AWARENESS, USE AND BARRIERS TO FAMILY PLANNING SERVICES AMONG FEMALE STUDENTS AT THE NATIONAL UNIVERSITY OF LESOTHO, ROMA,

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OL Akintade

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AWARENESS, USE AND BARRIERS TO FAMILY PLANNING SERVICES AMONG FEMALE STUDENTS AT THE NATIONAL UNIVERSITY OF LESOTHO, ROMA, LESOTHO

By

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DECLARATION

I **DR OLUWASANMI LAWRENCE AKINTADE** declare that the dissertation hereby submitted to the University of Limpopo, for the degree of Masters in Public Health has not previously been submitted by me for a degree at this or any other university; that it is my work in design and in execution, and that all material contained herein has been duly acknowledged.

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Above all I give glory to the Almighty God who is my wisdom and strength, and for another opportunity to increase in knowledge to serve my generation.

DEDICATION

This dissertation is dedicated to all families who live in communities where access to effective family planning services remains a reproductive health problem.

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Abbreviations and Acronyms

AIDS	Acquired Immunodeficiency syndrome
Epi info	Epi info statistical software
FP	Family planning
HIV	Human Immunodeficiency Virus
IUCD	Intra uterine contraceptive device
LHDS	Lesotho Demographic and Health Survey
LPPA	Lesotho planned parenthood association
MOHSW	Ministry of Health and Social Welfare
MREC	Medunsa Research and Ethics Committee
SD	Standard deviation
STI	Sexually transmitted infections
TV	Television
WHO	World Health Organization

Definition of Terms

Concepts used in this study are defined so that readers can understand researcher's interpretation of these key terms

Abortion refers to the act of bringing a pregnancy to an end thus preventing the birth of a live baby

Contraceptives refers to agents that used to prevent the occurrence of pregnancy other than abstinence

Family planning implies the use of contraceptives to plan the size of a family with respect to number of children to have and when to have them.

Maternal mortality means the death of a woman occurring as a result of pregnancy, either due to its direct complications or its effect on other medical condition of the affected woman.

Modern contraceptives method refers to contraceptives that are based on scientific knowledge of the process of conception.

Natural contraceptives method refers to the use of calendar or rhythm of a woman's menstrual cycle to time sexual intercourse with the aim of preventing conception.

Teenager refers to an individual of age group 13 to 19 years.

Traditional contraceptive methods are contraceptives which are prescribed or supplied by traditional healers or methods used traditionally in specific cultures without any prescription.

Unmet contraceptive need refers to the proportion of women who are sexually active but are not willing to get pregnant but are not using any modern contraceptives method

Abstract

Background: Sexual health of young people is a matter of public health concern and Reproductive health occupies a central position in health and development. Unwanted pregnancy and sexually transmitted infections among young women can be prevented through effective use of contraception. Unmet need for contraception in developing world and rates of unintended pregnancy among young women is high.

Aim of the Study: To assess the level of awareness of contraceptives and utilization of family planning services among young women and barriers that hinders effective use of such services

Methods: A quantitative descriptive survey was conducted among 360 female undergraduate students of the National University of Lesotho, Roma, Lesotho. A hand delivered self administered questionnaire was used to collect data with the help of four trained research assistants. Epi info version 3.5 was used for data entry and analysis.

Results: Awareness of family planning is high among the participant (98.3%); Condom is the most commonly known and used family planning method. Level of sexual experience and Contraceptive prevalence is high. Married status is associated with current use, positive perception on health benefit while Formal teaching on family planning is associated with misconceptions.

Conclusion: The level of awareness and Utilization of family planning services is high among female students of university of Lesotho. Access to services is good but there are misconceptions. There is the need to introduce family planning teaching that is based on accurate knowledge to school curriculum

CHAPTER 1

INTRODUCTION

1.1 Background

The reproductive health of young people is a matter of public concern and has not received its desired attention in many nations. Unintended pregnancy and sexually transmitted diseases including HIV infection continues to be a major reproductive health problem as a result of increasing levels of sexual activity and unsafe sex (MacPhail *et al* 2007, Tripp and Viner 2005).

About 80million unintended pregnancies are estimated to occur worldwide annually. In developing countries more than one-third of all pregnancies are considered unintended and about 19% will end up in abortion, which are most often unsafe accounting for 13% of all maternal death globally (Guttmacher institute 2007, Marston 2004).

Family planning can reduce the number of deaths among women by reducing the number of women who are at risk by averting unintended pregnancy, which account for about 30% of all birth in Sub-Saharan Africa (WHO 2010). Two-thirds of unintended pregnancy in developing countries occurs among women who are not using any method of contraception. Globally significant unmet need for contraception remains; this is estimated to be between 123-200 million (Ross and Winfery 2002, Guttmacher Institute 2007). The unmet need for contraception in developing world is estimated to be about a hundred million (Guttmacher Institute 2007). In Lesotho unmet need for contraception is estimated to be about 30 percent, but is higher among unmarried young women (LDHS 2004).

Unwanted pregnancy and sexually transmitted infections among young women can be prevented through effective use of contraception. In the United States, nearly half of all pregnancies are unplanned leading to about 3.1 million unintended pregnancy and 1.3 million abortions annually (Finer and Henshaw 2006, Raine *et al* 2005). The highest rates of unintended pregnancy occur among young women, as 60% of pregnancies among 20-

24 years old and 79% among 18-19 years old women are unintended (Finer and Henshaw 2006).

Two third of young women age 15-24 years in South Africa were found to be sexually active, half of whom had been pregnant at least once, and 65% of these pregnancies were unwanted (Macphail *et al* 2007).

In Lesotho 50 percent of births are unplanned and 75 percent of them are unwanted, 41 percent of all births to women under age 20 are unwanted (LDHS 2004). Teenage pregnancy is a very common problem, as 15 percent of women age 15-19 are pregnant with their first child. This increases from 2 percent at age 15 to 44 percent at age 19 (LDHS 2004), and 52 percent of maternal death in Lesotho occur among adolescents mainly due to abortion from unplanned and unwanted pregnancies (Road map 2007).

Young women at risk of pregnancy are also at risk of STI and HIV infection. The problem of unwanted pregnancies and sexually transmitted infections in young people can be avoided through effective use of contraception. Providing sexual health and contraceptive services in an age appropriate environment and manner will be of importance to young women (Trip and Viner 2005).

As young people enter the reproductive years the demand for family planning services will increase and programs need to be equipped to satisfy this demand, and to assist in overcoming barriers that young people are having to accessing reproductive health services. As family planning services can play a vital role in combating sexually transmitted infections and HIV or unplanned and unwanted pregnancy.

1.2 Introduction

Reproductive health occupies a central position in the identity of the health and development of a giving population. The concept of reproductive health has evolved from a historic concern with population and development. The approach aims to enable men

and women to make healthy, voluntary and safe sexual and reproductive choices. Globally the burden of sexual and reproductive health remains considerable. Estimate suggest that sexual and reproductive conditions account for 18.4% of the global burden of disease and 32.0% of the burden of disease among women age 15-44 years (WHO 2008). The sexual health of young people is a matter of intense public health concern. The adverse consequences of unsafe sexual behavior such as pregnancy and sexually transmitted infections, including HIV are common among young women (Trip and Viner 2005). And these reproductive health burdens are higher in developing countries.

Contraception and family planning are integral components of reproductive health and have positive effect on the health of women. Family planning promotion has potential benefits of reducing poverty and maternal and child mortality (Cleland *et al* 2006). Family planning protects women from unwanted pregnancy thereby saving them from high risk pregnancies or unsafe abortion. Other benefits from family planning methods include prevention from cancers, sexually transmitted infection and HIV. In spite of these benefits the unmet need for family planning services remains very high. This is estimated to be about 100 million in the developing world among married women (Guttmacher Institute 2007) and very high among young women (WHO 2008) because as young people enter their reproductive years, the demand for family planning services will increase.

Barriers still remain to effective use of family planning services especially among young women. In Lesotho, the prevalence of HIV and STIs are high, 50% of all live birth are unplanned and 44% of women age 19 years are either pregnant or they are mothers (LDHS 2004).

In view of this, a study that will assess the level of awareness, utilization of family planning services and barriers to effective use is important. There has been little or no research in the area of contraceptive use among young women in Lesotho.

1.3 Research Questions

The research questions for this study are

i. What is the level of awareness of contraceptive services among female students of the national university of Lesotho?
ii. What is the level of utilizing/experience of contraceptives and family planning services?
iii. What are the problems/barriers to contraceptive use and family planning services?

1.4 Aim of the Study

The aim of the study was to assess the level of awareness of contraceptives and utilization of family planning services among young women and barriers that hinders effective use of such services

1.5 Objectives of the Study

The research objectives for this study are:

i. To determine the level of awareness of contraceptives and family planning services among female students of the national university of Lesotho
ii. To determine their level of utilization of and types of contraceptives
iii. To determine the frequencies of utilization of family planning services
iv. To identify the problems and barriers to contraceptive use and family planning services
v. To determine the association between socio-demographic characteristics

1.6 Justification

Some works have been done on family planning services and its challenges in Lesotho but have been limited namely to the adult, married population. But none have focused specifically on young women.

The study will help to assess the magnitude of contraceptive and family planning services need for young women in Lesotho and their difficulty in accessing services. The outcome of the study will enable one to identify service need for young people with respect to family planning services.

The study will provide information on level of awareness; utilization and difficulty young people may be having in accessing reproductive health services. It will help to assess the quality of information young people are having on contraceptives which often shape their attitude toward its use.

The study will help to identify the need of young people regarding their sexual health. The result of the study could also assist the ministry of education in developing an appropriate reproductive health education curriculum for schools and the ministry of health on how to structure policies and strategies on health program for young people.

CHAPTER II
LITERATURE REVIEW

2.1 Introduction

Chapter two deal with the search for and review of literature relevant to the research topic awareness, knowledge, use of contraceptive and barrier to its use were discussed in the context of young people. The review of literature is discussed under four sections which are Overview of young women sexuality and contraception, Awareness and Knowledge of contraceptives, Utilization of contraceptives and Barriers to use of contraceptives by young Women.

2.2.1 Overview of young women sexuality and contraception

Reproductive Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, in all matters relating to the reproductive processes, functions and system at all stages of life. it implies that people are able to have responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this are the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

Family planning implies the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. Family Planning is achieved through contraception which is defined as any means capable of preventing pregnancy - and through the treatment of involuntary infertility. The contraceptive effect can be obtained through temporary or permanent means. Temporary methods include: periodic abstinence during the fertile period, coitus interruptus (withdrawal), using the naturally occurring periods of infertility (e.g. during breast-feeding and postpartum amenorrhea), through the use of reproductive hormones (e.g. oral

pills and long-acting injections and implants), placement of a device in the uterus (e.g. copper-bearing and hormone-releasing intrauterine devices), interposing a barrier that prevents the ascension of the sperm into the upper female genital trace (e.g. condoms, diaphragms, and spermicides). Permanent methods of contraception include male and female sterilization (Sadana 2002).

Reproductive health occupies a central position in the identity of the health as well as the development of a given population. However, the events of reproductive health are usually found in women who due to their biological function invariably bear the greater burden of the shortcomings of reproductive health such as unsafe motherhood or unsafe abortion (Adinma 2002).

The sexual health of young people is a matter of intense public concern. The adverse consequences of unsafe sexual behaviour such as pregnancy and sexually transmitted infections (STIs) including HIV infection affect adolescents as well as adults. Risk taking behaviours are common when adolescents start being sexually intimate and are often linked with other health risk behaviours. The median age for first sexual intercourse in the United Kingdom dropped during the early 1990s and is now stable at around 16 years for both men and women. The disparity between the sexes observed in the early 1990s has diminished. Before the age of 15, about 18% of boys and 15% of girls report having had full sexual intercourse, with similar proportions having engaged in oral sex. Having sex for the first time at an early age is often associated with unsafe sex, in part through lack of knowledge, lack of access to contraception, lack of skills and self efficacy to negotiate contraception, having sex while drunk or stoned, or inadequate self efficacy to resist pressure (Tripp and Viner 2005).

Studies from Africa showed that young people are becoming increasingly active sexually at early age. In Kenya 62% of never married male students age 11 to 17 years and 30% of females had already had sexual intercourse. The median age at first intercourse was 14 for males and 17 for females (Tenkorang and Maticka-Tyndale 2008). In South Africa a national survey of contraceptive use and pregnancy among women age 15-25 years old

showed that 67.9% reported ever having had sex. . At age 24 years over two third of young South African women are sexually active and 50 percent have been pregnant, yet only half have ever used contraceptives. The high level of sexual activity and unprotected sex are placing these young women at risk of HIV infection and pregnancy (Macphail *et al* 2007).

A multinational study conducted in four Sub-Saharan African nations shows Contrary to what might be generally thought, very young adolescents in these four Sub-Saharan African countries are not all sexually naïve. Almost one-third of 12–14 year old girls and boys in Uganda and boys in Malawi have either experienced some form of intimate sexual activity such as sexual intercourse, kissing, fondling or they have had a boyfriend or girlfriend. This proportion is much lower in Burkina Faso and Ghana, but even in these two countries about 1 in 10 very young adolescents have had some sort of intimate sexual activity, ranging between 7–12% (Bankole *et al* 2007).

Contraception has been identified as an effective means of combating the problems of unwanted pregnancy and unsafe abortion (Adewole *et al* 2002). It is an effective means of family planning and fertility control and therefore very important in promoting maternal and child health. The barrier methods are also useful in prevention and control of sexually transmitted infections (STIs) including HIV/AIDS. In the developing world unwanted pregnancy, unsafe induce abortion, high fertility rates, high maternal mortality rates, sexually transmitted infections and HIV/AIDS are very serious reproductive health problems that require urgent attention (Oye-Adeniran *et al* 2006).

Family planning promotion has the benefit of reducing poverty, maternal and child mortality and enhancing the health of mothers and children (Cleland *et al* 2006) Young women often have difficulty accessing and correctly using contraception. These young women faced barriers to effective contraceptive use (Kaufman 2003, Breheny and Stephen 2007, Frost *et al*) and Adolescent reproductive health has not received the continued attention it deserves since the start of the HIV epidemic. Many young women

are sexually active and unplanned and unwanted pregnancies are common among them (Macphail *et al* 2007, Kaufman 2003, Garenne *et al*, Breheny and Stephen 2007).

Comprehensive sex education is absent and contraceptive use remains low among adolescents and young women. Sexually transmitted diseases often occur while the age of sexual initiation is progressively reducing, mean age as early as 15 years has been found in some communities resulting in high pregnancy and abortion rates (Okpani and Okpani 2000). The unmet contraceptive need of women worldwide is estimated to be about 200million (Guttmacher institute 2004). Despite being sexually active the majority of adolescents and young women do not always use condom. Either because they don't know where to obtain them or how to negotiate for their use (Ohene and Akoto 2008) and this bring out the importance of addressing the unmet need of young adults by providing access to basic reproductive health information and youth friendly services that would enable them to take control of reproductive health decisions (Senbeto *et al* 2005).

Access to contraceptive services including emergency contraception will prevent consequences of unprotected sex such as unintended pregnancy and unsafe abortion. Pregnant young women do not commonly receive social support and are usually sent out of schools which often compromise their opportunity for education and future (Tamire and Enqueselassie 2007).

