COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR POPULATION STUDIES

ASSESSMENT CORRELATES OF MODERN CONTRACEPTIVE USE AMONG ADDIS ABABA UNIVERSITY REGULARUNDER GRADUATE STUDENTS, ADDIS ABABA ETHIOPIA.

BY

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A THESIS SUBMITTED TO THE CENTER FOR POPULATION STUDIES COLLEGE OF DEVELOPMENT STUDIES ADDIS ABABA UNIVERSITY IN PARTIAL FULLFILMENT OF REQUIRMENTS FOR THE DEGREE OF MASTER OF SCIENCE POPULATION STUDIES.

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This is to certify that the thesis prepared by Selam Wondimagegne, entitled: ASSESSMENT CORRELATES OF MODERN CONTRACEPTIVE USE AMONG ADDIS ABABA UNIVERSITY REGULAR UNDER GRADUATE STUDENTS.and submitted in partial fulfillment of the requirements for the Degree of Master of Science in population study complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

Background: - Unintended pregnancies are major concern in developing countries including Ethiopia. Female university students face unintended pregnancies because most of them are sexually active and exposed to unprotected sporadic premarital sexual intercourse. Contraceptives are being increasingly used by unmarried young women to prevent unintended pregnancies following unprotected sexual intercourse. However, little is known about Contraception use among female students at higher education in Ethiopia.

Objectives: -The aim of this study was to assess the prevalence and factor that affect modern contraceptive use among female undergraduate students in Addis Ababa University.

Methods: - Institution based cross sectional descriptive study involving 633 undergraduate female students from Addis Ababa University was done. Study participants were selected using systematic random sampling technique. The data was entered and analysis in to SPSS version20. Different forms of analysis like descriptive statistics, cross tabulation and logistic regression were applied to present the results. Recoding of data was also done for some variables to fit them in to binary logistic regression model. Adequate time was spent on the analysis to ensure quality.

Result:- over all 42.3% of the students were sexually active. Of the total sexually active respondents 95.5% of them use contraception and the remaining 7.5% of the students never use contraception. Half of sexually active students practice sext before the age of 18 and 57.8% of sexually active students practice unsafe sexual behavior. The age of 20-24 years of age were 23% [OR=3.375 (1.008, 11.299)] more likely to use contraception and students those who were not practice induced abortion 68% [OR=0.320(0.042, 2.459)] more likely to use contraception. This shows that students who were not practice induced abortion were not significantly associated with contraception use.

Conclusion and Recommendation:-There is very high level of contraception use among sexually active female undergraduate students who had unprotected sexual intercourse or a students who were not using condom as a barrier method. This could be due to the fact that university students have relatively better information and access to the service. Therefore, it is highly recommended that the Federal Ministry of Health make regular contraceptive methods accessible for students in higher institutions.

Keywords: unintended pregnancy, contraception, sexually active

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LIST OF ACRONYMS

AAU = Addis Ababa University

AIDS = Acquired Immune Deficiency Syndrome

CSA= Central Statistics Agency

EDHS = Ethiopian Demographic and Health Survey

HIV = Human Immune Virus

IUD = Intra Uterine Devices

MDG = millennium developing goals

MMR = Maternal Mortality Ratio

OC = Oral Contraception

SPSS = Statistical Package for Social Sciences

STIs = Sexually Transmitted Infections

TFR= Total Fertility Rate

USA = United States of America

WHO = World Health Organization

CHAPTER ONE

1. Background of the Study

Modern contraceptives enableindividuals and couples to decide and attain their desired number of children, spacing and timing of their births (Creanga, et al. 2011). It is also a part of strategy to reduce poverty, maternal, infant and child mortality and empower women (ORC Marco, 2001 & CSA, 2000). Contraception is best way to control the rapidly and massively growing population. It also contributes to promote the health and welfare of the family and thus contribute effectively to the social development of a country.Effective use contraceptives can avoid unplanned or unwanted pregnancies, prevent unsafe abortions and help in spacing the births of their children which in turn benefits the health of mothers and their child (Both and Samuel, 2014).

Globally total fertility rate declined from 5 children per woman in the 1950s to 2.6 children per woman in 2011(WHO, 2012). This is the result of widespread use of modern contraception especially in developing countries. Studies have shown that in developing countries only about 9% of married women used any form of contraceptive. In 2011 globallycontraception use among reproductive age girls shows 62%and in less develop countries counts only 43%. This shows increased contraception use in less developed countries (Creanga , et al. 2011).

A study conducted in 13 countries shows that contraception's are cost effective health interventions because they are closely related to maternal health and infant health survival. The modern contraception is more than technical advance, it has caused a genuine "reproductive revolution" and is considered a "social vaccine". However the extent to which family planning program has succeeded in reaching all segments of the population varies between and within a country and it is safe to say that the need for contraception is not being adequately addressed among all segments of society, and so among the poor (Ahmed, et al. 2012).

In the world unplanned pregnancies amongst students at higher educational institutions every year continues to increase despite the high awareness and knowledge on regular modern contraceptives and emergency contraceptives among students in higher educational institutions (WHO, 2013 &Maja et al., 2004). Despite the immense contraceptive benefits for students in

higher educational institutions (Ersek, et al, 2011). There is no direct positive correlation between the universal awareness, knowledge and use of contraceptives which challenges global health efforts.

The poor utilization of contraceptives in tertiary institutions is associated with many interrelated factors ranging from personal to institutional setbacks (Hubacher et al.,2008). This eventually contributes to high unplanned pregnancy rates which is estimated to have contributed to about 8 to 30 million annual pregnancies worldwide (Adhikari, 2009). Global estimates have also shown that about 210 million pregnancies occur annually across the world. 75 million (or about 36%) of the 210 are unplanned or unwanted pregnancies (Singh,2010). Students between 18 and 24 years report the highest rates of unplanned pregnancies in the world's tertiary institutions (Esere, 2008 &Trieu, 2011).

Ethiopia is the second most populous nation in Africa after Nigeria. Ethiopia has been facing multitudes of challenges following rapid population growth including environmental degradation, chronic food insecurity, high maternal, and child mortality (ICF International. 2012& CSA, 2011). From 1995 to early 2000 the Total Fertility Rate (TFR) of Ethiopia is estimated 5.9 children per woman(ORC Marco, 2001 & CSA, 2000). In 2016 total fertility rate has declined to 4.6 children per woman (CSA & ICF, 2016). This diriment largely attributed to increased practice of modern contraceptive methods over the time, and improved educational status of women.

Majority of female students in Addis Ababa University fall between 15-29 age group. Most of them are not married but a large number of unintended pregnancies occur. Previous studies documented that 50%-92% of pregnancies among sexually active students were unintended (Melakamu, et al., 2010).Most of these pregnancies ended by induced abortion due to fear of family and drop out of school.

