3.5 EC should be available over the counter without prescription

- a) Agree strongly
- b) Agree slightly
- c) Neither agree nor disagree.
- d) Disagree slightly
- e) Disagree strongly

4. AWARENESS ABOUT EMERGENCY CONTRACEPTION

- 4.1 Among modern contraceptive methods which once do you know?
- a) Pills
 - b) Injectables
 - c) Condoms
 - d) IUDS
 - e) Tubal ligation
 - f) Vasectomy
- 4.2 Have you heard of emergency contraception that you can use after sex?
- a) Yes
 - b) No
- 4.3 If your answer for Q 4.2 is yes, from where do you heard?
- a) Reading from leaflets
 - b) Mass media
 - c) Health workers
 - d) From college
- 4.4 What type of contraception can be used in an emergency after sex?
- a) Pills
 - b) IUCD
 - c) Both
 - d) Don't know
 - e) Other, specify
- 4.5 What type of drug is used in emergency contraception?
- a) The same as in ordinary pills
 - b) The same one but stronger
 - c) I don't know

4.6 What is the time limit for taking emergency contraceptive pills after unprotected sex?

- a) Within 12 hours
- b) .Within 24 hours
- c) Within 48 hours (2 days)
- d) .Within 72 hours (3 days)
- e) Don't know
- f) Other

4.7 What is the time limit for having an IUD (coil) fitted after unprotected sex?

- a) Within 12 hours
- b) Within 24 hours
- c) Within 48 hours (2 days)
- d) Within 72 hours (3 days)
- e) Within 4 days
- f) Within 5 days
- g) Don't know
- h) Other

4.8 Places where a woman can obtain emergency contraception.

- a) Hospital /health centre
- b) Community health worker
- c) private clinic
- d) Pharmacy
- e) Supermarket
- f) Does not know
- g) Other, specify.

4.9 How effective is IUCD in preventing a pregnancy?

- a) 99%
- b) 75%
- c) 50%
- d) not sure

4.10 How effective are emergency contraceptive pills in preventing a pregnancy?

- a) <75%
- b) . >85%
- c) 75-85%
- d) Not sure

4.11 How safe do you think emergency birth control methods are for most women?

- a) very safe
- b) unsafe
- c) safe
- d) no response

5. USE OF EMERGENCY CONTRACEPTION

5.1 Have you ever used emergency Contraceptive pills?

- a) Yes
- b) no

5.2 If your answer for Q 5.1 is yes, How many times have you used this method during the last year?

- a) Once
- b) Twice
- c) Three times
- d) Doesn't remember

5.3 Who recommend it?

- a) A friend
- b) partner (male)
- c) Health professional
- d) does not remember

5.4 Who did provide it to you?

- a) Doctors
- b) Nurses
- c) Community health workers
- d) Midwives.
- e) Pharmacist
- f) Other, specify.

5.5 Why did you use it?

- a) The timing miscalculated
- b) Condom broke
- c) You missed pills
- d) because of forced sex
- e) Withdrawal failed
- f) Other specify

5.6 What were the challenges you faced to get EC?

- a) Price
- b) Not available in pharmacies
- c) Fear of stigma
- d) Lack of knowledge

6. SEXUAL PRACTICE

6.1 Do you have history of sexual practice?

- a) Yes
- b) No

6.2 If your answer for answer for question No 6.1 is yes, Do you have history of pregnancy?

- a) Yes
- b) No

6.3 If your answer for question No 6.3 is yes what was your age at first pregnancy?

- a) <15
- b) 15-19
- c) 20+
- d) No response

6.4 Was the pregnancy planned?

- a) Yes
- b) No

6.5 What was the outcome of the pregnancy?

- a) Has been delivered
- b) Safe abortion
- c) Unsafe abortion

6.6 How many abortions did you have?

- a) Once
- b) Twice
- c) Three and more

6.7 Place of abortion

- a) Home
- b) Clinic
- c) No response

THANK YOU FOR YOUR COOPERATION