2.2.1 Contraceptive methods

The common modern contraceptive methods such as condom, oral contraceptives, implants, intra uterine device, dermal patch and vaginal rings will be discussed

2.2.1.1 Condom

The male condom is the most commonly used form of the barrier methods, which create a physical barrier to block sperm from reaching the ovum and, reduce the risk of sexually transmitted infections. Male condoms may be made of latex, polyurethane, or treated animal tissue (Scott and Glasier 2006). For today, male condoms are the only means

proven to significantly reduce the risk of HIV transmission in heterosexual intercourse (Cates 2005). A reduced risk of HIV transmission is associated only with consistent but not with occasional condom use. No HIV transmissions were reported among sero-discordant couples if the HIV -infected partner received HAART and a condom was used every time the couple had sex (Castilla *et al* 2005).

In addition to male condoms, female condoms, or vaginal pouch have been developed, is a relatively new method which gives women control of a barrier method and provides some STI protection. In a prospective study with one-third of the subjects being fully compliant with the method, the contraceptive efficacy of female condom was similar to that of other barrier methods (Farr 1994).

2.2.1.2 Oral contraceptives

The introduction of oral hormonal contraceptives in the early 1960s was the significant turning point of modern contraception and, since then the combined oral contraceptive pill has been used by approximately 200 million women, worldwide. Oral Contraceptives act mainly by inhibiting ovulation. Progestagen-only pills (mini-pills) act mainly by altering cervical mucus to reduce sperm penetration and the endometrium to reduce implantation (Scott and Glasier 2006).

2.2.1.3 Injectables contraception

An intramuscular injection of 150rng of medroxy-progesterone acetate (DMP A) was introduced in 1963 and protects against pregnancy for at least three months. Depot injections of progestagen have a strongly inhibitory effect on ovulation. Noresterat is giving every two months (Scott and Glasier 2006).

2.2.1.4 Implantable contraception

Sub-dermal contraceptive implants deliver a continuous low dose of progestagen from polymer capsules or rods. Norplant contraceptives contained levonorgestrel in six implantable rods to be removed after five years. Implanon contains two rods 4cm in

length with total dose of 150 mg levonorgestrel for three-to-five-year duration. A newer single implant system contains etonogestrel for three-year duration. A levonorgestrel implant prevents sperm transport through the female genital tract and etonogestrel causes anovulation (Scott and Glasier 2006).

2.2.1.5 Intra-uterine contraceptive devices

The intrauterine contraceptive devices (IUCD) are placed within the uterine cavity; they may contain material such as copper as in copper T or hormones as in the fourth generation hormone-releasing devices which were introduced in 1976. The hormone-releasing IUD solved the menorrhagia problem, which is associated with previous IUD's. Levonorgestrel acts on the endometrium to cause atrophy and it also alters the characteristics of the cervical mucus (Scott and GIasier 2006).

2.2.1.6 Patch and ring

New delivery systems for hormonal contraception are vaginal rings and transdermal patches (Scott and Glasier 2006). The patch delivers 20ug Ethinyl estradiol and 150ug of Norelgestromin daily. The dosing is one patch weekly for three consecutive weeks, followed by a patch-free week. A combined estrogen/progestin contraception vaginal ring was approved by the FDA for use in USA in 2001. The vaginal ring consists of a flexible ring made of ethylene vinyl acetate copolymer. It releases 15ug ethinyl-estradiol and 120ug etonogestrel daily. The ring is placed in the vagina and left there for three weeks, followed by a one-week ring-free period to allow for regular menstrual bleeding. The patch and ring are identical to the combined oral preparation in terms of WHO Medical Eligibility Criteria (WHO 2004).

2.2.1.7 Dual Protection

Dual protection is defined as any method of birth control combined with a condom. Dual protection prevents pregnancy and prevents the transmission of an STI, but it should be noted that some STls, such as human papillomavirus (HPV), can exist outside the vagina or at the base of the penis, and the protection afforded by a condom is not absolute.

Particularly important for younger people or those not in mutually monogamous relationships is the fact that dual protection can help maintain good sexual health throughout an individual's lifetime (McMahon 2004).

2.2.1.8 Emergency contraception

Emergency contraception is any method of pregnancy prevention, which is used after unprotected or inadequately protected intercourse, and before implantation. Emergency contraception is a safe and effective post-coital contraceptive method that can reduce the risk of an unintended pregnancy after unprotected sexual intercourse or contraceptive failure by at least 75% to 89% if taken within 72 hours of sexual intercourse. Recent research suggests that combined EC pills are moderately effective even if started between the third and fifth day (up to 120 hours) after unprotected sexual intercourse contraceptive failure, with effectiveness rates ranging from 72 % to 87% in one study (Rodrigues 2001, Ellertson 2003). The mechanisms are not exactly understood, it probably works through multiple mechanisms that may depend on the timing of their administration in the menstrual cycle.

The contraceptive effect is estimated mainly to be due to an, inhibition or delay of ovulation or preventing the implantation of a fertilized egg; however, it does not interfere with an established pregnancy because they are ineffective after implantation. Emergency Contraceptive is not as effective as consistent and correct use of most contraceptive methods Emergency contraceptive pills may contain only progestogen in form of Levonorgestrel (0.75mg) which is repeated after twelve hour or a combination of estrogen and progesterone (ethinyl estradiol 0.1 mg and levonorgestrel 0.5 mg) which are taken twice twelve hours apart within seventy two hour of exposures to unprotected sex (Grimes 2002).

2.2.1.8 Other contraceptive methods

Other methods of contraception are withdrawal, lactational amenorrhea, rhythm method and other natural family planning methods, diaphragms and cervical caps.

Male and female sterilisations are irreversible forms of contraception and are not commonly used by young people (Scott and Glasier 2006).

2.3 Awareness and Knowledge of contraceptives

Family planning education programmes should reach out to both men and women and provide accurate information on the risks of pregnancy, the benefits of birth spacing, and the safety and possible side effects of contraception, and encourage positive attitudes toward family planning (WHO 2008).

A variety of safe and effective contraceptives are available and efforts are made to increase availability and access to them. In spite of this unintended pregnancy remains a considerable social and public problem (Adewole *et al* 2002). Lack of adequate knowledge and awareness has been found to be associated with lack of contraceptive use among young women. Its use has been found to be associated with having previously been pregnant, meaning it is only after a pregnancy that young women are educated about and subsequently offered contraceptives services (MacPhail *et al* 2007) Some pregnant adolescents have attributed their pregnancy to lack of knowledge of contraceptives and how to access them (Garenne *et al* 2000).

Lack of awareness and poor knowledge of contraceptives methods has been found to be common among young women seeking for abortion. And that it is necessary to ensure dissemination of correct and appropriate information to young women about contraceptives. The main sources of information for young women about contraceptives are friends, radio and nurses (Oye-Adeniran *et al* 2006) where clients of family planning services have prior counselling about side effect of methods of chosen help to counter side effects.

The level of awareness of contraceptives has been found to be high in some community but good knowledge of different contraceptive methods is very low (Onwuzurike and Uzochukwu 2001). Therefore there is need for women to receive information about

contraception and promote women's right to control their reproductive health, generate awareness and dispel myths about contraceptives (Shoveller *et al* 2007).

A study among four nations in Sub Saharan Africa which are Burkina Faso, Ghana Malawi and Uganda showed that awareness of contraceptive methods is generally high among young adolescents With the exception of Burkinabé males and females and Malawian females, at least 8 in 10 young female and male adolescents had heard of at least one contraceptive method. In Burkina Faso, Malawi, and Uganda more males reported awareness of contraceptives than their female counterparts. Awareness about HIV is even higher: Again, with the exception of Burkina Faso where 75% of girls and 80% of boys were aware of HIV, this proportion is at least 90% in the other three countries. In Burkina Faso, young adolescent males tend to show greater awareness about HIV than their female counterparts, while there is little or no gender difference in the other countries. Compared to contraception and HIV, awareness about STIs other than HIV among very young adolescents is relatively low – lowest in Burkina Faso (less than 1 in 5), 1 in 4 in Ghana, almost 4 in 10 in Uganda and about 1 in 2 in Malawi. Only in Burkina Faso is there a significant difference between girls and boys in the proportions who report knowing about STIs other than HIV. Although awareness about contraception and HIV is high among young people, most of who have yet to become sexually active, it must be acknowledged that awareness is a rough measure of knowledge because it provides no indication of depth of knowledge. It is possible for the level of awareness to be high while actual knowledge may be superficial (Bankole *et al* 2004) Evidence from this study show that although awareness of HIV is very high among young adolescents in all four countries, in-depth knowledge about HIV transmission and prevention is very low. This is particularly true in Burkina Faso where only 5% of young adolescent females and 9% of their male counterparts demonstrated in-depth knowledge about HIV; that is, they correctly answered five questions that constitute an indicator of HIV prevention knowledge recommended by the World Health Organization for monitoring HIV/ AIDS prevention programs for young people (Bankole *et al* 2007). The proportions of females and males with detailed knowledge range from 17% among males in Uganda to 24%

among males in Malawi. In Burkina Faso and Malawi, boys have greater knowledge about how HIV can be transmitted and prevented than girls, and in Uganda it is girls who have somewhat better knowledge than boys. The composite measure of knowledge of pregnancy prevention shows that young adolescents have an even lower level of detailed knowledge about pregnancy prevention, than they do about HIV. The proportion of adolescents who have adequate knowledge about pregnancy prevention is lowest among boys and girls in Burkina Faso (2– 3%), followed by Ghana and Malawi (6–12% and 8–15%, respectively) and somewhat higher in Uganda (11–20%). Knowledge of pregnancy prevention is higher among girls than boys in three of the four countries (Ghana, Malawi and Uganda), and there is no significant gender difference in Burkina Faso. For a variety of reasons, the condom is a very important method for safeguarding young people's sexual and reproductive health. Among sexually active people, it is the only known method that provides simultaneous protection against HIV and unintended pregnancy, (Cates 2001, 2002) and for unmarried young people who often have sex sporadically, it is a very appropriate method because it is coital dependent, and because it is more accessible than methods that need a medical visit or a prescription. Because of the importance of condoms for this group, it is pertinent that young people have good knowledge about the method.

The sensitive issue of the need for information on HIV and pregnancy prevention among young adolescents in Sub-Saharan Africa has led to policy and political debates about what information to give adolescents and the age at which to start such interventions (Bhana 2006). Various stakeholders have argued that teaching adolescents about sex and reproductive health would encourage them to indulge in sexual activities. And yet, despite the sensitivity of the issue, there is increasing consensus and acknowledgement that it is important to institute effective sex education programs to equip young people with information as well as skills to help them make informed and responsible decisions on sexual and reproductive health matters. The low levels of in-depth knowledge of HIV/AIDS and pregnancy. Young adolescents get information about HIV, STIs and contraceptives from a wide range of sources and that they often do so from more than one

source. Mass media is the most commonly used source of information for these three topics combined for young male adolescents. Emerging evidence demonstrating the unique vulnerability of young people, especially females, to HIV infection and unplanned pregnancies has highlighted the need to develop effective intervention programs to protect the next generation of productive and reproductive adults in Sub-Saharan Africa. Equipping young adolescents with adequate and correct knowledge on how to protect themselves from STIs and pregnancy is warranted by the finding that 12–14 year olds are not as naïve on sexual matters as one may think. For instance, at least 3 in 10 of 12–14 year old girls in Uganda and boys in both Uganda and Malawi say they have experienced some form of intimate sexual activity (Bankole *et al* 2007).

As young people enter the reproductive years the demand for family planning will increase and program need to be equipped to satisfy this demand. A study among college students in America showed that nearly all respondents (94%) said that they had heard of Emergency contraceptives prior to receiving the survey. However, 12% indicated that they did not know the longest time window for effectiveness and 45% of respondents stated that Emergency contraceptives must be taken within 3 days or 72 hours after unprotected sexual intercourse or contraceptive failure. Only 5% responded that Emergency contraceptives must be taken within 5 days or 120 hours (Vahratian *et al* 2008). Respondents first learned of Emergency contraceptives from a variety of sources, including the media (43%), friends or peers (22%), and school-based curriculum (18%). studies on Emergency Contraceptives knowledge and utilization show that while the general public and university students have heard of it, they generally lack sufficient knowledge about what it is, how it works, and how to access it (Corbett *et al* 2006, Vahratian *et al* 2008).

Accurate knowledge of emergency contraception among young people on contraceptive method has been found to be low and that only few have accurate and detailed information regarding emergency contraception. Many who report familiarity with emergency contraceptive were found to be having misinformation and very few knew the

correct timing of use. Lack of detail and accurate information on contraceptive was found to have resulted in reluctance to adopt family planning method as some will want to know its side effect and contra indications (Muia *et al* 2002, Kaufman *et al* 2003, Tamire and Enqueselassie 2007) Among university students in Ethiopia it is only about 44 percent who have ever heard about emergency contraceptives, however below 10 percent of them have the correct knowledge of when to use it (Tamire and Enqueselassie 2007). Research on preventing pregnancy in adolescent population has tended to focus on the role that contraceptive knowledge plays in determining use of contraception; some has found no relationship between reproductive and contraceptive knowledge and contraceptive behaviour among young women generally. It was recognized that young women are not poorly educated about contraception or fertility but their education is not sufficient to ensure consistent effective contraceptive use (Boohene 1991).

Knowledge of young people on aspects of their sexuality has been found to be insufficient and lack of access to information and to services has been mentioned as a problem (Senbeto *et al* 2005).

2.4 Utilization of contraceptives

Contraceptive prevalence has increased dramatically in the last five decade. Concerning contraceptive choices, there are marked differences between countries. Age and stage of life is a major determinant of contraceptive choice (Scott and Glasier 2006).

Although contraceptive use has increased among young women in recent years, consistent reliance on effective form of contraception remains low. Reasons for inconsistent contraceptive use are not easily characterized, as they are as diverse as they are complex (Davies 2006). Even though continuous correct use of contraceptives during all periods of risk can greatly reduce the likelihood of unintended pregnancy, many women have difficulty adhering to such a regimen over a long period. A better understanding of why young women have difficulty using contraceptives continuously

even when they do not want to become pregnant will strengthen programs and policies that are designed to reduce unintended pregnancy. Women's attitude towards pregnancy prevention, service providers, experience with contraceptive methods, socioeconomic and sexual partners characteristics are some factors that affect use of contraceptives (Frost 2004).

The use of modern contraceptive methods among adolescents in some communities has been found to be low. Only 30.4% of sexually active adolescents were found in a study in Nigeria to be using any form of modern methods and only 6.2 percent use condom. Many relied on traditional methods such as periodic abstinence and coitus interruption (Okpani and Okpani 2000). In spite of significant risk of unwanted pregnancy and induced abortion the practice of contraceptives was found to be very low among young female undergraduates in Ethiopia (Tamire and Enqueselassie 2007).

Major factors which influenced the choice of contraceptives for users were convenience and effectiveness, so where users are offered a range of commodities that effective and convenient usage will likely increase. 88.5% were found to be satisfied with current contraceptive methods (Oye-Adeniran *et al* 2006).

Most women at family planning clinics have been found to have decided already which contraceptive methods they want and that failure to obtain that method is probably the biggest deterrent to adoption and sustained use (Cleland 2006).

Addition of a new method has been found to attract new users and raises overall frequency of use (Ross *et al* 2002). Rising adherence and continuation rate difficulty are not different from other forms of prolonged medication (Osterberg and Blaschke 2005). Despite being sexually active, majority of adolescents do not always use methods like condom or use them inconsistently (Ohene and Akoto 2008) Contraceptive behaviour was studied in a national household survey among Greek females, ages 16-45 years, in 2001. The sample of 797 was representative of the Greek female population. 6.9 % of

women participating in the survey reported not being sexually active and were excluded from the analysis. The most common current contraceptive method was the condom, at the rate of 33.9 %, followed by withdrawal at 28.8 %, OC at 4.8% and IUD at 3.6%. Among oral contraceptives users, 40 % of them used the pill for medical reasons. Participants were also asked to report all methods they have ever used. Of all respondents, condoms had been used by 9.3% withdrawal 66.4 %. Oral contraceptive 30.8%, periodic abstinence 21.9 %, and IUD 10.8% (Tountas *et al* 2004).