Statement of the Problem

In order to achieve the millennium development goals (MDG) family planning has an essential role. Contraception is important for maternal health improvement (FDR, 2011 & Caldwell, 1994). Safe delivery, anti natal, post natal care and family planning are the four core approach in order to reduce maternal death and safe mother hood in developing countries (Ahmed, et al. 2012).

Maternal mortality is unacceptably high. About 830 women die from pregnancy- or childbirth-related complications around the world every day. It was estimated that in 2015, roughly 303 000 women died during and following pregnancy and childbirth. Almost all of these deaths occurred in low-resource settings, and most could have been prevented (Alkema, 2016).

Every year throughout the world, the rate of unplanned pregnancies amongst students at higher educational institutions continues to increase. This is despite the availability of free contraceptives and emergency contraceptives offered by student health centers at highereducational institutions (Coetzee, 2015).Lack of awareness and knowledge on the use of contraceptives is associated with the failure of their utilization (MacPhail et al. 2007). The high rate of unplanned pregnancies caused multiple challenges for academic institutions across the world. These challenges relate to high dropout rates by students, serious financial losses for academic institutions and an increased drain on public sector funds (Vermaas 2010).

Youth in Ethiopia is defined as individuals between age group 15-29 years (CSA, 2005 & ORC Macro, 2006). Ethiopian youths face many sexual and reproductive health problems including sexual coercion, unintended pregnancies, abortion, sexually transmitted infections (STIs) including HIV/AIDS (Altankhuyagiin, et al. 2007).In Ethiopia the median age at first sexual intercourse and age at first marriage is18.22 years (CSA & ICF, 2016).

In Ethiopia, young people (aged 15–24) represented one of the country's largest groups, comprising about 35% of the population. To enhance the sexual and reproductive health and well-being of the young's population, Ethiopia had a national strategies and activities.Some of the strategies are delivery of all youth RHrelated interventions and policies by gender, age, marital status, and residence; addressing the immediate and long-term RH needs of young

people; and strengthening multicultural partnerships to respond to young women'sheightened vulnerability to sexual violence and nonconsensual sex(Shiferaw,et al.2014). Some of the activities are creatingawareness of sexual health, providing youth friendlyservices, increasing human resource capacity, explore new opportunities and expand multtisectorial coordination. However, most related interventions targets the general public as a result it do not directly respond to higher education institution students need andexpectation, making actual coverage of behavioralpromotion of healthy sexual behaviors through various methods including peer education, family planning information, counselling and method including emergency contraceptive methods and condom promotion and provision and abortion linkage service provided in youth friendly service. Currently each clinic has three nurses trained about youth friendly services(Mulu, et al. 2014).

Majority of female students in Addis Ababa University are between 18-23 age group. Most of them are not married but a large number of unintended pregnancies occur. Previous studies documented in Addis Ababa university that 50%-92% of pregnancies among sexually active university students were unintended (Melakamu, 2004 &Susheela, 2010).Most of these pregnancies ended by induced abortion due to fear of family and drop out of school.

Unmarried pregnant girl is considered as a shame in Ethiopia society (culture or tradition). This may be thrown out of home, drop out of school, and then being exposed to commercial sex workwith possibility of infecting HIV virus . Unintended pregnancy is a serious problem among young women's in Ethiopia. Several studies in Ethiopia have documented a high prevalence of unintended pregnancies in among young women (Nalenga, 2012). In order to avoid high rate of unintended pregnancies among university students there is low using of contra captive methods (Nalenga, 2012)

Unplanned pregnancies are the result of various factors, including a lack of knowledge about menstruation and pregnancy, a lack of access to and knowledge about how to use contraceptives, difficulties in using contraceptives because of partner's or family objections; contraceptive failure and sexual assault

Justification of the Study

There are few studies conducted on sexual activity among Addis Ababa university female students and the consequences of their risky sexual behavior. Additionally, little research has been done on contraception among Addis Ababa university female students in Ethiopia.

The study adds to the knowledge on the level of contraceptive users and factors affecting contraception among Addis Ababa University female students hence closing the conceptual gaps in students utilization of contraceptives. The studyfindings will contribute to future review and practices regarding female student's reproductive health, sexuality and family life. Investing in contraception is more cost effective than managing unplanned pregnancy. This study will serve as a basis for future research on female student's contraception use in Addis Ababa University.

The findings of this study will be shared with the teachers and Addis Ababa University for empowering girls by special attention for safe sexual practice, access and availability of contraception's. This hence contribute to devising Sexual and reproductive health programmes that will work ondecrease dropouts of school by un intended pregnancy , un safe abortion and sexual transmitted infections including HIV.

Limitations of the Study

The study target only regular undergraduate students, which will not representative of all university students, the findings therefore should be generalized or extrapolated with caution to other university student groups. Since this will be a cross-sectional study based on retrospective memory data collection, the possibility of memory recall bias or selective memory recall may have occurred. These could be negative impact on research findings. There could be incomplete questioner because of rising sensitive question. This may bring negative effect on the outcome of the findings.

Objective of the Study

1.1.1. GeneralObjective

The general objective of the study is to assess the prevalence and factor that affect modern contraceptive use among female undergraduate reproductive age girls in Addis Ababa University

1.4.2. Specific Objectives

1. To measure the prevalence of modern contraceptive use among female undergraduate students in Addis Ababa University.

2. To assess the social, demographic and economic factor that affect modern contraceptive use among female students in Addis Ababa University.

CHAPTER TWO

2. Literature Review

2.1. Fertility Theory of Contraception

According to conventional demographic theory, high fertility in the early stages of the demographic transition is the consequence of high desired family size. Couples want many children to assist with family enterprises such as farming and for security in old age. In addition, high child mortality leads parents to have additional children to protect against loss or to replace losses. Fertility decline occurs once rising levels of urbanization and education, changes in the economy, and declining mortality lead parents to desire a smaller number of births. To implement these desires, parents rely on contraception or abortion, and family planning programs in many countries accelerate their adoption (Easterlin, 1975 and Notestein, 1945).

2.2. Correlates of contraceptive use among female university students

A study in Wolaita Sodo University Students abortion was higher as compared to most local and other rates elsewhere. It amounted three times as high as the rate for the general population in Ethiopia. Even higher rates of abortion might be detected by use of more robust methods. Moreover, alarmingly higher proportions of abortions (50%) were performed or initiated under unsafe circumstances and three fourths of those who had abortion suffered one or more complications. Students who ever used alcohol, who were in their first year and those without natural science backgrounds had significantly higher risk of abortion as compared to their counter parts. Knowledge of students on legal issues of abortion was very low; very few students properly stated all the conditions for legal abortion in Ethiopia. Risky sexual behaviors were widespread and knowledge and practice of students on healthy reproductive health behavior, including contraception and condom use were found to be very low(Gelaye,et al. 2014).

A study conducted in Nigeria about condom utilization among university students. More than half 69.3% of the students reported not having a condom. Most reasons given were not sexually active at the moment, and the other reason for not using condom is not knowing condom is giving of free. In this study there are several factors for not using condom. Parent’s disapproval, religion barriers, fear of stigma, lack of knowledge of where to get it

free, low risk perception of HIV infection, unavailability of condom, low risk perception of being infected with STDs and HIV, partner's refusal, myths and misconception about condom, religion barrier, beliefs that its use will encourage promiscuity and extramarital affairs (Osonwa Kalu, et al 2013)

A study conducted in Bashir Dar university among regular students proportion of ever had sexual practice was 36.4%. In the present study, ever had multiple sex partners was 42.7% of the sexually active students. Having multiple sexual partners was 48.5% and 23.5% in males and females, respectively. Regards to condom use, 38% of the sexually active respondents had consistently used condom during sex. Regarding the reason for ever had multiple sexual partners, seeking sexual pleasure and the effect of long term relationship was the major reason in males and females, respectively(Mulu, et al. 2014).

2.3. InstitutionalFactor

Studies conducted at Jimma and Haramaya university students have ever had sexual intercourse 26.9%, 39.6% respectively. The mean age at first sexual intercourse was 17.7, 17.8years respectively. Falling in love, sexual curiosity and peer pressure were common reason for having had their first sexual intercourse. Three-fourth of adolescents starts sexual intercourse during secondary school. Lack of parental control, substance use, peer pressure, campus and outside environment were identified as predisposing factors. Students sexual initiation and associated factors is very important, because of the fact that university students are many in number, live away from their parents and free from parental control. In addition, some are subjected to wide spread substance use and peer-pressure that aggravate the problem. Unplanned sexual activity and pregnancy (Tura &Dingeta, 2012).

A study conducted in North Carolina at Charlotte university majority were<25 years of age. Nearly 65.3% of participants had heard of emergency contraception, only 13.5% reported ever using it. Seventy-eight percent of participants indicated they had ever had sexual intercourse resulting in vaginal penetration with a man. Sexually active and non-sexually active women did not differ with respect to race=ethnicity. However, a significantly higher proportion of non-sexually active women were younger, never married, and lived on campus compared with sexually active women (Huber, et al. 2009).

The study conducted on Addis Ababa university and unity university students (59.5%) of the total respondents have ever had sex in the past (35.1%) of them had pregnant so thereport that their pregnancy were unwanted when compared to the study 44.4%of studentshad sex which is less than Addis Ababa university and unity university the difference may be due to Seto Semero high school female students live with their parents which might had effect on sexual activities of Seto Semero high school female students (Asmare et al.2015)

2.4. Reproductive health related factor among university students

Reproductive health information/knowledge contributed to increased levels of past and intended condom use only indirectly by increasing psychosocial resources, particularly self-efficacy and positive attitudes, and by reducing risky sexual behaviors. The absence of a significant direct effect is consistent with Ethiopian studies that found little or no relationship between levels of health knowledge and safer sexual behaviors (Fantahun, et al. 1995). This affirms the view that information/knowledge alone is not sufficient to bring about behavioral change. Nonetheless, the significant indirect effects found support the need for continued provision of well-designed information/education on reproductive health for Ethiopian youth, even though such efforts may not necessarily produce the desired behavior directly but indirectly through their influence on proximal factors that determine behavior (Melakamu,et al. 2000).

A study shown in Enemay district east Gojam zone a study conducted on senior secondary school students indicated that 59.4% of students used condom during their last sexual engagement. This indicated that approximately 40% of the sexually active students did not take measures to prevent themselves from contracting STIs including HIV (Berhanu, et al 2015). However, the results also showed higher prevalence of condom use compared to the results of the Ethiopian Behavioral Surveillance Survey II, where only 43.1% (45.2% of males &37.3% of females) sexual active school youth had used condoms (MOH/HAPCO, et al., 2005). On the other hand Results indicated that 30.14% of the sexually experienced respondents had sex with a person other than their current sexual partner in the past 12 months. About 13.7% of the sexually experienced respondents had sex with two different

partners, while 4.1% reported having had sex with three different partners, and 2.1% reported doing so with more than three partners in the past 12 months (Berhanu,et al.,2015).

A study which is conducted in Addis Ababa university female undergraduate students only 29% of the sexually active students ever used condom during their first sexual practice, and nearly one third 31.2% of respondents used condom consistently in the last 12 months. The predominant reason mentioned for less use of condom were trusted their sexual partner and decreases sexual pleasure. Nearly half (45.4%) of the respondents reported having had two or more sexual partners in their life time.

2.5. Demographic and Socio Economic Characteristics.

A study conducted in Wachemo University, SNNPR, Ethiopia, showed that respondents who were age from 20-24 years old were 2 times more likely to use contraceptives. The mean age of sex at first sex was found to be 16.59. The main reasons for initiating first sex were related to personal desire peer pressure and rape, within marriage. From the total students 47.2% students were female sexually active (Adinew,et al.2017).

Different studies have identified such demographic factors as age of women, number of living children, desired family size and experience of child death as major factors that influence contraceptive use (Robe,et al. 1992). Contraceptive use is lowest among young women, reaches a peak among women in their thirties and declines among older women.This is indicative of a high desire for child bearing among young women, and a high growing interest of spacing births among women in their thirties. Percentage of users declines at older ages of reproduction due to the fact that older women are not at a high risk of pregnancy (Robey , et al. 1992).

Resent study shows in Nepal and South Africa (Benagiano, et al. 2007) that the lack of adequate knowledge and awareness of effective contraceptive use amongst higher educational female students, results in the non-utilization of contraceptives. This eventually contributes to high unplanned pregnancy rates. It is estimated that it contributes to about 8 to 30 million annual pregnancies worldwide (Rutstein, 2005 and Townsend JW. 2010) Approximately 210 million pregnancies occur annually across the world, of which 75 million (or about 36%) are unplanned or unwanted(FDRE family planning guide, 2011). International studies that reported that students between 18 and 24 years have one of the highest rates of

unplanned pregnancies. Lacking of effective knowledge concerning contraceptive use results in an increase in unplanned pregnancies (Rutstein, 2005& Townsend, 2010).

Transactional sex between men and women's common on college campuses where young female students have sex with older men for financial or material benefit (Shefer, et al. 2012). Similar study shows in Jigjiga University undergraduate students a considerable number of respondents reportedly engaged in sexual relation with older people for financial benefit. About 38.5% of female sexually experienced respondents had paid for sex at some point in their life.Material gifts and other gestures commonly serve as currency for exchange of transactional sex between older men with adequate money to purchase sex and young girls who sell sex (Mavhandu-Mudzusi,et al. 2016).