In America it was found among young women at risk of unintended pregnancy and sexually transmitted disease that 40% (n = 168) of women used barrier methods (98% condoms). 32% (n = 123) hormonal methods (oral contraceptive pills, injectable and implants), and 23% (n = 87) used no method. Only 7(28) of women were dual-method users of both hormonal and barrier methods at last intercourse. Women with a previous abortion were significantly more likely to use no method of contraception and less likely to use barrier methods compared to those without a history of abortion (35% vs 21 % and 29% vs 47%, respectively). Women raised with a religion were significantly less likely to use a hormonal method of contraception (27% vs, 39%), Women whose mothers had their first birth before age 20 were also significantly more likely to use no contraceptive method (42% vs. 19%). as were women who believed they were infertile. Half of women in the study had their first vaginal intercourse at age 15 years or younger; these women were less likely to use barrier methods compared to their counterparts who first had intercourse after age 15 (38% vs. 50%. respectively.) Women who believed they were unlikely to contract an STI in the next year were significantly less likely to use no method and more likely to use hormonal methods compared to those who believed they had some likelihood of contracting an STI (19% vs. 29% and 37% vs 26%, respectively,). Women who had multiple partners or believed their main partner had other partners in the last 6 months were significantly more likely to use barrier methods compared to their counterparts who only had one partner or believed their partners were monogamous (52% vs. 40% and 54% vs, 40%, respectively (Raine T *et al* 2003).

A study on contraceptives use at first intercourse among teenagers found that teenage girls aged 16 years or under who reported Oral contraceptive only use at first intercourse were more likely to become pregnant than those reporting condoms only. Also that nonuse of contraception at first sexual intercourse is associated with subsequent pregnancy. However, there was no difference in pregnancy risk according to whether condoms were used alone or with Oral Contraceptives. The ineffective use oral contraceptives was found to have reflected dislike of side effects, difficulties over concealment, or chaotic sexual lifestyle and that poor understanding of oral contraception may also have contributed to risk miscalculation Some girls may have been prescribed the pill for menstrual problems, and may not have acquired sufficient knowledge to use it correctly as a contraceptive. The study suggests that for young teenagers in their first sexual relationship, condoms may be easier than oral contraception to use effectively (Parkes *et al* 2009).

Weak community based family planning programme do not often ensure accessibility to family planning services, and a gap between knowledge of contraceptive methods, being able to get access to them and actual effective use has been identified (Senbeto *et al* 2005).

Partners' communication influences contraceptive decisions. Young women who communicate less frequently with their sex partners about prevention issues are less likely to use contraceptive consistently. Culture that discourages openness and honest discussion about contraceptive use has been found to limit access to accurate, protective information and therefore increase risk taking by young women (Davies *et al*). There is need to involve male partners and work on developing communication skill of a young adult in sexual relationship as a solution to limited contraceptive use (MacPhail 2007) Ambivalence feeling towards pregnancy interferes with effective contraception and that young women require motivation (Bohohene *et al* 1991).

2.5 Barriers to use of contraceptives by young women

Young women constantly face barriers to effective contraceptive use. Many had used a range of strategies to overcome barriers to effective contraception without success and some pregnant adolescents have attributed their pregnancy to difficulty in obtaining contraceptives (Garenne *et al* 2000). In spite of growing efforts and successes in increasing availability and access to these contraceptives, unintended pregnancy remains a considerable social and public health concern. Globally significant unmet need for contraception remains and difficulty of use, concerns about side effects or long-term health effects, and barriers to access may deter use of contraceptives. Young women often have difficulty accessing and correctly using contraception. Some identified barriers to effective contraceptives are lack of concern over the possibility of pregnancy, perceived invulnerability to pregnancy, forgetfulness (Kaufman *et al* 2003), institutional policy on contraceptives, socio-cultural norms, poor access regarding location (Shoveller *et al* 2007) and low socioeconomic status (Frost *et al* 2004). Partner resistance, fear of partner's rejection, discomfort buying or carrying contraceptive are barriers that are likely to persist over time despite continuous exposure and experience, unless specific skills are acquired. Fear of losing a sexual partner for insisting on use of condom has been shown to be a barrier to condom negotiation among female adolescents, especially when communication and assertive skills are inadequate (Davies *et al* 2006).

In new Zealand it was found that few pregnant adolescents attributed their pregnancies to lack of knowledge of contraceptives or difficulty obtaining them, but rather they found that pregnancies were commonly related to positive or ambivalent feelings about pregnancy and concluded that these positive or ambivalent feelings toward pregnancy interfere with effective contraception and that adolescents require motivation to avoid pregnancy rather than increased knowledge or access to contraception. Lack of concern over the possibility of pregnancy has been found to be a common barrier to effective contraceptive use. Many young mothers have failed to access contraceptive because they did not care about the possibility of becoming pregnant. Indifference also influence their

use of contraceptive even when it is available, removing their motivation to use it effectively. Perceived low risk to pregnancy has also acted as a barrier to access and use of contraceptives. And this is a common theme among young women who had been using contraceptive irregularly and those who had not used contraceptives at all (Breheny and Stephen 2007).

Barriers to accessing contraceptives has been overcome in some places, using adult support, concrete sex education that is personalized to young women's experience and target contraceptive messages to young women will encourage a broad based understanding of preventing unplanned pregnancy as the responsibility of the community(Kaufman *et al* 2003). The Perceived low risk of pregnancy, lack of awareness of the risk of pregnancy (as they believed that one must have several sexual intercourse before conception can occur), and several other factors on the part of young women act as barrier to accessing contraceptives and family planning services. Fear of side effect, poor knowledge of available methods and individual religion are major barriers to contraceptive use. The Catholic Church disapproves the use of modern contraceptives and it has been the major reason for non contraceptive use among the predominantly catholic South Eastern region of Nigeria (Oye-Adeniran *et al* 2006).

Lack of knowledge of where to get condom, not discussing family planning with partner have been found to be a barrier to family planning and risk for sexually transmitted infection among young women (Ohene and Akoto 2008). Inaccessibility to contraceptives was found to be the major cause of unwanted pregnancy and subsequent unsafe abortion in Ethiopia (Senbeto *et al* 2005).

In many countries access to family planning methods was initially restricted to health facilities, under strict control of medical practitioner, eligibility criteria and constraints such as written consent of husband, proof of marital status, age or parity, excessive revisit schedule and insistence that only menstruating women be allowed to start contraception (Campbell *et al* 2006). The success of family planning programmes has been linked to

dismantling of administrative and medical barriers that impede quick, convenient and appropriate access to methods (Cleland *et al* 2006) Static health facilities continue to be the dominant source of family planning and geographical access is considered a possible major constraint on uptake of services.

In most societies women are found to be prepared to travel long distance for advice and contraceptives, especially for methods which require infrequent or no further visits. Poor quality of service is a major important constraint to effective access to family planning programme. Some aspects of these are continuity of supplies, presence and competence of staff, treating patient with dignity and reasonably privacy (Cleland *et al* 2006). However in Sri Lanka the main barrier for the adolescents was the unavailability of reproductive health services, inadequate knowledge about reproductive health services, inadequate privacy and confidentiality, negative attitudes of parents and society and public health facilities that are insensitive to the need of young people are the main barriers young people face in accessing effective contraception (Agampodi *et al* 2008).

Implementation of adolescent friendly services has improved access and use of services among adolescent leading to reduced morbidity from sexually transmitted infections and unwanted pregnancies (Mbonye 2003).

2.6 Summary

Contraception has been identified as an effective means of combating the problems of unwanted pregnancy and unsafe abortion. And the barrier methods are also useful in prevention and control of sexually transmitted infections (STIs) including HIV/AIDS. Although Contraceptive use has increased among young women in recent years, consistent reliance on effective form of contraception remains low. Reasons for inconsistent contraceptive use are not easily characterized, because they are diverse and complex.

A better understanding of why young women have difficulty using contraceptives continuously even when they do not want to become pregnant will strengthen programs and policies that are designed to reduce unintended pregnancy. Knowledge of young people on aspects of their sexuality has been found to be insufficient and lack of access to information and to services has been mentioned as a problem.

Some identified barriers to effective contraceptives are lack of concern over the possibility of pregnancy, perceived invulnerability to pregnancy, forgetfulness, institutional policy on contraceptives, socio-cultural norms, poor access regarding location and low socioeconomic status or partner resistance, fear of partner's rejection, discomfort buying or carrying contraceptive

Young people must be adequately informed and knowledgeable about their sexuality and on how to access and utilize comprehensively reproductive health services. The conventional education system and other social learning opportunities may have to be mobilized and utilized as parts of efforts to equip our young men and women for a fruitful reproductive life.

Current education curriculum and youth programmes need to be reviewed to allow for incorporation of reproductive and sexuality teaching and training to deliver correct and accurate information.

CHAPTER 3
RESEARCH METHOD

3.1 Introduction

This chapter described the research methodology, delimitation of the study, geographical area, research design, target population, sampling method, data collection and analysis, validity and reliability of the study and ethical considerations. A quantitative descriptive research design was used to investigate the level of awareness, utilization and barriers to effective contraceptive use among young women.

3.2 Research design

The research design was a quantitative descriptive survey. Self administered structured questionnaire that were delivered by hand was used to collect data from participant. All respondents answered the same questions which were constructed in English language which is the language of communication in the setting where the research was done. Questions were framed in a way that is easy to understand using simple English expressions. Difficult technical terms were avoided in the preparation of the questionnaire.

3.3 Research setting

The research setting was the national university of Lesotho in Roma. It is the only university in Lesotho and is located about forty kilometers from Maseru, the national capital, in Maseru district. The university has both undergraduate and post graduate faculties and admits both male and female students. The study was carried out among female undergraduate students of the university. The undergraduate population of the university in the year 2009/2010 academic year is about 10,400 and female students' population of about 7000 account for about severity percent of the undergraduate population. There are seven undergraduate faculties in the university which are faculties of agriculture, sciences, engineering, social sciences, health sciences, humanities and education. The study was carried out among the students of the faculties of social

sciences, humanities, education and health sciences. Data were collected during the day at the university campus accommodations and selected concentrated off campus accommodations.

3.4 Population and sample,

The study populations were the female undergraduate students of the national university of Lesotho. The sampling frame was the list of all registered female students of the university. The samples were students of the faculties of education, health sciences, humanities and social sciences which were the four randomly selected faculties.

3.5 Sample size and sampling procedure

3.5.1 Sample size calculation

Epi info statistical soft ware was used to calculate the sample size. Population survey was selected, based on a population of not more than 999999, a national contraceptive prevalence of 37% and a study power of 90% (worst acceptable results of 32%) at 95% confidence interval, the calculated sample size was 358. Adjusting for drop out and non response at 10%. A final sample size of 398 was calculated.

Sample Size: 358

Adjusting for drop out at 10%

$$Nadj = \frac{N}{1-f}$$

f = proportion expected to drop off = 10%

Adjusted final sample size = 398, Approximately 400

3.5.2 Sampling procedure

A simple and systematic random sampling was used to select participants for the study. The names of the seven undergraduate faculties were typed and printed out separately. Each print out was put into a non transparent envelop of the same size and sealed up. All were kept in a bigger brown envelop. On the morning that the administration of the questionnaire started the large envelop was opened and the content were poured into a

rectangular box. Each of the four trained research assistants was asked to pick an envelope each. After they have each picked an envelope, each of the envelopes was opened and the name of the selected faculty read out. The four faculties that were selected were education, health sciences, humanities and social sciences.

Inclusion criteria - Female undergraduate students of the four randomly selected faculties who are 18 years and above

Exclusion criteria – students of non selected faculties, post graduate students of selected faculties or those whose age are less than 21 years.

The questionnaires were administered at the student halls of residence. The entire 8 female hostels were used. A sampling interval of three was used. We started from room number one in the first hostel, then rooms' number 4, 7, 10, 13 and so on.

For the second, third and fourth hostel we started at the second, third and fourth room respectively and the subsequent forth rooms were visited, for the fifth, sixth, seventh and eight hostels. We started again from room one, two, three or four and same procedure followed.

When we knocked on a door we asked for permission to come in and introduced our self to the occupants which ranged from one to three. We asked if there is anyone from any of the four selected faculties in the room. If there is a student from any of the four faculties we introduced the study to her/them and seek for their permission for them to participate. If they agreed, we give a copy of the questionnaire to them, as the individual to read through the introduction and if they willing to participate should sign the consent form and write their initial. We write down their room number and ask for when we can come back to receive the questionnaire, we follow up at the given time to collect the filled questionnaire.

About one quarter of the participants resides off campus. We located sites where off campus students are concentrated and followed similar procedure the questionnaires were administered to them. If there is no student from any of the four faculties in the expected room we move to the room we would have visited normally if we have met someone in the present room

3.6 Data collection instrument and Instrumentation

3.6.1 Components and details of instruments

A structured self administered questionnaire was used to collect primary data from participants. The questionnaire contains mainly closed ended questions with spaces for explanation where it is required. It consists of five sections.

Section A included the socio-demographic characteristics consisting of six items.

Section B was on awareness and knowledge of contraceptives and family planning consisting of ten items.

Section C explore the attitudes of participants towards contraceptives and family planning, it consist of three items.

Section D was on experience with the use of family planning methods and services, and consists of nine items while the last section was on barriers to contraceptive use and consists of sixteen items. (See appendix 3).

The questions and structuring of the questionnaire was informed by findings from review if literature. The questionnaire did not carry any marker to identify the subjects.

3.6.2 Validity and reliability

The design of the instrument was guided by findings from the literature. The content validity of the questionnaire was ensured by using standardized reproductive health tools as a guide while preparing the questionnaire and through consultation with my supervisor. The tool was reviewed by my supervisor and another lecturer of the National school of public health; it was later given to a reproductive health consultant who is an

expert in the field of family planning services and research. The instrument was prepared using simple words that are easy to understand, difficult technical terms were avoided as much as it is possible.

The questionnaire was pre-tested and refined according to feed back from those who participated in the pre-testing. Conducting the pre-testing of the questionnaires thus helped in making the necessary corrections and solving the emerging problems to improve the data collection process, this ensured the reliability of the instrument because the participants were given the opportunity to comment on the clarity of the questions and they were requested to make suggestions.

Careful phrasing of each question to avoid ambiguity ensures reliability of the tool. An introductory letter was attached to the questionnaire when respondent were informed of the purpose of the research and the need to respond truthfully. The questionnaire was designed in English language which is the medium of instruction and communication in the institution and understood by all. It was prepared using easy to understand words and avoiding technical expressions or words as much as it is possible.

3.7 Pre-test

A pre-test of the questionnaire was done among 20 graduating students of the university. It was to validate the appropriateness of the tool, whether it is too long or not, difficult or easy to understand, check for clarity of the questionnaire items and to eliminate ambiguity, difficult wordings or unacceptable questions. The participants in the pre test were given the opportunity to seek clarity where necessary and to give their suggestions. The graduating students were used because they have similar characteristics with the students however they would have graduated at the time the research will be conducted so they will not be included in the actual study. Following the pre-testing some uncomfortable questions which will not have any adverse effect on the overall outcome

of the study were removed or modified. At the end of the pre-testing the average time to complete the questionnaire was about 15-20 minutes.