2.6.Conceptual framework

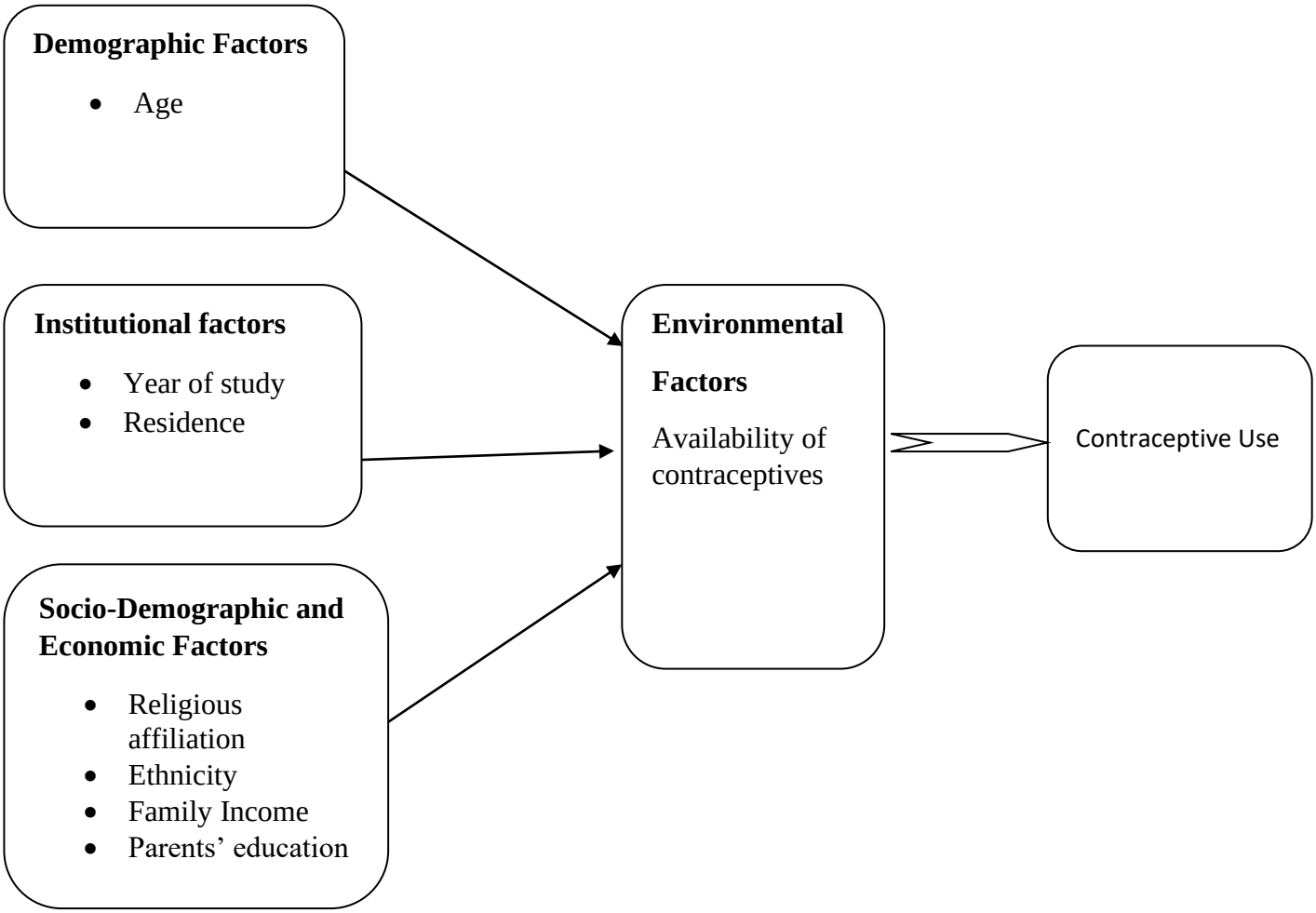

Figure 1: Conceptual frame work for the study of contraceptive use among female university studentsSource: developed by the author based on Literature Review.

CHAPTER THREE

3. Research Methodologies

3.1 Study area

The study was conducted in Addis Ababa University, which is the biggest and oldest governmental higher institution in Addis Ababa, Ethiopia. Currently, it runs several undergraduate and postgraduates programs.

3.2 Study period

The data were collected between March -May 2019. To assess the prevalence and factor that affect modern contraceptive use among female undergraduate girls in Addis Ababa University.

3.3 Study population

Based on the data obtained from the main office of registrar of AAU in 2018, there were a total of about 15,310 student enrolled in regular under graduate program attending one of the 70 programs. Female students constitute 37.4% of the total undergraduate students. The students are enrolled from all regions of the country with cultural and language diversity. Moreover, there are 7 students clinic and 2 counseling center.

The study population were regular female undergraduate students in Addis Ababa University who fulfilled only the inclusion criteria.

3.4 Sample size determination and sampling design

Sample size determination usually necessary to get information of larger groups' opinion survey by attempting to gather opinions that are likely to be representative. Systematic sampling method Systematic random sampling technique was used. Systematic random sampling is used to select large samples. The systematic random sampling is calculated as below.A single proportion (or one-sample) binomial test was used to compare a proportion of responses or values in a sample of data to a proportion in the population. A design effect was 1.5 and adding 10% non-respondent.

The sample size was calculated using the formula by (Fisher,2013). Which is

n =minimum sample size of the study subject

Z =standard normal distribution curve /value for the 95% Confidence interval (1.96)

p = population of ever use of contraception

d = the margin of error taken (0.05) or 5%

$$n=\frac{P(1-P)Z^2}{d^2}$$

The sample size was determined using a single population proportion formula assuming; 95% level of confidence previous estimate contraceptive use among female students in Addis Ababa University of 50 % , a design effect of 1.5 and non-response of 10%.

Def= 384*1.5 =576. After considering 10% non- response rate, the final sample size= 633

Systematic random sampling = $\frac{\text{Total number of population}}{\text{Sample size}} = \frac{5741}{633} = 9$

Table: 1- Schematic presentation of sampling procedure among undergraduate female students of Addis Ababa University, 2018

Types of Target population	**No. of Target population**	**Representative Sample**	**Percentage out of the total (%)**
College of health science and medicine	1,181	(1,181/5662)*633 = **132**	20.8%
College of Natural science and computational sciences	727	(727/5741)*633=81	12.7%
Institute of Technology And engineering	1,383	(1383/5741)*633 =**155**	24.4%
College of business and economics	797	(797/5741)*633=89	13.9%
College of social sciences and humanity	1349	(1349/5741)*633=151	23.9%
SB College of Performing and Visual Arts	225	(225/5741)*633= 25	4%
Total	**5662**	633	**100**

This figure show that the target population distribution by the college of female regular undergraduate students and the present that account.

3.5 Inclusion criteria: Regular female undergraduate students who agreed to fill the questioner in Addis Ababa University.

3.6. Exclusion criteria: Extension students, students who can't fill the questioner, male students and those who were not available during the time of questionnaires distribution.

3.7 Study variable

Dependent variable: the dependent variable were modern contraceptive use.

Independent variable: the independent variable in this study were categorized in to three groups which were demographic, socio-economic and institutional. The demographic variable were age and the socio economic variable were year of study, religious affiliations, ethnicity, family income and parent's education. And the last categorical variable was institutional which were year of study and residency.

3.8 Research design

Mixed method approach is used also, both quantitative and qualitative data was entered and analyzed using SPSS version 20. The results was presented using texts and tables. Different forms of analysis like descriptive statistics, cross tabulation and logistic regression were applied to present the results. Recoding of data was also done for some variables to fit them in to binary logistic regression model. Adequate time was spent on the analysis to ensure quality. Simple descriptive statistics and logistic regression model (multivariate analysis) was also be used to present frequencies and explore association between independent variables and dependent variables, respectively.

3.9. Data collection procedure and methods

The questionnaire was prepared in English after reviewing literature of similar surveys that have been carried out previously, including Ethiopian Demographic Health Survey (EDHS). Well prepared English questionnaire was translated to Amharic.

Four female students was recruited to conduct the data collection. They was received a training on the objective of the study, the questionnaire, confidentiality of information, completeness of data and selection of study subjects.

In order to check the clarity, consistency, skipping pattern and order of the questions, the questionnaire was pre-tested in selected Addis Ababa university Veterinary medicine and agriculture compass among 31 students (5% the total sample size). Data was collected using self-administered question. It was done when the students are in the class room. There will be routine supervision and checking of the questionnaire by the supervisors, for its completeness. The collected data was reviewed and checked for completeness before data entry.

3.10. Data entry and analysis

The questioner was coded then entered and analyses using SPSS version 20. The results was presented using texts and tables. Different forms of analysis like descriptive statistics, cross tabulation and logistic regression were applied to present the results. Recoding of data was also done for some variables to fit them in to binary logistic regression model. Adequate time was spent on the analysis to ensure quality. Simple descriptive statistics and logistic regression model (multivariate analysis) was also be used to present frequencies and explore association between independent variables and dependent variables, respectively.

3.11. Sampling procedure

According to Addis Ababa university registration there are 7 department. Systematically 633 students were selected and Sample size were distributed for each representative departments also those Divide the class rooms in year of the study. All eligible female students were selected. Inform them about the sensitivity of the question and to fill the questioner in private. Every nine interval the questioners was distributed. They returned the questioner any time when they complete or they don't fill like answering the questioner.

3.12Ethical clearance

Ethical clearance was obtained from Institutional review board (IRB) of College of development studies centers for population studies. Before administration of questionnaire, verbal consent was obtained. The respondents was informed about the objective and purpose of the study and informed consent was collected from each respondents also they was informed about their right not to participate in the study and interruption at any time.

The name of the study subject not listed on questionnaire and more personal secret was closed (confidentiality and privacy were be kept). It had also an explanation of the study as did not

incurred any risks because of their involvement, there were no personal benefits to their participation in this study and the information they provided can contribute to the future studies

Operational Definitions

Sexual active:-Ever had heterosexual intercourse.

Ever users: - students who have used contraceptive some times in the past but have discontinued during the time of the survey.

Ever use contraception: -Use of contraceptives at least once anytime before the survey. **Unwanted pregnancy: -** is pregnancy that has occurred after a woman already had the desired number of children and she doesn't want to have any more children.

Modern contraceptive Methods:- female sterilization, Male sterilization, the pill, the intrauterine device (IUD), injectable, implants, condom and diaphragm/ foam/jelly

CHAPTER FOUR

3. 4.1. RESULT

Socio demographic characteristics of the respondents

Full response was obtained from a total of 633 students making the response rate 95%. As shown in Table 3 the age of study participants ranged from a minimum of 15 years to a maximum of 30 years. Majority of the students are between the age of 20-24(52.7 %) and 35.7% of the students were between the age of 15-19 years of age. Most of the respondents are II year students about 43.3% followed by I year female regular students which is 17.4% minimal amount of the students were III and IV each represent 19 % of respondent's.

The family educational status respondent shows16.1 % of fathers werenot educated 44.7% of them attended more than secondary education and followed by 20.5% who is attended secondary school. The response of the mother's educational status shows 20.4 % were not educated and 30.3% of the respondent mother attended secondary school 32.2% of the educated mother accounts more than secondary educational status.

Majority of the respondents, 52.8%, were followers of Orthodox followed by protestant which account for16.4% and Muslim follower's accounts 14.8%. From the total respondent one third of the respondents are Amhara (38.4%) of students are Amhara second most respondents were Oromo 20.7%. at the time of survey 58.5% of the respondent.

The family monthly income of their family 38.9% of the students has 3000-5999minority of the student's family 17.2% monthly incomes were less than 3000birr but the majority of the student's family reported more than 9000 birr per month**.** With respect to current place of residence about 85.9% of the participants reported that they live inside the university dormitory and the other 14.1 % live outside the campus.

Table-2 Socio-demographic and academic characteristics among female undergraduate university students at AAU

Characteristics	Frequency	Percent
Age		
15-19	230	36.3
20-24	314	48.0
Above 25	99	15.6
Year of study		
I Year	110	17.4
II Year	274	43.3
III Year	126	19.9
IV Year and above	123	19.4
Level of education status of the father		
Non educated	102	16.1
Primary school(1-8)	119	18.8
Secondary school (9-12)	129	20.4
More than secondary	283	44.7
Maternal educational status		
Non educated	129	20.4
Primary school (1-8)	108	17.1
Secondary school (9-12)	192	30.3
More than secondary	204	32.2
Religion		
Orthodox Christian	334	52.8
Muslim	94	14.8
Protestant	104	16.4
Catholic	61	9.6
Other	40	6.3
Ethnicity		
Oromo	128	20.2
Amhara	243	38.4
Tigre	85	13.4
Gurage	94	14.8
Other	83	13.1
Family monthly income		
From 1000-2999 birr	109	17.2
3000-5999 birr	252	39.8
6000-8999 birr	77	12.2
9000 and above	195	30.8
Current residence		
In campus	544	85.9
Out of campus	89	14.1
Sexual activity status		
Sexually active	268	42.3
Sexually not active	365	57.6

Results of sexual and RH behaviors

At the time of the survey about 268 (42.3%) respondents have ever had sex. Of those who are sexually active, about 50.7 % started sex before the age of 18 and 49.3 % started sex after 18 years of age. As indicated in (table 4) 57.8% of sexually active respondent's experience unsafe sexual practice and 35.1% of respondents replied that they have more than two sexual partner also 64.9% of students have only one sexual partner. The respondents claimed to receive money and material as return of sex 25.7% and 16.8% the students experience STI's which is confirmed by health professional. A total of 70 (26.1%) respondents replied that they had been pregnant at least once previously (Table 4).