Inclusion criteria's for participation in the study were a female undergraduate of the national university of Lesotho, belonging to one of the four randomly selected faculties and must be 18years or above. Participation was voluntary and consent form signed.

3.8 Data collection method/ procedure

The data for this study were collected between 2nd and 25th of November 2009. Four newly graduated students of faculty of health sciences from the department of Nursing and midwifery were trained as research assistants by the researcher prior to commencement of data collection. We administered questionnaires daily from Monday to Friday between 4 and 7 pm in the evening. I work with one of them at a time on daily basis and we retrieve an average of 20 to 25 questionnaires daily.

The questionnaires were administered at the student halls of residence by me and the research assistants through a hand delivery. The entire 8 female hostels were used. A sampling interval of three was used. We started from room number one in the first hostel then room number 4, 7, 10, 13 and so on.

For the second, third and fourth hostel we started at the second, third and fourth room respectively and the subsequent forth rooms were visited, for the fifth, sixth, seventh and eight hostels. We started again from room one, two, three or four and same procedure followed. If there is no student from any of the four faculties in the expected room we move to the room we would have visited normally if we have met someone in the present room.

When we get to the selected room number we knocked at the door and wait for a response, we introduced our self, asked if there is any students from the four randomly

selected faculties. If there is any we introduced the research to her or them and solicit for their participation. If they are willing to participate we obtained a verbal consent and give a copy of the questionnaire for them to read through the introduction letter and asked the individual to sign the written consent form as a sign of voluntary participation.
When they are willing to fill the form immediately we excused them so that it can be filled in privacy and use that time to attend to other participants then we came back after about twenty to thirty minutes to collect it. When we are asked to come back for its collection we write down the room number under the name of the hall and the possible time we can get it making them to understand that we will be available mainly in the evening since majority of the students will be busy during the working hours. A data collection confirmation sheet was signed by the Registrar of the university at the end of data collection.

3.9 Data Analysis

Four hundred questionnaires were printed and distributed, 363 were returned giving a response rate of 90.75%. The returned questionnaires were checked for completeness and 3 were found to contain missing pages raging from 1 to 2 pages, 360 questions were available for analysis. The questionnaires with missing pages were excluded from analysis.

A view team and a view field name were created for each question. Prior to data entry a data code sheet was developed where the various data were categorized according to expected responses. All respondent were female so the sex was female by default. Age was computed as a numerical variable which can only accept two digits with 18 years as the least acceptable value. Where response options are only yes or no. a yes–no field option was used and data entry was done as 1 for yes and 2 for no which is a default data entering code for Epi info. For questions with three or more possible response where the responses are mutually exclusive, an option field was used in the view. The options are coded as 1,2,3,4 etc depending on the number of options and are related to drop down

menu which was created on the view field. The first option on the response list corresponds to one, the second to 2, third to 3 and so on.

For questions with multiple options where respondent are expected to pick more than one option were applicable a check field option was used for options which are open ended questions where explanation is required. The responses are typed directly on the multiline field and are analyzed separately at the end of data entry. Theme was given to them, they were categorized and interpreted.

At the time of data entry each questionnaire was given an identification number which correspond to the ID number that is generated automatically by the data entry menu of Epi info. The first question to be entered has an identification number of 1, the second 2, third 3 and so on. The identification number was used to verify the accuracy of data entry through a random check of ten percent of the entered data. At the end of data entry, quality check of data entry was done by randomly selecting 40 questionnaires and rechecked for correctness against the corresponding number on the data entry page of the make view

The generated data was analyzed with the same Epi info version 3.5 that was used for data entry. Frequency tables were generated for all variables. These were used for descriptive statistics which were based on frequencies and percentages. Tables were prepared and graphs constructed using excels Microsoft office. Comparative analyses of data were done using Chi square test for the following variables which were converted to binary outcomes. These variables are age, marital status, number of siblings, religion against use of modern family planning, current family planning use, perception on overall benefits of family planning and perceived negative outcomes of modern contraceptives. Ages, marital status, numbers of siblings, religion against use of modern family planning were analyzed against current family planning use by a 2 by 2 table. Same were done for marital status and the perceived overall benefit of family planning and religion as a

barrier to family planning use against perceived negative outcome of family planning. Level of significance was set at 5% and the confidence interval set at 95%.

3.10 Limitation of the study

Student's accommodation was used in the method of selection of participants. Though off campus students participated in the study, areas in the town where there is a high density of students living off campus were used. This would have systematically excluded students who live off campus but were not living in such areas of selected high student density. Mainly closed ended questionnaire were used for this study which may limit the response options of participants.

3.11 Ethical considerations

The basic concepts of ethics were duly observed in the conduct of this study on the part of the researcher and the principles of autonomy, beneficence and non malefecience were observed.

Ethical clearance and approval to conduct this research was obtained from the Research, Ethics and Publication Committee of the National School of Public Health, University of Limpopo, and the Medunsa Research Ethics Committee, MREC/PH/32/2009: PG (Appendix 6).

A written letter of permission to carry out the study was submitted to the office of the registrar of the National University of Lesotho (Appendix 2) along with a copy of the ethical clearance certificate, the proposal and the data collection tool. The application was approved by the research and ethical committee of the institution. All deans of faculties and the student representative councils were all informed with the assistance of the office of the registrar (Appendix 4).

The conduct of the study was according to the protocol that was documented in the proposal that was submitted to the Medunsa Research and ethics committee of the University of Limpopo, Medunsa campus.

Autonomy of participants

The concept of individual autonomy was upheld in this study. All participants were approached with respect and honour. Their participation in the study were solicited, after a verbal consent to participate, a copy of the questionnaire is given to them and they were asked to read the introductory letter carefully and sign the written consent as an evidence of voluntary participation after they have understood the purpose of the research. No individual was coerced, induced or deceived to participate in the study. The right of individual not to participate or to withdraw from participation was documented on the introductory letter.

Confidentiality and Anonymity

Participant in the study were assured of the protection of their identity. Only initial and signature of participant appeared on the consent form. During data entry the consent form was separated from the questionnaire and the questionnaire is given an ID which is determined by the order in which the questionnaires are entered into the Epi info data base. The anonymity of all participants is protected because it is not possible to link the identity of any participant with the data in anyway.

Privacy and dignity

All participants have the right not to answer any part of the questionnaire if they consider it will have an adverse effect on them. Privacy and dignity were ensured in this study, we visited all participants in their hall of residence and discussed with them personally and they answered the questionnaires in privacy.

Avoiding harm, right to withdraw and informed consent

Efforts were made to ensure that participants did not suffer any harm. They were treated with honour and respect, the questionnaires were carefully phrased to avoid embarrassment or subjecting any participant to any form of psychological trauma and very sensitive questions were avoided. A copy of the questionnaire is given to them and they were asked to read the introductory letter carefully and sign the written consent as an evidence of voluntary participation after they have understood the purpose of the research (Appendix 2).

The right of individual to withdraw from the study even after accepting to participate and consenting was made known to them through documentation on the introduction letter. All participants were asked to sign the enclosed consent form as an evidence of voluntary participation after they had understood the study.

3.12 Disclosure of results

The results are disseminated in the format of a research report. This report did not disclose to the readers any secretes or weakness of the participant or institution where the study was conducted. A copy of the report will be made available to the institution where this study is conducted.

3.13 Conclusion

This chapter discussed the research design and method used in the study. A quantitative, descriptive exploratory survey design was used for the study to generate primary data through self administered structured questionnaire that were delivered by hand. The result of the study is presented in chapter four.

CHAPTER 4
RESULTS

These results are presented in two parts. The first part gives the overall findings of the study (descriptive statistics) while the second part attempts to make correlations between some variables (inferential statistics).

4.1 Part one (Descriptive Statistics)

4.1.1 Socio demographic characteristics of the participants

The socio-demographic characteristic of this study is presented in table one below. A total of 360 female students participated with a mean age of 22.55 years. Median and modal age are 22years. More than three quarter (78.00%) of the women are single, almost all the participants are Christians (96.40%) and of the black African race (98.90%) and two third are from the faculty of Education and social sciences.

Over two third of the participants have four or less siblings, 35% had one to two siblings while 35.83% were having one or two siblings. The study shows that the predominant religion in Lesotho is Christianity as 96.40% of participants were Christians (n=346). Table 2 shows the summary statistics for participant's age with a range of 18-40 years.

4.1.2 Awareness of contraceptives and family planning.

According to table 3 the level of awareness of contraceptives and family planning among female students who participated in this study is very high. 98.30% of participants are aware of contraceptives and family planning. Majority of respondents knew about family planning while they were in the secondary school level of education (71.20%), 15.70% were aware of it as early as in primary while very few knew about it only in their tertiary level of education. The most common first source of information about contraceptives and family planning is the classroom discussion and teaching (31.13%, n=208), while the

internet is the least first source of information (2.40%) among the participants in the study. Other sources are health workers/hospital, mass media, friends and relatives.

Table 1: The Frequency and percentage of the socio-demographic characteristics of female students at the National University of Lesotho

Variables		n	%
Age (years) Mean 22.5 Minimum 18 Maximum 40	<20	55	15.00
	20-25	245	69.00
	26-30	45	12.70
	31-35	6	1.80
	>35	2	
Faculty	Education	110	30.90
	Health Sciences	55	15.40
	Humanities	54	15.20
	Social Sciences	141	38.50
Marital Status	Single	283	78.80
	Married	70	19.50
	Separated/Divorce	4	1.10
	Widow	2	0.60
Religion	Christianity	346	96.40
	Islam	2	0.60
	Traditional	5	1.40
	Others	6	1.70
Ethnic group	Black African	352	98.90
	White African	3	0.80
	Others	1	0.30
Siblings	One to two	126	35.00
	Three to four	129	35.83
	Five to six	54	15.00
	seven and above	20	5.56
	None or unstated	31	8.61

About a half (56.10%) have had a classroom teaching on family planning at one or more level of their education. Secondary school is the most common level of classroom teaching (74.00%) followed by tertiary level of education (16.20%) and least in the primary school (9.80%). Majority of respondents (93.30%) agree that contraceptives and

family planning should be taught in the classroom as part of normal education curriculum.

Table 2: Summary Statistics for age of Participants

Descriptive	Value
Mean age	22.55
Median age	22
Modal age	22
Standard deviation	3.4313
Minimum age	18
maximum age	40

Table 3: Awareness of contraceptives and family planning among female students of the National University of Lesotho

Variables			N	%
Awareness about contraceptives		Yes	351	98.30
		No	6	1.70
Family Planning use for birth control		Yes	349	97.50
		No	9	2.50
Level of school you know about Family Planning	Primary		55	15.70
	Secondary		250	71.20
	Tertiary		46	13.10
Sources of information	Hospital/Health workers		103	15.42
	Mass media		172	25.75
	Internet		16	2.40
	Friends/Relatives		169	25.30
	Class room		208	31.13
Formal Class Teaching		Yes	201	56.10
		No	157	43.90
Level of formal teaching	Primary		21	9.80
	Secondary		151	74.00
	Tertiary		33	16.20
Schools to teach Family Planning		Yes	334	93.30
		No	24	6.70
Level School should teach FP	Primary		155	46.00
	Secondary		161	47.80
	Tertiary		21	6.20

Table 4: Knowledge of contraceptive Methods among female students of the National University of Lesotho

Variable		N	%
Oral pills	Yes	285	79.20
	No	75	20.80
Injectables	Yes	272	75.60
	No	88	24.40
Intra uterine Device	Yes	135	37.50
	No	225	62.50
Implants	Yes	94	26.10
	No	266	73.90
Condom	Yes	342	95.00
	No	18	5.00
Spermicidal	Yes	116	32.20
	No	244	67.80
Emergency Pills	Yes	221	61.40
	No	139	38.40
Dermal patch	Yes	35	9.70
	No	325	90.30
Vaginal ring	Yes	88	24.40
	No	272	75.60
Lactational Amenorrhea	Yes	39	10.80
	No	321	89.20
Female sterilization	Yes	147	48.80
	No	213	59.20
Male sterilization	Yes	141	39.20
	No	219	60.80
Natural family planning	Yes	164	45.60
	No	196	54.40
Don't know any	Yes	3	0.80

About equal proportion of respondents want family planning to be taught at the primary (n=155, 46.0%) or secondary school (n=161, 47.0%) at secondary school level. Only 6.20% of them indicated that such teaching should be at the tertiary level of education.

Table 5: Knowledge of Contraceptives that prevent sexually transmitted infections and HIV among female students of the National University of Lesotho

Variable		N	%
Oral pills	Yes	7	1.9
	No	353	98.9
Injectables	Yes	4	1.1
	No	3536	98.9
Intra uterine Device	Yes	4	1.1
	No	356	98.9
Implants	Yes	1	0.3
	No	359	99.7
Condom	Yes	348	96.7
	No	12	3.3
Spermicidal	Yes	2	0.6
	No	358	99.4
Emergency Pills	Yes	2	0.6
	No	358	99.4
Dermal patch	Yes	0	0
	No	360	100
Vaginal ring	Yes	12	3.3
	No	348	96.7
Lactational Amenorrhea	Yes	0	0
	No	360	100
Female sterilization	Yes	5	1.4
	No	355	1.4
Male sterilization	Yes	5	1.4
	No	355	98.6
Natural family planning	Yes	17	4.7
	No	343	95.3

Almost all the participants except three (0.80%) has a knowledge of at least one form of modern contraceptive methods (see table 4). The most commonly known methods are condom (95.0%), oral pills (79.20%), injectables (75.60%) and emergency contraceptive pills (61.40%), while the least known methods are dermal patch (9.70%) and lactational amenorrhea (10.80%).

Table 5 shows that most of the participants know condom as the contraceptive method that prevent sexually transmitted diseases and HIV (n=348, 96.7%). See figure 1 bellow.

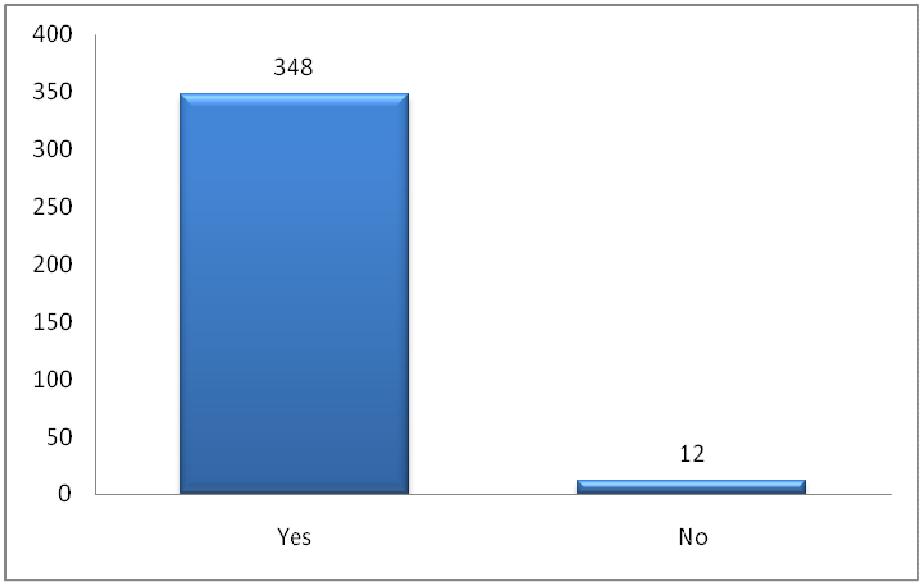

Figure 1: Bar chart showing Condom as a Contraceptive Method that Prevent Sexually Transmitted infections and HIV

Table 6: Benefits and negative outcomes of using Family Planning Methods among female students of the National University of Lesotho

Benefits/outcomes	N	%
Birth Control	309	85.8
Prevention of unplanned/unwanted pregnancy	337	93.6
Prevents STIs/HIV	200	55.6
Enhance sexual performance	31	8.6
No significant benefit	2	0.6
Negative effects of Family Planning		
Causes cancer	85	23.6
Marital unfaithfulness	181	50.3
Increases promiscuity	73	20.3
Decreases sexual pleasure	63	17.5
Unreliable	146	40.6
No Negative effect	41	11.4

(Percentage of all respondents)

From table 6 on the benefit and perceived negative outcome of use of family planning majority of respondent know the following as benefits of family planning, control of birth and child spacing (85.80%), Prevention of unplanned or unwanted pregnancy (93.6%) and prevention of sexually transmitted infections including HIV (55.6%0). On the perceived negative effect of family planning use, half of respondents think it can enhance marital unfaithfulness among married women.