From the history of pregnancy 85.7% of students who were pregnant reported their pregnancy was unwanted, 10.0% of them reported the reason of pregnancy were raped, 38.3% forget to take contraception is the majority of respondent reason and 28.3% of respondents pressure of partner not to use contraception. Table 4 shows that 52 (74.3%) students were practiced induced abortions one or more times.

The respondents response 41.7% of the students is not used the method they chose the The students respond for the question of all contraception prevent sexually transmitted infections (STIs) 26.5% respond yes but the rest of the students' it doesn't prevent STIs.

Characteristics	Frequency	Percent
Ever Used Of Modern Contraception	177	65.7
Yes	91	33.8
No		
Age At First Sexual Intercourse		
Before 18 Years	136	50.7
Above 18 years	132	49.3
Unprotected Sexual Activity		
Yes	155	57.8
No	113	42.2
Number Sexual Partner In 12 Month		
Only one	174	64.9
2 And Above	94	35.1
Sex In Return Of Money Or Material		
Yes	69	25.7
No	199	74.3
STIs That Is Confirmed By Health Professional		
Yes	45	16.7
No	223	83.2

Ever Been Pregnant		
Yes	70	26.1
No	198	73.9
Intended Pregnancy (Wanted Pregnancy)		
Yes	10	14.3
No	60	85.7
Ever Given Birth		
Yes	22	31.4
No	48	68.6
Induced Abortion		
Yes	48	68.6
No	22	31.4
Using Of The Method You Choice		
Yes	158	25.0
No	110	17.4
Is All Contraception's Prevent Sexually Transmitted Infection (STIs)	71	26.5
Yes	197	73.5
No		

Table: 3- sexual and RH related behavior of contraception use

Bivariate Analysis of Socio-Demographic characters

The major socio-economic, demographic characteristics of the respondents (students) are presented in Table 5. Results of descriptive statistics showed 43.4% of students from 20-24

years of age who were used contraceptives.Likewise, 28.3% of students who were above 25 years of age used contraceptive methods. About 38.3% of students who were 15-19 years of age were used contraceptive methods. The prevalence of contraceptive use was higher among the age group of 20-24 years of age students (43.4%) as compared to those above 25 years of age students (28.3%). On the other hand, 66.7% of the third year students were used contraceptive methods; 24.5% of second year students used contraceptive methods, 33.3% of the students who's fourth and above years were used contraceptive methods.Among students third year students 66.7 percent used contraceptive methods compared to second year students 33.3%.

The proportion of student's father whowereTertiary educated, 44.2% were used contraceptives. Likewise, 33.3% student's father who were secondary educated and 37.3% of the student's father who used contraception were none educated. Similarly, 42.6% of the students mother who were Tertiary educated were used contraceptive methods; 35.2% of students mother whose Primary education wereused contraceptive methods. Similar percentage of Non educated and Secondary educated (38.8%,38.0%) students mother used contraception. Higher prevalence of contraception use among students both parent who were Tertiary educated (44.2 and 42.6%).

The percentage of students who used contraceptive methods was higher among those who were followers of the catholic (68.9%) followed by orthodox followers (64.4%). The lowest percentage (42.6%) of used contraceptive methods was observed among students who were followers of Muslim, and protestant followers (59.6%). The proportion of contraception use students who had different ethnic were different status on the use of contraceptives. The highest proportion (61.2%) of students used contraceptives was observed in students who belongs to Tigre ethnicity groups followed by Gurage (44.7%) and the least proportion (26.6%) of studentsused contraceptive methods was observed in Oromo ethnicity , followed by Amhara ethnicity (36.6%). There appeared to be some variation in the proportion of Students contraception use in the different ethnic groups of Ethiopia.

The monthly income of students family who used contraceptive methods was higher among those students who were earn Above9000 (53.8%) followed by those students family earned 1000-2999 (45.9%). The lowest percentage (26.0%) of used contraceptive methods was

observed among female students who were earn 6000-8999birr per month, 3000-5999 per month income of the student's family (29.0%).

The proportion of contraceptive use differed by current residence. Among the students who resided in campus, 40.6% were used contraceptives and out of campus30.3% students were users of contraceptives. The prevalence of contraceptive use was higher among students who were residing in campus (40.6%) as compared to thoseout campus students (30.3%).

Table: 4bivariate analyses Socio- demographic, economic and factors.

Attribute	**Total**	**Ever use of Contraceptive**	
Age Of The Students		**Yes**	**No**
15-19 years	230	88(38.3%)	142(61.7%)
20-24 years	304	132(43.4%)	172(56.6%)
Above 25 years	99	28(28.3%)	71(71.7%)
Year Of Study			
I year	110	56(50.9%)	54(49.1%)
II year	274	67(24.5%)	207(75.5%)
III year	126	84(66.7%)	42(33.3%)
IV and above	123	41(33.3%)	82(66.7%)
Father Educational Level			
Non educated	108	38(37.3%)	64(62.7%)
Primary education	119	42(35.3%)	77(64.7%)
Secondary education	129	43(33.3%)	86(66.7%)
Tertiary education	283	125(44.2%)	158(55.8%)
Maternal Educational Level			
Non educated	129	50(38.8%)	79(61.2%)
Primary education	108	38(35.2%)	70(15.2%)
Secondary education	192	73(38.0%)	119(62.0%)
Tertiary education	204	87(42.6%)	117(57.2%)
Religion			
Orthodox	374	241(64.4%)	133(35.6%)
Muslim	94	40(42.6%)	54(57.4%)
Protestant	104	62(59.6%)	42(40.4%)
Catholic	61	42(68.9%)	19(31.1%)
Ethnicity			
Oromo	128	34(26.6%)	94(73.4%)
Amara	243	89(36.6%)	154(63.4)
Tigre	85	52(61.2%)	33(38.8%)
Gurage	94	42(44.7%)	52(55.3%)
Other	83	31(37.3%)	52(62.7%)
Monthly Family Income			
1000-2999	109	50(45.9%)	59(54.1%)
3000-5999	252	73(29.0%)	179(71.0%)
6000-8999	77	20(26.0%)	57(74.0%)
Above9000	195	105(53.8%)	90(46.2%)

Current Residence			
In campus	544	221(40.6%)	323 (59.4%)
Out campus	89	27(30.3%)	62(69.7%)

Bivariate Analysis of Sexual and RH Behavior

Out of the 633 undergraduate female students, 268 (42.3%) of the students were sexually active. Among sexually active students, 92.5% of them have ever used contraception while 7.5% of sexually active students haven't been used contraception. Students of those engage in sexual activity before age 18, 93.3% were use contraceptives while the remaining 6.6% students were not used contraceptives at the time of the survey. There were slightly lower percentage (91.6%) of students engaged in sexual activity after the age of 18.

The percentage of students who used contraceptive methods was higher among those who were not experience unsafe sexual practice (93.4%). The same is also true for students who experience unsafe sexual practice (92.1%).The students who had multiple sexual partner showed that 95.6% used contraceptives. Likewise, 90.8%of studentswho had only one sexual partner used contraceptive methods.Moreover, students who were used sex as a return of money or material were 98.7% respondents used of contraceptives. Among students who were not used sex as a return of money or material 90% were used contraception.

From sexually active students who were experience STIs 95% of studentswere used contraceptive methods. The remaining4.4%female students were not used of contraceptives. Among sexually active female students who were pregnant, 94.2% used contraception while the remaining 5.7% of students who were pregnant haven't used contraception.

The proportion of students who used contraceptive methods was 96.6%among students who had unwanted pregnancy. The remaining 3.3% of students' unwanted pregnancy were not used contraception. On the hand the higher present of students who were given birth 95.6%were used contraceptive methods while 91.6% of students were not given birth used contraceptive. Among students who were experience induced abortion 95.6% used contraceptive methods. Likewise, 72.7%of students who were not experience induced abortion used contraceptive methods.The highest percentage 96.2% of students who were used the method of they choose contraception. There were lower percentage of students who were not used the method of they contraceptionchoose 87.2 were used contraception.

The percentage of students who used contraceptive methods was higher among those students who werethose all contraception were not prevent STIs respondents 95.4. Lower percentage 84.5of using contraceptive methods was observed among students who respond all contraception prevents STIs.

Table 5:- Bivariate Analysis of Sexual and RH Behavior

Attribute	**Total**	**Ever use of**	**Contraceptive**
Before 18	136	127(93.3%)	9(6.6%)
Above 18	132	121(91.6%)	11(8.3%)
Unsafe Sexual Practice			
Yes	177	163(92.1%)	14(7.9%)
No	91	85(93.4%)	6(6.6%)
Number Sexual Partner			
Only 1	174	158(90.8%)	16(9.1%)
2 and above	93	89(95.6%)	4(4.3%)
Sex For Money Or Material			
Yes	78	77(98.7%)	1(1.4%)
No	190	171(90.0%)	19(10.0%)
Ever Had STI's			
Yes	45	43(95%)	2(4.4%)
No	223	205(91.9%)	18(80%)
Ever Been Pregnant			
Yes	70	66(94.2%)	4(5.7%)
No	198	205(91.9%)	16(8.0%)
Un Intended Pregnancy			
Yes	60	58(96.6%)	2(3.3%)
No	10	8(80%)	2(20%)
Ever Give Birth			
Yes	22	20(90.9%)	2(9.0%)
No	48	44(91.6%)	4(8.3%)
Experience Of Induce Abortion			
Yes	48	46(95.6%)	2(4.1%)
No	22	16(72.7%)	6(27.2%)
Ever Use Of The One You Choice			
Yes	158	152(96.2%)	6(3.7%)
No	110	96(87.2%)	14(12.7.%)
All Contraception Prevent STI's			
Yes	71	60(84.5%)	11(15.4%)
No	197	188(95.4%)	9(4.5%)

Results of Logistic Regression Analysis

Odds ratio (OR) and 95% confidence interval (CI) of contraceptive use were estimated by logistic regression analysis. The results of the logistic regression analysis between contraceptive use and different socio-economic and demographic factors shows that

student's age, religion, ethnicity, family income and current place of residence had significantly associated with contraceptive use.

The model revealed that students in the age group of 20-24 years of age were 23.7%(OR=3.375) more likely to use contraceptives compared to the students in the age group of 15 – 19. The result was contraceptives remained to be significantly associated (P<0.001). Students who studied in the third year had 30% (OR=4.000) more likely to use contraceptive method relative to fourth year students.Hawever students who ere study in the second year had 35.3%(OR=0.647) less likely to use contraceptive method as compared with fourth year students.

There is no statistically significant deference is use of contraception among students level of father education. Unlike this, there is rather in contraception use in maternal education. Students those mother attend secondary education is 55.7% (OR=6.570) more likely to use modern contraception compared to those mothers were not educated. The effect is statistically significant (p<0.05). It is surprise that there is no statically sign cant variable is observed students whose mother altered primary and higher education compared to those tertiary education.

Students who were followers of Protestant religion were 64.5%(OR=1.645) more likely to practice contraception compared to those students who were followers of Orthodox religion. Althoh Student's who were followers of catholic religion were 21% (OR=1.208) more likely to practice contraception and followers of Muslim religion were 37.1% (OR=1.371). more likely to use contraception compared to those students who were followers of Orthodox religion, protrstant is significante assocciation (p<0.05).

The students who were Amhara ethnic groups were 60% (OR=1.598) more likely to use contraception compared Oromo ethnic groups. Students who were Tigre ethic groups 35.7% (OR=4.357) more likely to use contraception compared to Oromo ethnic groups. The result for tigre and gurage ethnic groups shows staticaly significant (P<0.001, P<0.01) respectively.

Students those who were family income on the range of 3000 – 5999 and 6000 -9000 were 51.9%(OR=0.481) and 58.6% (OR=0.414) less likely to use contraceptive compared to students who where their family income were between 1000 to 3000. Students family income turn out to be marginally significant (P<0.01,P<0.01).

Students who resided out of campus were 51.1% (OR=0.489) less likely to use contraception method compared to students who resided in campus. Students who were resided in campus study also had significant effect on contraception use associated (P<0.01)

Student who had two and more sexual partner were 49.1% (OR= 1.491) more likely use contraception compared to students who had only one sexual partner. The students who were practice sex for money or material 75.5% (OR=8.556) more likely to use contraception compare to students not practice sex as a return of money or material. In the study practice sex for money or material has a significant effect on contraception use (p<0.05).

From pregnant students those who were not practice induced abortion 68% (OR=0.320) more likely to use contraception. To those who were use the method of their choice. The choice of the method and contraception use is significant effect (p<0.01).