Table 7: Perception associated with the overall benefit of the use of contraceptives using a five level likert scale among female students of the National University of Lesotho

Perception	Strongly agree	Partially agree	Don't agree	Partially disagree	Strongly disagree
Having a happy family	136(39.7%)	121(35.3%)	57(16.6%)	12(3.5%)	17(5.0%)
Couples care for one another	190(54.8%)	109(31.4)	28(8.1%)	4(1.2%)	16(4.6%)
Loving with peace	135(39.4%)	111(32.4%)	57(16.6%)	24(7.0%)	16(4.7%)
Brings closer relationship	90(25.9%)	104(30.0%)	83(23.9%)	29(8.4%)	41(11.8%)
Husband love wife	154(44.1%)	93(26.6%)	43(12.3%)	20(5.7%)	39(11.2%)
Beauty last with few children	113(32.5%)	66(19.0%)	80(23.0%)	23(6.6%)	66(19.0%)
improves one standard of living	211(60.5%)	88(25.2%)	28(8.0%)	11(3.2%)	11(3.3%)
Help mother's regain strength	188(54.5%)	70(20.3%)	40(11.6%)	15(4.3%)	32(9.3%)
Protect Children's health	161(46.5%)	89(25.7%)	41(11.8%)	17(4.9%)	38(11.0)
Protects Mother's health	223(64.1%)	67(19.3%)	18(5.2%)	14(4.0%)	26(7.5%)

About a quarter think it can cause cancer (23.6%), increase promiscuity among single women (20.30%). Other negative effects are decrease sexual pleasure (17.5%) or that they are unreliable (40.6%). Half (50.9%)of respondents from faculty of health sciences think that family planning causes cancer, compare to Education (21.8%), Humanities (3.7%) and Social Sciences (22.6%)

Table 8: Experience of participants with Contraceptives among female students of the National University of Lesotho

Variables	N	%
Currently Using contraceptives	199	60.5
Methods currently use		
Oral pills	17	6.90
Injectables	21	9.59
Intra uterine Device	2	0.99
Implants	1	0.50
Condom	170	71.07
Natural family planning	14	6.45
Emergency Pills	16	7.27
Lactational Amenorrhea	1	0.50
Female sterilization	0	0
Male sterilization	1	0.30
Dermal patch	0	0
Vaginal ring	0	0
Other methods	3	0.90
prevent pregnancy	158	49.2
prevent STIs/HIV	140	45.9
Enhances sexual performance	4	1.3
Treat Gynaecological conditions	3	0.98
Reasons for non current use		
Afraid of side effect	20	22.4
Desire pregnancy	19	21.6
Feel can't get pregnant	7	7.3
Not active sexually	76	57.6
Prevent pregnancy by other means	10	7.6
Discontinued because of side effect		
Yes	42	13.5
No/not applicable	268	86.5

4.1.3 Experience of participants with contraceptives and family planning.

Table 8 shows the experience of participants with contraceptive use. Majority of respondents (60.5%) are currently using a form of contraceptive method. Condom is the most commonly used method which is used by 47.2% of all respondent and 78.02% current contraceptive users. The reasons for use among current family planning users are; to prevent pregnancy (43.0%), all respondents and 71.07% current users prevent sexually transmitted infections. Three of the respondents are on a family planning method to treat gynaecological conditions. Some are currently using more than a method.

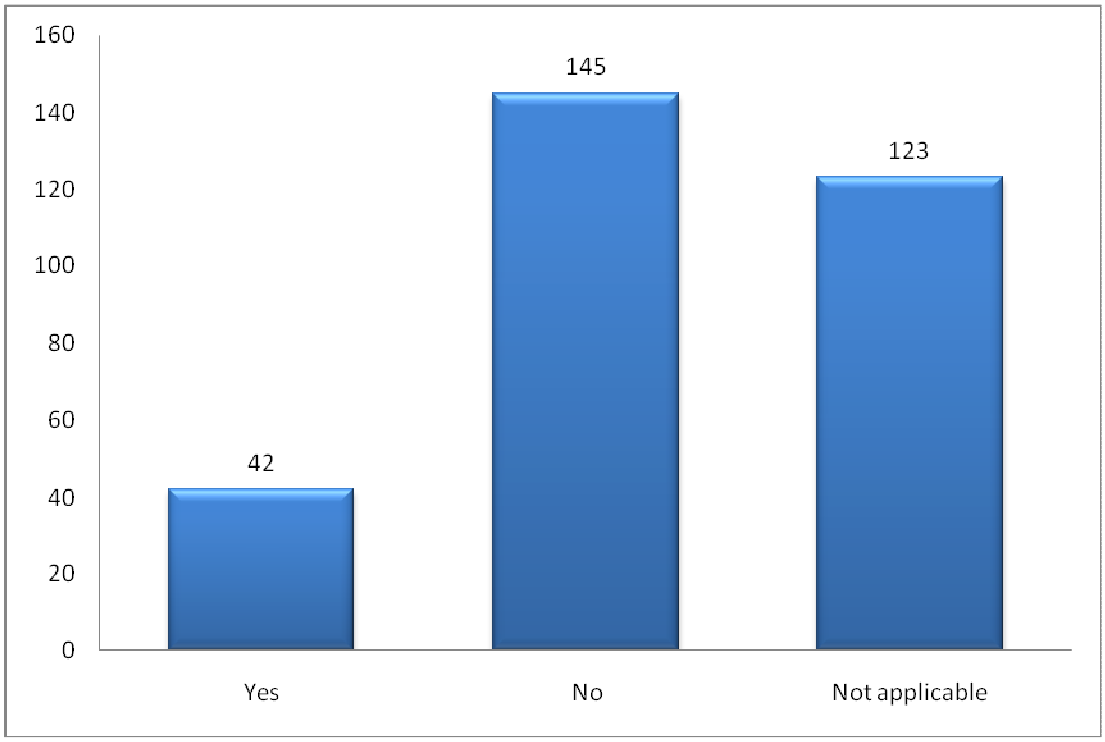

Figure 2: Bar chart showing the proportion of respondent who have discontinued the use of a Contraceptive method because of side effects

One third of respondents (36.66%, n=132) are not using any family planning method at the time of the study, (22.4%, n=20) are not using them because of the fear of side effects of modern contraceptives, (21.6%, n=19) desire to get pregnant while over half are not sexually active (57.6%, n=76).

Forty of the respondents (13.5%) have discontinued one form of contraceptive in the past because of side effect of the method used (see figure 2, above).

Table 9: Access to Family planning services among female students of the National University of Lesotho

Variables		N	%
Easy access to FP services	Yes	232	69
	No	34	10.1
	Not applicable	70	20.1
Services always available	Yes	205	61
	No	43	12.8
	Don't know	88	26.2
Pleased with Services	Very pleased	117	36.8
	partially services	81	25.5
	Don't know	97	30.5
	Not pleased	23	7.2
Service centre close to you	Yes	280	78.9
	No	75	21.1
Closest service centre	walking distance	173	49.9
	A taxi drop	108	31.1
	Two taxi drops	16	4.6
	Outside place of residence	22	6.3
	Don't know	28	8.1
Services available on Campus	Yes	223	63.7
	No	127	36.3

4.1.4 Access to family planning services

About two third (69%) of participants can easily access family planning services (table 9). The services are always available to most of them (61% of all participants). One third of respondents are very pleased with services while one quarter is partially pleased. Only few participants are not pleased with available family planning services (n=23, 7.2%). The services are close to most of them (78.9%) which is a walking distance about half of

all participants (49.9%) or a taxis' drop for about one third of them (31.1%). Two third of respondents are aware of the availability of family planning services on the university campus.

Figure 3 shows that about half of respondent use health centers for family planning services while private hospitals are the least used facility for family planning services.

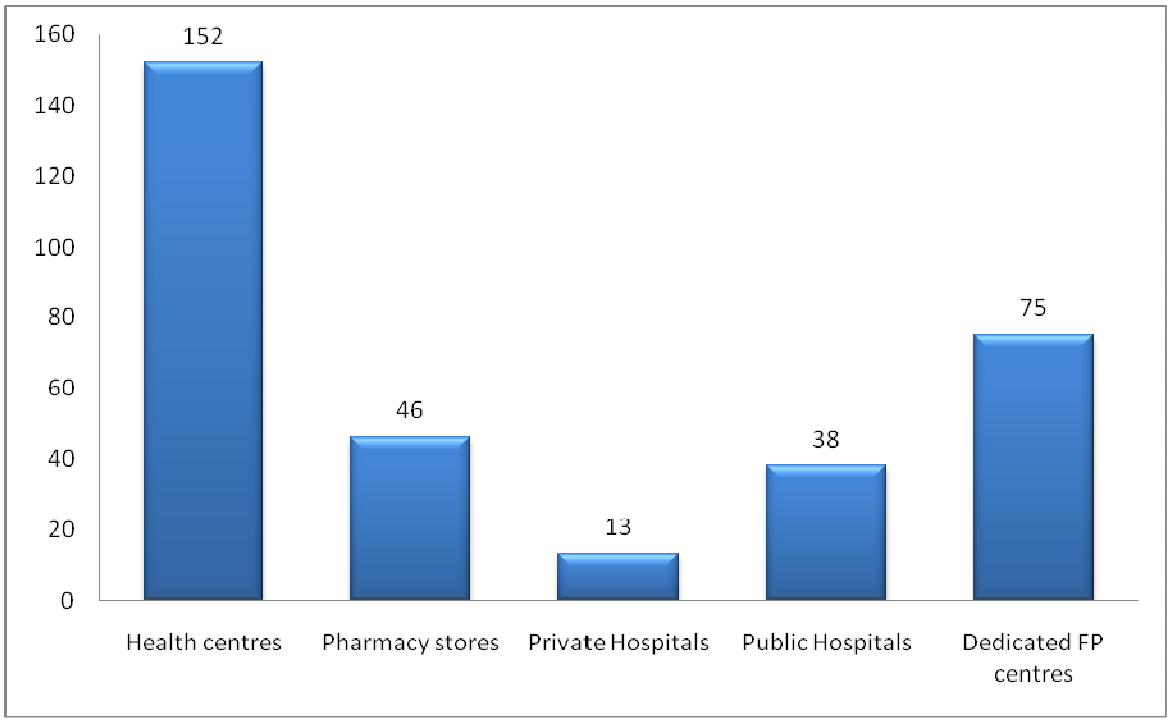

Figure 3: Bar chart showing the nature of family planning service providers among students of the National University of Lesotho

4.1.5 Barriers to services

Thirty of the respondents (8.6%) have been denied services in the past. The common reasons for these are; not menstruating at the time of seeking for service, too young to start contraception, not been married, too many clients or coming late. To majority of the service users the hours of services are convenient (44.3% of all respondents) but not to about 13.4% of respondents.

Table 10: Barriers to effective access and use of family planning services among female students of the National University of Lesotho

Variables		N	%
Denied FP services	Yes	30	8.6
	No	189	54.2
	Not applicable	130	37.2
Service hours convenient	Yes	152	44.3
	No	46	13.4
	Not applicable	79	23.4
Religion as a barrier	Yes	98	27.6
	No	171	48.2
	don't know	86	24.2
Discuss FP with partner	Yes	200	57
	No	71	20.2
	Not applicable	80	22.8
Partner agree use of FP	Yes	186	53.9
	No	31	9
	Not applicable	128	37.1
Family support use	Yes	104	30.1
	No	59	17.1
	Not applicable	182	52.8
Money as hindrance	Yes	51	14.7
	No	187	54
	Not applicable	108	31.2
Cost of services	Too expensive	29	8.2
	Little expensive	40	11.3
	Acceptable	189	53.4
	Don't know	96	27.1

The religion of 27.6% acts as a barrier to their use of modern contraceptives or family planning services. It does not about half of respondents (48.2%) while about a quarter does not know the stand of their religious group on the use of family planning services (24.2%). Over half have discussed family planning use with their partners prior to this

study. Twenty percent of respondents who are in a relationship have never discussed about family planning use with their partners. Some reasons given are fear of losing their partners. Partners of over half of respondents have consented to their use of family planning.

The family of 30.1% of respondents support their use of family planning while it is not so with 17.1%. Money has only been a hindrance to use of family planning in only 14.7% of respondents. Over half of participants (53.4%) agree that costs of family planning services are acceptable. But it is slightly expensive for 11.3% and too expensive to 8.2%. The present service hours are convenient to most respondents, but very few (n=66, 18.33%) would have preferred a more flexible working hour. Half of them will want services to be available over the weekends and as shown in figure 4.

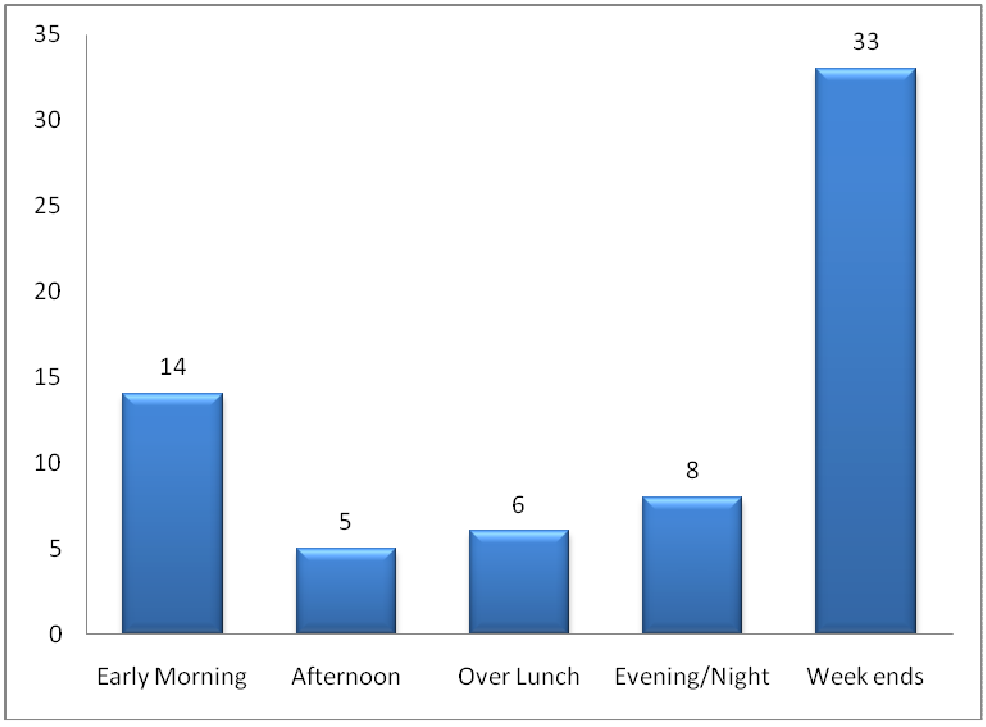

Figure 4: Bar chart showing the number of people who will want flexible convenient service hour outside the conventional service hours.

4.2 Part Two: Inferential statistics

In this section, the overall results given above from this study are further analyzed to elicit possible correlations that will contribute to making inferences.

Correlation between socio-demographic characteristics and current use of family planning methods, marital status and perception about overall benefits of family planning and individual religion as a barrier to contraceptive use and perceived negative outcome of family planning use were analyzed using chi square

Table 11: Association between socio-demographic factors and attitude of current use of modern contraceptive methods

Variables		Current use of modern Contraceptives		Chi square value	P Value
		Positive n (%)	Negative n (%)		
Age (years)	≥ 23	77 (61.11%)	49 (38.89%)	0.15	0.7029
	≤22	115 (58.97%)	80 (41.03%)		
	Total	192	129		
Marital status	Married	50 (74.63%)	17 (25.37%)	6.89	0.0087
	Not married	146 (57.03%)	110 (42.97)		
	Total	196	110		
Number of siblings	≤ 4	136 (58.62%)	96 (41.38%)	0.86	0.3531
	≥ 5	46 (64.79%)	25 (35.21%)		
	Total	182	121		
Religion against modern contraceptives	Against	55 (63.22%)	32 (36.78%)	0.19	0.6617
	Not against	96 (60.38%)	63 (39.62%)		
	Total	151	95		
Formerly taught FP at school	Taught	116 (62.37%)	70 (37.67%)	0.81	0.3681
	Not taught	81 (57.45%)	60 (42.55%)		
	Total	197	130		

Table 12.1: Association between marital status and perception of the overall benefit of family planning

Variables		Perception about overall benefit of contraceptives		Chi square value	P Value
		Agree n (%)	Don't agree n (%)		
Having a happy family	Ever married	53 (74.65)	18 (25.35)	0.00	0.9642
	Single (Never married)	203 (74.91)	68 (25.09)		
Couples who care for one another	Ever married	62 (74.85)	11 (25.15)	0.06	0.8025
	Single	235 (84.93)	38 (15.07)		
	Total	297	49		
Loving with peace of mind	Ever married	54 (73.97)	19 (26.03)	0.19	0.6614
	Single	192 (71.38)	77 (28.62)		
Brings relationship closer	Ever married	43 (58.90)	30 (41.10)	0.05	0.8197
	Single	151 (57.42)	112 (42.58)		
Husband love wife	Ever married	57 (76)	18 (24)	1.30	0.2540
	Single	189 (69.23)	84 (30.77)		
Beauty last long with few children	Ever married	38 (52.06)	35 (47.94)	0.01	0.9054
	Single	141 (51.27)	134 (48.73)		
Improves one standard of living	Ever married	62 (86.11)	10 (13.89)	0.00	0.9493
	Single	236 (85.82)	39 (14.18)		

4.2.1 Socio demographic characteristics and current contraceptive use.

Table 11 shows the analysis of correlation between socio-demographic characteristics of respondent and current contraceptive use. Chi square analysis shows that age of respondent ($X^2 = 0.15$, P = 0.7029) either young or old, number of siblings ($X^2 = 0.86$, P = 0.3531) less than 4 or greater, religion as a barrier to contraceptive use ($X^2 = 0.19$, P = 0.6617), or been formally taught about family planning at school ($X^2 = 0.81$, P = 0.3681) did not reveal any statistical difference with respect to current contraceptive use. However being married at present shows a significant statistical difference with respect to current family planning practice. ($X^2 = 6.89$, P = 0.0087). Married woman have more positive attitude toward current modern contraceptives used than unmarried woman. However marital status has no significant different in perceived benefit of contraceptives in relationship, but significant for mother health and gain strength (Table 12.1 and 12.2).

Table 12.2: Association between marital status and perception of the overall benefit of family planning (continued)

Variables		Perception about overall benefits		Chi square value	P Value
		Agree n (%)	Agree n (%)		
Helps mother regain strength	Ever married	64 (86.49)	10 (13.51)	7.21	0.0072
	Single	192 (71.11)	78 (28.89)		
	Total	256	88		
Protects children's health	Ever married	59 (79.73)	15 (20.27)	2.68	0.1012
	Single	190 (70.11)	81 (29.89)		
	Total	249	96		
Protects mothers health	Ever married	66 (88)	9 (12)	16.32	0.0000
	Single	173 (63.60)	99 (36.40)		
	Total	239	108		

4.2.2 Association between marital status and perceived benefit of family planning.

The marital status of participants, grouped into ever married (currently married, widow, separated or divorces) and never married was correlated against overall perceived benefits of family planning. Table 12 shows chi square analysis between marital status and perceived benefits. Having a happy family (X^2 = 0.00, P = 0.9642), couples who care for one another (X^2 = 0.06, P = 0.8025), loving with peace of mind (X^2 = 0.19, P = 0.6614), brings relationships closer (X^2 = 0.05, P = 0.8192), husband loves wife (X^2 = 1.30, P = 0.2540), beauty last long with few children (X^2 = 0.01, P = 0.9054), improves ones standard of living (X^2 = 0.00, P = 0.9493) and protects children's health (X^2 = 2.68, P = 0.1012) did not show any statistical difference. However there is a significant statistical difference between the two groups with respect to helping mothers to regain strength (X^2 = 7.21, P = 0.0072) and protection of mothers health (X^2 = 16.32, P = 0.0000). Married woman agreed more to benefit of contraceptives used to health and regain strength than unmarried woman.

Table 13 shows the association between been formally taught about family planning and the perceived associated negative effect that are associated with it. Chi square analysis shows a significant association between been taught about family planning with the belief that it causes cancer (X^2 = 8.8528, P value = 0.0029). The odds of associating family planning with causing cancer for those who were taught about family planning is 2.194 (95% CI 1.297 – 3.706).

4.2.3` Sexual activity and Unmet contraceptive need

Among the 360 respondents 76 are not sexually active, this give an overall sexual activity of 78.89% (n=284) among all participants. There were 283 single respondent, if the 2 widows and 4 separated/divorce sexual status is excluded the expected level of sexual activity among singles respondent will be (283-76 = 207) 73.15%.

Table 13: Association between having a formal teaching on family planning and perceived negative effect of modern family planning

Variables – negatives effect of using FP		Formally taught about family planning		Chi square value	P Value
		Yes n (%)	No n (%)		
Causes cancer	Causes	59 (29.4)	142 (70.6)	8.8528	0.0029
	Does not	25 (15.9)	132 (84.1)		
	Total	84	274		
Marital unfaithfulness	Enhances it	105 (52.2)	96 (47.8)	0.9189	0.3377
	Does not	74 (47.1)	83 (52.9)		
	Total	179	179		
Increase promiscuity	increased	40 (19.9)	161 (80.1)	0.0679	0.7944
	Not increased	33 (21.0)	124 (79.0)		
	Total	73	285		
Decrease sexual pleasure	Decrease it	35 (17.4)	166 (82.6)	0.0029	0.9574
	No change	27 (17.2)	130 (82.8)		
	Total	62	296		
unreliable	Unreliable	77 (38.3)	124 (61.7)	0.6991	0.4031
	Reliable	67 (42.7)	90 (57.3)		
	Total	144	214		

NB the odds of thinking that modern family planning causes cancer for those who were formerly taught is 2.194 (95% CI 1.297 – 3.706).

Among the 284 sexually active respondents 199 are using a form of family planning currently and 19 are desirous of pregnancy. From this there are 65 respondents who are sexually active who are not on any form of contraceptive and are not desirous of pregnancy giving an unmet contraceptive need of 24.9%.

CHAPTER 5
DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

The socio-demographic findings from this study are a mean age of 22.55years, median and modal age of 22 years and 84% belong to the age group 18-25 years. Their age range is from 18-41years. This is similar to age profile found among university students in Ethiopia from a study on knowledge of emergency contraceptives (Tamire & Enqueselassie 2007).

Over two third are single and majority of respondent are of Christian religion which is the predominant religion in Lesotho. Almost all of the respondents are of the black African race, the university primary care for the academic needs of Basothos. Over two-third of all respondent have sibling of 4 or less, which is in agreement with the known fertility rate of 3.5 in Lesotho (LDHS 2004).

The majority of the respondents are sexually experienced (78.80%). A similar level of sexual experience has been described in neighboring South Africa among young women age 15-24 years (Macphail 2007). However this is in contrast with findings from Ethiopia where only 19.5% of people of same age and academic background were found to be sexually experienced (Tamire & Enqueselassie 2007).

Awareness of contraceptives and family planning

The level of awareness of family planning in this study is very high (98.30%). It's in agreement with findings from the Lesotho demographic health survey of 2004 (LDHS 2004) which showed that about 97% of women age 15-49years know at least one method of contraceptive. This level of contraceptive awareness is high if compare to Nigeria

where the level of awareness range from 61.7 - 71% (Oye-Adeniran *et al* 2006). Although high level of contraceptive awareness is not always consistent with good knowledge (Onwuzurike and Uzochukwu 2001, Bankole *et al* 2004). Over two third of respondent (71.20%) knew about family planning during their secondary school education, 15% during primary school education while 13.10% came to know about it during their tertiary education.

Class room discussions among classmates or formal teachings are the main sources of information (31.13%) on contraceptive and family planning in this study. This is followed by the mass media and family /friends which together make up as much as 50% of the source of information and this agrees with some previous findings (Oye-Adeniran *et al* 2006). Half of the respondents (56.10%) have had a form of formal classroom teaching or discussion on family planning during the course of their education. The majority of the teachings were during their secondary school education (74%). Majority of respondents (93.30%) agreed that family planning should be taught formally in schools as part of academic curriculum, 46% want it to be taught at primary school level, 47.80% want it at secondary school level while only 6.2% want it at the tertiary level of education. The secondary school level may be the most appropriate academic level to teach family planning formally in school. Most students at secondary school level should be able to manage whatever information that is given through such teaching appropriately. Children in primary school may not be able to comprehend or manage the information that may be provided appropriately. The tertiary level of education will not be appropriate because it will be a fewer proportion of women who will have the benefit of having a tertiary education. According to the LDHS 2004, 56 percent of all women age 20-49years married before the age of 20 years and only 58% of women in urban areas have some secondary school education.

The most commonly known and used methods of modern contraceptive are condom , oral pills, injectables, emergency contraceptive pills, female and male sterilization, and intrauterine contraceptive device while Lactational amenorrhea and newer methods like

dermal patch and vagina ring are least known methods. The low knowledge about lactational amenorrhea is probably due to the fact that most of the respondents are singles and so have no experience with it while the newer methods are not readily available.

Most of the respondents know Condom as the method that can prevent sexually transmitted infection and HIV. Lesotho has a high HIV prevalence and lots of work has been done to increase the knowledge and use of condom in preventing transmission of HIV. Oral pills and the injectables are the most commonly available non barrier contraceptive methods in Lesotho. The level of awareness of emergency contraceptive in this study (61.40%) is similar to findings of 58% among Nigerian undergraduates (Azikem *et al* 2003), higher than 43.5% reported in Ethiopia among university students (Tamire & Enqueselassie 2007). However in America, level of awareness of emergency contraceptive as high as 94% has been reported among college students (Vahratian 2008). Known benefits of family planning use are birth control or prevention of unplanned or unwanted pregnancy. While most contraceptive will achieve this, the condom has the uniqueness of preventing sexually transmitted diseases and HIV. Condoms are proven to uniquely reduce the risk of HIV transmission in heterosexual relationship (Cates, 2005).

Marital unfaithfulness, increase promiscuity, decrease sexual pleasure, causing cancer and unreliability are the perceived negative outcomes of family planning in this study. Marital unfaithfulness and promiscuity are human characters which should not be affected by a contraceptive method. Moreover there are many individuals who exhibit this trait without necessarily using any family planning method. Although an association has been found between use of combine oral pills and cervical and breast cancer, a causal relationship does not exist. When adjustments are made for combine oral pills with respect to human papilloma virus and cervical cancer, the association between combine pills and cervical cancer becomes insignificant (Kjellberg *et al* 2000), rather than causing cancer the hormonal contraceptives have been proven to reduce cancer of the ovary, endometrium and colon. Five years use of oral contraceptives reduces the risk of ovarian cancer by about 50% (Franco & Duarte-Franco, 2008).

Family planning is an effective means of preventing pregnancy, yet 40.6% of respondents think it is unreliable. This is probably due to the problem of actual use of contraceptives as opposed to the expected typical use, or a reflection of misconception people have about modern contraceptives. The copper T IUCD is about 99.2% effective (Tinelli *et al*, 2006), while the combined oral pills has about same efficiency or more if used correctly. Having a happy family, couples who care for one another, loving with peace, closer relationship, husband loves wife, beauty last long with few children, improve ones standard of living, mothers regains strength and protection of mother and children are perceived benefits of family planning that most of the participants agree with. However the perception of couples who care for one another (85.2%), improving ones standard of living (85.7%) and protection of mother's health are the three most outstanding perceived benefits of family planning. These were followed by happy family (75%), mother regain strength (74.8%), loving with peace (71.8%) and protection of children's health. Most of the promotions on family planning have been on having the number of children that couples can financially cope with. This result reveals other strategies that can be employed in promoting family planning in the future which are financial empowerment of women, having a good health and as an expression of the level of care couples have for one another.

From inferential analysis on perception of overall benefits of family planning with marital status, regaining of mother's strength (X^2 = 7.21, P value = 0.0072) and protection of mother's health (X^2 = 16.32, P value = 0.0000) reveals a clear difference between the perception of married and unmarried respondents. It became obvious that the experience of the married women differs greatly from those of the free singles with respect to the health benefits for women using family planning. Family planning has been shown to have clear benefit of reducing poverty, maternal and child morbidity and mortality and enhance the health of mothers and children (Cleland *et al,* 2006).

Utilization of family planning services

The contraceptive prevalence in this study is 60.5%. Condom is the most important contraceptive method used by participants in this study (70.07%). The high proportion of condom use as a contraceptive prevalence may have been due to its dual protection effect as an effective contraception and its protection against HIV and STIs. The prevalence of HIV in Lesotho is high and condom promotion is been actively done. The LDHS 2004 showed that 62% of sexually active unmarried women have used the male condom which is similar the finding of this study.

The contraceptive prevalence in this study is very high and is possibly due to the level of education of the participants since the level of contraceptive use has been found to parallel educational status. In Nigeria the contraceptive prevalence among undergraduates was found to be 34.2% (Arowojolu *et al*, 2002) compare to the general national prevalence of 14.8% (Oye-Adeniran etal2006). The LDHS 2004 also revealed that contraceptive prevalence increase from 9% among women with no education to 49% among currently married women with some secondary school education.

Other methods of modern contraceptives used by respondents in this study are emergency contraceptive pills (7.27%), injectables (9.59) and oral pills (6.90%). The relative low proportion of these other methods compared to condom may be due to majority of respondents being singles and engage in sexual activity casually.

Most current users are using them to prevent pregnancy (49.2%) or STI/HIV (45.9%). Only 0.98% is using contraceptive method to manage Gynaecological problems. This is comparable to findings in Greece where about 1.5-2% of all women are using oral pills for medical reasons (Tountas *et al*, 2004).

Over half of non users are not sexually active, about one quarter are not doing so because of the fear of side effect. This occurrence has been found by other researchers

(Arowojolu *et al* 2002, Oye-Adeniran *et al* 2006). Some of respondent have discontinued a form of contraceptive method in the past because of side effects. Proper counselling of clients about possible side effect has been found to reduce discontinuation of family planning because of side effect (Arowojolu *et al* 2002).

Access to family planning services

About two third of respondents can easily access family planning services and to majority them the services are always available. For most respondents there is a service centre that is close to their place of residence which is often within a walking distance and for one third it's within a taxi drop. A taxi drop in Lesotho cost about four rand fifty cents. Majorities are aware of the availability of family planning services within their university campus and this will be expected to offer easy access in the absence of other constraints. The most commonly used facilities are the health centers (46.9%), pharmacy stores and private hospitals less frequently used, 11.83% use public hospitals while 23.2 uses dedicated major family planning services. That a higher proportion of users are using the health center is very encouraging and this agrees with the fact that two-third can easily access service centers which is located within walking distance. A decentralized family planning service system will increase service utilization and contraceptive prevalence due to easy access (Soon *et al* 2005). In Ethiopia inaccessibility to contraceptives was found to be a major cause of unwanted pregnancy (Senbeto 2005). The low involvements of private Hospitals in provision of family planning deserve attention. It may be due to cost, since private hospitals services often more compare to public services or to the improve access to health services through the health centers.

The correlation of demographic factors with current use of family planning shows a significant difference between current use of family planning among married and single women (X^2 = 6.89, P value = 0.0087). A possible explanation can be due to nature of some family planning structure that segregate services offered to married or unmarried women seeking for contraceptive services (Cleland *et al* 2006). But it can also be due to

thinking among young people that they only involve in casual sex and so don't need to use contraceptives (Kautfman *et al* 2003, Oye-Adeniran *et al* 2006, Breheny & Stephen 2007).

Barriers to family planning services

Very few numbers of respondents have encountered some difficulty while seeking for family planning services, 8.6% have been denied access to services at one time or the other. The most common reason for denial of services was that they were not menstruating at the time of their visit. Some were told that they were too young to access family planning services or were not married. Others were told that services are offered only in the morning hours. These groups of complaints have been found to be a major barrier to services among the traditional health care services (Campbell *et al* 2006). Although it is desired that clients should be menstruating to ensure that there is no ongoing pregnancy, it is not a must for service provision.

The hours of services are not suitable for 13.4% of respondents. Majority of this group of respondents would have preferred weekends for their family planning services. For now most of the service providers do not operate at weekends, except for private hospitals which according to findings of this study are rarely used, as only 4% of current users of family planning use private hospitals.

Being taught formally on family planning is significantly associated with increased perception of negative effect of family planning. A significant number of those who are formally taught think that family planning causes cancer ($X^2 = 8.8528$, $P = 0.0029$). This confirm some studies which have reported that majority of young women who have reported receiving little sex or contraceptive education have simply received education that reinforced common misperceptions on modern contraceptives (Castle 2003, Richter & Mlambo 2005, Wood & Jewkes 2006, William *et al*). It was surprising to find out that

50.9% of respondents from faculty of health sciences compare to education (21.8%), humanities (3.7%) and social sciences (22.6%) think that family planning causes cancer. About one in five (20.2%) have never discussed the issue of family planning with their partners and reasons for this are fear of rejection, losing the partner or partner unwilling to engage in such discussion, this highlight the need for communication skills in issue relating to sexuality. A fair proportion has approval of their family for use of contraceptives and Money has not been a barrier to family planning use for majority of the participants (54.0%), it is only about 14.7% of all respondents that money has been a barrier to contraceptive use. Majority agrees that the cost of contraceptives is acceptable (53.4%) while 11.3% thinks it is a little expensive while 8.2% think cost of service is too expensive.

In Lesotho on average it cost about 30-45 rand for 1year dose of Depo proveral or about 15-25 rand to insert an IUCD which in the absence of any major problem can remain in use for 5-10 years. Most of the expenses for those who think of cost been too expensive may be on the procurement of condom for those who may not be having access to free condom. Procuring condom from retailers may be slightly expensive.

The calculated unmet contraceptive need in this study is 24.9%, this is slightly lower than the 31% estimated unmet need for Lesotho in general but agree with the lower limit of 25% found in the urban and more educated low land compares to 41% reported the rural less educated high lands (LDHS 2004). This study was done in a tertiary institution located in low land capital city of Lesotho.

5.2 Conclusion

The reproductive health of young people remains a global concern. Unplanned pregnancy, unsafe abortion and sexually transmitted infections are significant reproductive health challenges in developing countries to be conquered. An organized comprehensive family planning and sex education programme that is responsive to the need of young people may become a necessity for these challenges to be overcome.
The aim of the study was to determine the level of awareness, utilization and barriers to family planning services among female students of the National University of Lesotho.

Through a descriptive cross-sectional survey the level of awareness, perception, utilization and barriers to family planning use and services among three hundred and sixty under graduates were surveyed through a self administered questionnaire.

Descriptive and inferential statistical methods were used to analyze the data from the survey. The following are the main findings from this study;

The level of awareness of family planning among undergraduate students of the National University of Lesotho is high (98.30%) and a high proportion of participants knew about family planning while they were in secondary school (71.20%). Class room discussion (formal and informal) is the first most common source of information (31.13%) among the participants and Over half of participants (56.10%) have had a form of formal class room teaching on family planning at one or more levels of their education.

Almost all of the women (93.30%) agree that contraceptives should be taught in the class room as part of normal education curriculum, 41% want it taught in primary school level while 47% want it taught at secondary school level.

Most participants know condom as the contraceptive method that can effectively prevent sexually transmitted infections. The known benefits of family planning are prevention of unplanned/unwanted pregnancy (93.6%), child spacing and prevention of sexually transmitted disease (55.6%).

The overall positive perception of the benefits of contraceptive is good. These includes having a happy family (75%), couples who care for one another (86.2%), closer relationship (55.9%), husband love his wife (70.7%), beauty last long with few children, improve one's standard of living (85.7%) helps mothers regain strength (74.8%) protect children's health (72.2%) and protects mother's health (83.4%). While negative perception are contraceptive are causing cancer (23.6), increase promiscuity (20.30%) decrease sexual pleasure (17.50%) or unreliable (40.6%).

The contraceptive prevalence in this study is 60.5%. 43% is for prevention pregnancy while others are for prevention of STI. 13.5% have discontinued one form of contraceptives in the past because of side effect.

Majority (69%) can easily access services and always available (61%), services are available within individual's locality (78.9%), within walking distance (49.9%) and a taxi drop (31.1%). The most commonly used family planning facilities are health centers. And 48.2% of all respondents find the hours of service convenient for them, but service hours are not convenient for 13.4% of all respondents. And half of the will desire that services should be at weekends.

Over half (57%) of respondents have discussed family planning with their partners while 20% have not. Money does not constitute a banner to use of family planning by majority of respondents except for 14.7%. The proportion of sexually active participants is 78.89% (73.15% among single respondents) and the unmet need for contraceptive in this study is 24.9%

Being married is significantly associated with current contraceptive use ($X^2 = 6.89$, P = 0.0087). A strong positive perception about health benefit such as regaining of mothers strength ($X^2 = 7.21$, P = 0.0072) and protection of mother's health ($X^2 = 16.32$, P value = 0.0000). Formal classroom teaching is significantly associated with misconception about family planning, especially on the perception that it causes cancer ($X^2 = 8.8528$, P = 0.0029).

5.3 Recommendations

Based on this study the following are recommended for action.

I. There is the need for the National University of Lesotho to incorporate sexual health programmes for newly admitted students. They should be introduced to reproductive health services that are available within the University premises.

II. The ministry of education in collaboration with the ministry of health and social welfare should ensure that reproductive health be introduced into the school curriculum to enable every youth have an opportunity to prepare responsibly for healthy sexual life.

III. An education program/curriculum should be designed based on current available scientific knowledge to impact correct and accurate knowledge about family planning and sexual health. This is to avoid continuous mis-information and wrong teaching that constitute the present unstructured teaching on family planning which rely on the individual experience of teachers that are not skilled or trained in reproductive health.

IV. The ministry of health should improve on their present success on family planning network to allow for modified service provision that will cater for the needs of people who require service provision over the weekends or evening which are outside the current service provision schedule.

V. There is the need for continuous retraining of family planning service providers so that they are up to date with emerging trend in contraceptive advancement and provision of effective counselling.

VI. There is the need to impact life skills in the young so as to empower and enable them develop the appropriate negotiation skill especially in the area of reproductive and sexual health.

VII. Continuous effort to educate all children, most especially the female child in preparation for a healthy sexual and reproductive future.

VIII. Increase effort to offer reproductive health services that are well motivated and responsive to the sexual and reproductive needs of adolescents.

IX. It is needful to conduct further community based studies especially among young people who do not have the benefit of tertiary or secondary school education. This will

allow for an understanding of how to effectively serve this larger group of the community.

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APPENDICES

CONSENT FORM **APPENDIX 1**

UNIVERSITY OF LIMPOPO (Medunsa Campus) CONSENT FORM

Statement concerning participation in a Research Project

Name of Study

Awareness, use and barriers to family planning services among female students at the National University of Lesotho

I have read the information on the aims and objectives of the proposed study and was provided the opportunity to ask questions and given adequate time to rethink the issue. The aim and objectives of the study are sufficiently clear to me. I have not been pressurized to participate in any way.

I understand that participation in this Study is completely voluntary and that I may withdraw from it at any time and without supplying reasons. This will have no effect on me in any ways.

I know that this Study has been approved by the Medunsa Campus Research and Ethics (MCREC), University of Limpopo (Medunsa Campus). I am fully aware that the results of this Study will be used for scientific purposes and may be published. I agree to this, provided my privacy is guaranteed.

I hereby give consent to participate in this Study

....

Initial Signature of volunteer.

NUL Roma, Lesotho.

....

Place. Date. Witness

Statement by the Researcher

I provided verbal and/or written information regarding this Study

I agree to answer any future questions concerning the Study as best as I am able.

I will adhere to the approved protocol.

Dr Akintade O L NUL Roma, Lesotho

....……

Name of Researcher Signature Date Place

Appendix 2

Letter of permission

National School of Public Health

Medunsa campus

University of Limpopo

Medunsa

South Africa.

3rd September 2009

The Registrar

National University of Lesotho

Roma,

Lesotho.

Dear Sir,

Application for permission to conduct a research among your students

I the undersigned a master's student of Public health in the above named institution hereby apply for your permission to conduct a research study in partial fulfillment of the requirement for the above mentioned programme among your students.

A proposal for the study has been submitted to the university of Limpopo ethical and research committee for approval. A copy of the ethical committee's approval for the study and the questionnaire are attached.

I will be very grateful if am permitted to conduct this study.

Thanks

Yours faithfully,

Dr Akintade O.L

Appendix 3

Letter of introduction and Questionnaire

Title: Awareness, use and barriers to family planning services among female Students at the National University of Lesotho

Introduction

I am Dr Akintade O.L, a master student of the National School of Public Health Medunsa Campus, University of Limpopo in South Africa. I am conducting a study on knowledge, use and barriers to effective contraceptive use among female Students at the National University of Lesotho.

Your right to participate or not in this study is respected. All information collected will be solely for research purpose and will be treated as confidential. It does not require your name or identity. The questionnaire will be destroyed when the study is completed.

I will be very grateful if you chose to participate. You are expected to be 18years or above to participate in this study. Please fill the attached consent form as a sign of your voluntary participation.

Instruction

Please chose the answer that is most appropriate with a tick and provide explanation in simple words where applicable. It may take you about 15 to 20 minutes to fill this questionnaire

Thanks for your participation.

Questions

Section A. Social and demographic characteristics

1. How old are you? _____
2. Faculty_____
3. What is your marital status

Single ☐ Married ☐ Separated/divorced ☐ Widow ☐

4. What religion do you practice

Christianity ☐ Islam ☐ Traditional ☐ Others ☐

5. What Ethnic group do you belong to?

Black African ☐ White African ☐ Asian ☐

Others (specify) _____

6. How many Siblings were you having

1-2 ☐ 3-4 ☐ 5-6 ☐ 7 and above ☐

Section B: Your awareness of Contraceptives and family planning services

7. Do you know about contraceptives/family planning methods

Yes ☐ No ☐

8. Are you aware that contraceptives are used to control births and space children

☐ Yes ☐ No ☐ t know

9. From Item 8: If yes, at what level of your schooling did you get to know about it Primary ☐ Secondary ☐ Tertiary/University ☐

10. What were your sources of information? (you can tick more than one)

Hospital/Health Worker ☐ Mass media (TV/Radio, Newspaper) ☐ Internet ☐
Friends/Relatives ☐ Classroom ☐

Others (please specify) _____

11. Have you had any formal (class room) teaching on family planning throughout your years of schooling? Yes ☐ No ☐

12. From **Item 11**: If yes, at what level

Primary ☐ Secondary ☐ Tertiary/University ☐

13. Do you think family planning should be taught in schools?

Yes ☐ No ☐

14. From **Item 13:** If yes, at what level should family planning be taught in school

Primary ☐ secondary ☐ Tertiary ☐

15. Which methods of modern family planning do you know (you can tick more than one)

Oral Pills ☐ Injectables ☐ intra-uterine-contraceptive (IUCD) ☐
norplant/Implants ☐ Condom ☐ Spermicidal ☐

Emergency contraceptives (morning ☐ pills) ☐ Dermal Patch ☐ Vaginal ring
Lactational Amenorrhea ☐ Female Sterilization (Tubal ligation) ☐ Male Sterilization
(Vasectomy) ☐ Natural family planning ☐ Others (Specify) _____

Don't know any ☐

16. Which family planning method/s can prevent sexually transmitted infections (STIs) and HIV/AIDS? (you can tick more than one)

Oral Pills ☐ Injectables ☐ intra uterine contraceptive(IUCD) ☐ Norplant/Implants
Condom ☐ Spermicidal ☐

Emergency contraceptives (morning after pills) ☐ Dermal Patch ☐ Vaginal rings ☐
Lactational Amenorrhea ☐ Female Sterilization (Tubal ligation) ☐ Male Sterilization
(Vasectomy) ☐ Natural family planning ☐ Others (Specify) ☐
_____

Don't know any ☐

Section C

Attitude toward contraceptive and family planning

17. What are the benefits you think one can derive from family planning?

(you can tick more than one)

Control number of birth ☐ Prevent unplanned/unwanted pregnancy ☐

Prevent sexually transmitted infection ☐ Enhance sexual performance ☐

No significant positive effect ☐ Don't know ☐

18. Please express your perception about the overall benefits of family planning by ticking one of the five responses to each statement

Practicing family planning is associated with:	Strongly agree	Partially agree	Don't agree	Partially disagree	Strongly disagree
Having a happy family.					
For couples who care for one another					
Loving with peace of mind					
Bringing the relationship closer					
A husband who loves his wife					
Beauty lasts longer with fewer children					
Improving one's standard of living					
Helps mother regain strength after birth					
Protects children's health					
Protects mother's health					

19. What in your opinion are the negative effects of family planning?

Causes cancer ☐ enhances marital unfaithfulness ☐ Increase promiscuity ☐
Decrease sexual pleasure ☐ unreliable ☐

No significant negatives effect ☐

Section D: Your experience using family planning methods and services

20. Are you or your partner currently using any method now

Yes ☐ No ☐

21. From Item 20: **If yes**, what method/s are you or your partner currently using (tick)

Oral Pills ☐ Injectables ☐ intra uterine contraceptive (IUCD) ☐

Norplant/Implants ☐ Condom ☐ Spermicidal ☐

Emergency contraceptives (morning after pills) ☐ Dermal Patch ☐

Vaginal rings ☐ Lactational Amenorrhea ☐

Female Sterilization (Tubal ligation ☐ Male Sterilization (Vasectomy) ☐

Natural family planning ☐ Others (Specify) _____

22. From Item 20: **If no**, have you ever used any method/s before

Yes ☐ No ☐

If yes what method/s (tick)

Oral Pills ☐ Injectables ☐ intra uterine contraceptive(IUCD) ☐

Norplant/Implants ☐ ☐ Condom ☐ Spermicidal ☐ Emergency contraceptives (morning after pills) ☐ Dermal Patch ☐ Vaginal rings ☐ Lactational Amenorrhea ☐ Female Sterilization (Tubal ligation) ☐ Male Sterilization (Vasectomy)

Natural family planning ☐ Others (Specify) _____

23. Have you discontinue family planning use in the past because of side effect

Yes ☐ No ☐ Not applicable ☐

24. Why are you using family planning? **(if presently using any)**

Prevent pregnancy ☐ prevent STIs/HIV ☐

enhance sexual performance ☐ Treat gynaecological problem ☐

25. Why are you not using family planning now (**if not using any**)

Not sexually active ☐ desire to get pregnant ☐

preventing pregnancy by other means ☐ I feel I can't get pregnant ☐

Afraid of possible side effects ☐

Other reasons (specify)_____

26. Can you easily access the services?

Yes ☐ No ☐ Not applicable ☐

27. Are the services always available?

Yes ☐ No ☐ don't know ☐

28. Are you pleased with the services?

Very pleased ☐ partially pleased ☐ don't know ☐ Not pleased ☐

Section E: Barriers to family planning services

29. Do you know of any family planning service centre that is close to your house?

Yes ☐ No ☐

30. How close is the nearest centre to you?

Within walking distance ☐ a taxi drop ☐ two taxi drops ☐

outside your place of residence ☐ Don't know ☐

31. What is the nature of your service provider?

Pharmacy store ☐ Health centre ☐ private hospital ☐

Public Hospital ☐ Dedicated family planning centre (eg LPPA) ☐

32. Are you aware if there are family planning services on your campus?

Yes ☐ No ☐

33. Have you ever been denied contraceptive/family planning service before?

Yes ☐ No ☐ Not Applicable ☐

34. If yes, what was the problem/reason (Specify) _____

35. Have you ever been turned back/refused services from family planning service centre during working hours before for any reason?

Yes ☐ No ☐ Not applicable ☐

36. From Item 35: If yes what was the reason (specify)_____

37. Are the hours the facility open convenient for you

Yes ☐ No ☐ Don't Know ☐ Not applicable ☐

38. From Item 37: If no what time will be most convenient for you

Early in the morning ☐ Over lunch hour ☐ Afternoon ☐

Evening/night ☐ weekends ☐ Holidays ☐ Others_____

39. Does your religious belief act as a barrier to contraceptive use

Yes ☐ No ☐ Don't know ☐

40. Have you discuss with your spouse/partner about the use of family planning at any time?

Yes ☐ No ☐ Not applicable ☐

41. D id your partners agree to your use of family planning?

Yes ☐ No ☐ Not applicable ☐

42. Is your family in support of your use of family planning?

Yes ☐ No ☐ Not applicable ☐

43. Has money ever hindered you from the use of family planning?

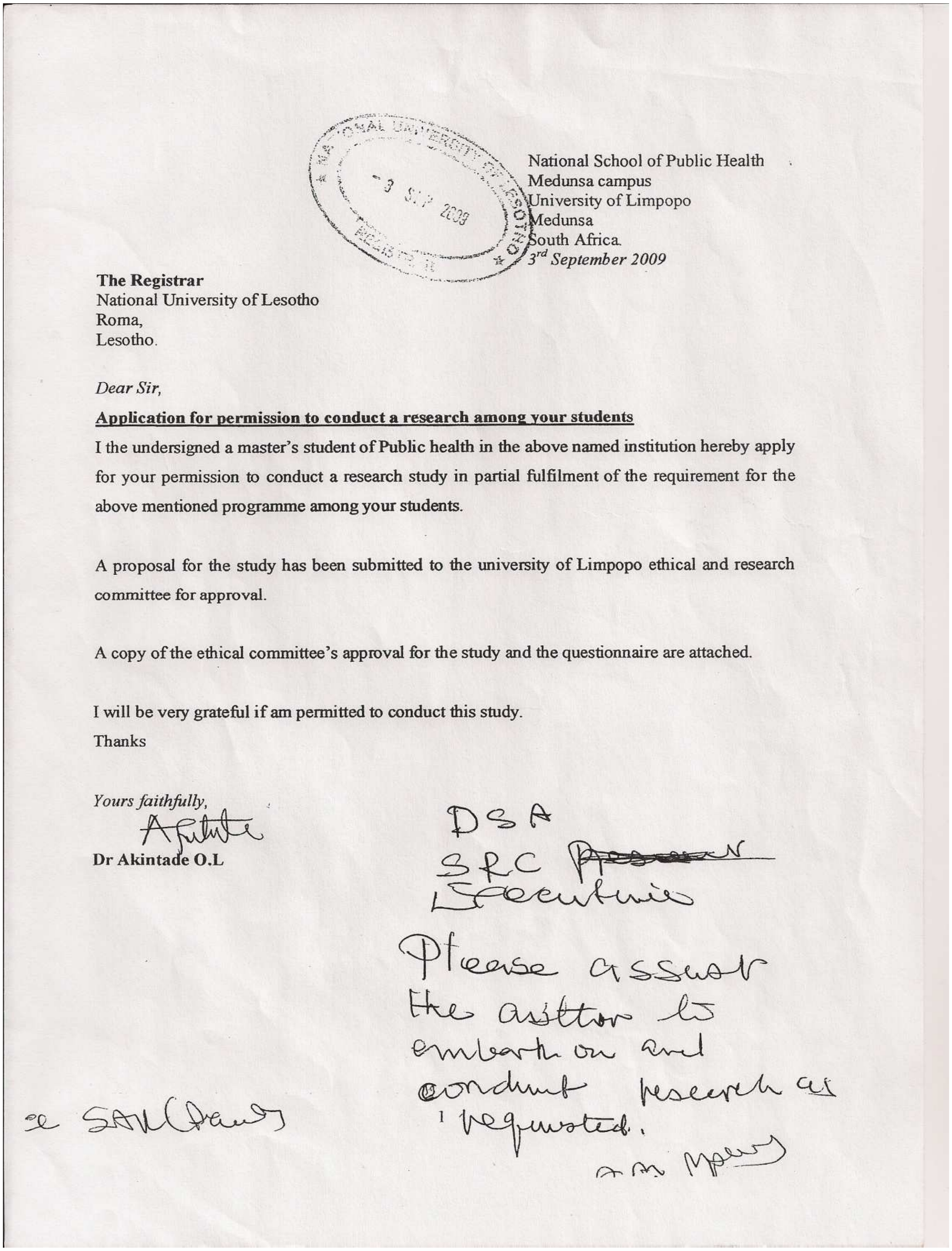
Yes ☐ No ☐ Not Applicable ☐

44. Overall what do you think about the cost of obtaining family planning services?

Much too expensive ☐ A little too expensive ☐ Acceptable ☐
Don't know ☐

Thanks for your participation.

Approval from National University of Lesotho



NATIONAL UNIVERSITY OF LESOTHO
-3 SEP 2009
REGISTRAR

National School of Public Health
Medunsa campus
University of Limpopo
Medunsa
South Africa.
3rd September 2009

The Registrar
National University of Lesotho
Roma,
Lesotho.

Dear Sir,

Application for permission to conduct a research among your students

I the undersigned a master's student of Public health in the above named institution hereby apply for your permission to conduct a research study in partial fulfilment of the requirement for the above mentioned programme among your students.

A proposal for the study has been submitted to the university of Limpopo ethical and research committee for approval.

A copy of the ethical committee's approval for the study and the questionnaire are attached.

I will be very grateful if am permitted to conduct this study.
Thanks

Yours faithfully,
[signature]
Dr Akintade O.L

DSA
SRC ~~President~~
Secretaries
Please assist the author to embark on and conduct research as requested.
[signature]

cc SAA (Dean)

Appendix 5

Data Collection confirmation Sheet

FACULTY OF HEALTH SCIENCES, SCHOOL OF PUBLIC HEALTH
STUDENT RESEARCH PROJECT MANAGEMENT
DATA COLLECTION CONFIRMATION SHEET

1. Researcher declaration

Name of Researcher …Akintade O L
Title of study: Awareness, use and barriers to family planning services among young female Students at the National University of Lesotho

Research project Number …MREC/PH/32/2009: PG……
Period of data collection: Initiated…02-11-09……Completed.. 25-11-09……

I hereby declare that I collected data according to the specifications of the approved proposal.
Signed:……Akintade……

2. Research site and activities

Name of organization/institution …National University of Lesotho

Type of organization/institution (mark with an X)				
Industry	Health facility	Educational institution X	NGO	Other (specify)

Town/Village (name)	Country
Roma	Lesotho

Main data collection activities (sign against all applicable)			
Interviews	Focus groups	Record reviews	Self-administered questionnaire X

Other people involved in data collection Morie Mapoulo, Matseliso Ramangoane, Keta Mahlape, Mamoneheng Posholi……

I, ANNE M. MPHUTLANA being the ……Registrar…… (position) of the above organization/institution, hereby confirm that the researcher named above collected data as indicated
Signature_____ Date 30/11/09

Contact details of organization/institution

Postal/Physical address …Office of the Registrar……
National University of Lesotho, Roma,
Lesotho……
Telephone 26622340601 Facsimile 26622340000
Email ……

Official stamp of organization
NATIONAL UNIVERSITY OF LESOTHO
30 NOV 2009
REGISTRAR

Appendix 6

Ethical Clearance from MREC

UNIVERSITY OF LIMPOPO
Medunsa Campus

MEDUNSA RESEARCH & ETHICS COMMITTEE

CLEARANCE CERTIFICATE

P O Medunsa
Medunsa
0204
SOUTH AFRICA

Tel: 012 - 521 4000
Fax: 012 - 560 0085

MEETING: 04/2009

PROJECT NUMBER: MREC/PH/32/2009: PG

PROJECT :

Title: Awareness, use and barriers to family planning services among female students at the National University of Lesotho

Researcher: Dr OL Akintade
Supervisor: Prof S Pengpid
Department: Health System Management and Policy
School: Public Health
Degree: MPH

DECISION OF THE COMMITTEE:

MREC approved the project.

DATE: 06 May 2009

PROF N EBRAHIM
DEPUTY CHAIRPERSON MREC

Note:
i) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.
ii) The budget for the research will be considered separately from the protocol.
PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

African Excellence – Global Leadership

Appendix 7

Time Table and Budget

Time table

Tasks to be completed	Time
Proposal to be presented to the lecturer and students	07/2008
Proposal to be submitted to the course supervisor	09/2009
Proposal to be submitted to REPC	02/2009
Proposal to be presented to the NUL, Lesotho	09/2009
Pre-test and pilot study	09/2009
End collecting data	11/2009
Complete data analysis	01/2010
Final draft sent to others for comments	02/2010
Submission of final report	02/2010

Budget

Items	Amount
Pre-test, pilot	R 500.00
Data collectors fee	R 4 000.00
Data analysis	R 1 000.00
Stationery + computer	R 4 000.00
Photocopying	R 500.00
Binding	R 2 000.00
Other logistics	R 500.00
Total	**R 12 500.00**

Appendix 8

Coding manual

Name/ symbol	Number of variables	Variables and Labels	Code
A	1	ID	Questionnaire ID
B	2	Age	
C	3	Faculty	1=Education, 2=Health Sciences, 3=Humanities, 4=Social sciences.
D	4	Marital Status	1=Single, 2=Married, 3=Separated/divorced, 4=Widow
E	5	Religion	1=Christianity, 2=Islam, 3=Traditional, 4=Others.
F	6	Ethnic group	1=Black African, 2=White African, 3=Asian, 4=Others.
G	7	Number of siblings	1=1-2, 2=3-4, 3=5-6, 4=7 and above.
H	8	Know about contraceptive/fp	1=yes, 2=No
I	9	Awareness; use contraceptive/fp for birth control	1=yes, 2=No, 3= don't know
J	10	Level of school got to know about fp use	1=Primary, 2=Secondary, 3=Tertiary/University
K	11	Source of info	1=Hospital/Health workers, 2=Mass media, 3=Internet, 4=Friends/relatives 5=Classroom, 6=others
L	12	any classroom teaching on fp	1=Yes, 2=No
M	13	Level of class room teaching	1=Primary, 2=Secondary, 3=University/Tertiary
N	14	Should Fp be	1=Yes, 2=No

		taught in school	
O	15	Level fp be taught in school	1=primary, 2=secondary, 3=Tertiary/University
P	16	Known methods of fp	Checked boxes used
Q	17	Which prevent STI	
R	18	Benefits from fp	1=control number of births, 2=prevent unplanned/unwanted pregnancy, 3=prevent STI, 4=enhance sexual performance, 5=no positive effect, 6=don't know
S	19	Perception about overall benefit	1=strongly agree, 2=partially agree, 3=don't agree, 4=partially disagree 5=strongly disagree
T	20	Negative effect of fp	1=causes cancer, 2=enhance marital unfaithfulness, 3=increase promiscuity, 4=decreases sexual pleasure, 5=unreliable, 6=none.
U	21	Current use of fp	1=Yes, 2=No
V	22	Method/s currently use	Checked boxes used
W	22b	Ever used fp before	1=Yes, 2=No
X	23	Method ever used	Checked boxes used
Y	24	Discontinue fp because of side effect	1=Yes, 2=No, 3=Not applicable
Z	25	Reason for present use	1=prevent pregnancy, 2=prevent STIs/HIV, 3=enhance sexual performance, 4=treat gynaecological problems
AA	26	Reason for not using	1=not sexually active, 2=desire to get pregnant, 3=preventing pregnancy by other means, 4=feel I can't get pregnancy, 5=afraid of side effect, 6=other reasons

AB	27	Easy access to fp services	1=Yes, 2=No,3=Not applicable
AC	28	Services always available	1=Yes, 2=No, 3=don't know
AD	29	Pleased with service provision	1=very pleased, 2=partially pleased, 3=don't know, 4=not pleased
AE	30	Know fp center close to you	1=Yes, 2=No
AF	31	Proximity to fp service center	1=walking distance, 2=a taxi drop, 3=2 taxi drops, 4=outside place of residence, 5=don't know
AG	32	Nature of service provider	1=pharmacy, 2=Health center, 3=Private hosp, 4=Public hosp, 5=Dedicated FP center
AH	33	Aware of availability of fp services in campus	1=Yes, 2=No
AI	34	Denied fp services before	1=Yes, 2=No, 3=Not applicable
AJ	35	Turned back/refused fp services	1=Yes, 2=No, 3=Not applicable
AK	37	Convenient hour of services	1=Yes, 2=No, 3=Not applicable, 4=don't know
AL	38	Most convenient hour of fp services	1=early morning, 2=lunch hour, 3=afternoon, 4=evening/night, 5=weekends, 6=holidays, 7=others
AM	39	Religion as a barrier	1=Yes, 2=No, 3=don't know
AN	40	Discuss fp with spouse/partner	1=Yes, 2=No, 3=Not applicable
AO	41	Partner agree with use of fp	1=Yes, 2=No, 3=Not applicable

AP	42	Family support use of fp	1=Yes, 2=No, 3=Not applicable