Students those who were answered not all contraception prevent STI's 19.1 (OR=2.911) more likely to use contraception compared to those who do not know contraception's prevent STI,s. The prevention of STI.s knowledge significantly associated on contraception use (p<0.05).

Table: 6- logistic regression of socio- demographic characters predictors of contraceptive use among Addis Ababa university female undergraduate students.

Variable With Category	Coefficient	Std. Err.	p-value	Odds Ratio	95% C.I	
Age Of The Students					**Upper**	**Lower**
15-19 years (Ref.)						
20-24 years	1.216	0.616	0.048*	3.375	1.008	11.299
Above 25 years	-0.894	0.549	0.103	0.409	0.140	1.199
Year Of Study						
I year	0.730	0.270	0.007*	2.074	1.222	3.522
II year	-0.435	0.237	0.067	0.647	0.407	1.031
III year	1.386	0.269	0.000***	4.000	2.361	6.775
IV and above (Ref.)						
Father Educational Level						
Primary education (Ref.)						
Secondary education	-0.087	0.268	0.745	0.917	0.542	1.549
More than secondary	0.372	0.226	0.100	1.450	0.931	2.259
Non educated	0.085	0.281	0.745	1.089	0.628	1.887

Maternal Educational						
Non educated (Ref.)						
Primary education	0.824	0.701	0.239	2.280	0.578	9.000
Secondary education	1.883	0.803	0.019*	6.570	1.362	31.702
More than secondary	0.959	0.556	0.085	2.610	0.878	7.763
Religion						
Orthodox (Ref.)						
Muslim	0.316	0.273	0.247	1.371	0.803	2.341
Protestant	0.498	0.210	0.018*	1.645	1.090	2.481
Catholic	0.189	0.267	0.479	1.208	0.716	2.038
Ethnicity						
Oromo (Ref.)						
Amara	0.469	0.240	0.051	1.598	1.598	0.997
Tigre	1.472	0.299	0.000***	4.357	4.357	2.423
SNNP	0.803	0.288	0.005**	2.233	2.233	1.269
Other	0.500	0.303	0.099	1.648	1.648	0.911
Monthly Family Income						
1000-2999(Ref.)						
3000-5999	-0.731	0.237	0.002**	0.481	0.302	0.766
6000-8999	-0.882	0.323	0.006**	0.414	0.220	0.780
Above9000	0.320	0.240	0.183	1.377	0.860	2.203
Current Residence						
In campus (Ref.)						
out campus	-0.716	0.240	0.003**	0.489	0.305	0.783

Table: 7- logistic regression sexual and RH behavior related predictors of contraceptive use among Addis Ababa university female undergraduate students.

Variable With Category	Coefficient	Std. Err.	p-value	Odds Ratio	95% C.I	
Age At First Sexual Intercourse					**Upper**	**Lower**
Before 18 (Ref.)						
Above 18	-0.243	0.465	0.601	0.784	0.315	1.951
Unsafe Sexual Practice						
Yes (Ref.)						
No	0.196	0.506	0.698	1.217	0.451	3.280
Number Sexual Partner						
Only 1(Ref.)						
2 and above	0.400	0.486	0.411	1.491	0.575	3.865
Sex For Money Or Material						
Yes	2.147	1.035	0.038*	8.556	1.125	65.064
No (Ref.)						
Ever Had STI's						
Yes	0.635	0.764	0.406	1.888	0.422	8.439
No (Ref.)						

	Ever Been Pregnant						
	Yes	0.372	0.577	0.519	1.451	0.468	4.496
	No (Ref.)						
	Un Intended Pregnancy						
	Yes	-1.981	1.069	0.064	0.138	0.017	1.120
	No (Ref.)						
	Ever Give Birth						
	Yes	-0.788	1.036	0.447	0.455	0.060	3.461
	No (Ref.)						
	Experience Of Induce Abortion						
	Yes (Ref.)						
	No	-1.139	1.040	0.273	0.320	0.042	2.459
	Ever Use Of The One You						
	Yes	-1.307	.505	0.010*	0.271	0.101	0.728
	No						
	All Contraception Prevent STI's						
	No	1.068	0.544	0.049*	2.911	1.002	8.452
	Yes						

Reference *=p-value less than 0.05(significant)

** =p-value less than 0.01(significant)

***=p-value less than 0.001(significant)

Qualitative Results

Result for qualitative data the following themes were identified in the data as specific concerns that young under graduate girls suggested as barriers for their not seeking or using RH services;

- ❖ Fear
- ❖ Misconception

Fear

During the FGD most of the respondents said they have developed fear on the contraceptive side effect and cause of infection.

Based on the checklist that was developed to guide the discussion, relevant information was obtained. One group discussions were held, participants were group of undergraduate 5 girls involved different educational status groups. They discussed about why they are not using modern contraceptive. Most

of the participants explained that they know about Modern contraceptive. They said that they have heard of the method from different sources including via friends, relatives, health institutions, health professionals and radio.

A 26 years old mother said “I heard about the “Loop” (IUCD), for example I am using it from the last two years”.

A 20 years old women also added information on the use of modern contraceptive. She said “I have heard about IUCD but I fear to use it because those who are using IUCD have severe bleeding and may go up in to the uterus”. Another 24 years old female participant added that “it is good to use long acting method but, I fear that this long acting method could be make me infertile or “mehan” and also my friends told me that sometimes it may cause infection and back pain. So, that I couldn’t prefer the method.”

Fear of possible side effects

One reason not to use contraceptives was fear of possible side effects. One participant, in response to the question “What do you know about contraceptive methods?” said: “I know nothing. I only know that they are harmful. For instance, I have heard that oral contraceptives may lead to the development of cysts.”

Misconception

The majority of participants raise important misconception about the use of longacting including its side effects, such as bleeding, infection, infertility etc., and thus, they are not using the method. A 24 years old lady using Depo said that “after I used Depo I had abdominal pain and back ache for some time and no menstruation so she mention that she have a fear of infertility. Fear and concern were major barriers to the use of contraceptives. The most important concern mentioned by the participants was the fear of infertility caused by a particular method. In many cases, this was the main reason preventing them from using contraception.

Fear of infertility

Some participants believed that contraceptive methods led to infertility.”

CHAPTER FIVE

5. DISCUSSION

5.1 Discussion on Major Finding of the Study

This chapter will discuss the findings of the study and relate them to review of literature, conclusions and recommendations. This study has assessed the proportion of contraception use among undergraduate female university students.

In this study from the total undergraduate students 42.3% of the students was sexually active and they have a history of sex in the privies year. There is a similar result is found an In Wachemo University, SNNPR that 42.4% were, sexually active and of whom more than two third 70% had history of sex in the previous one year(Berhanu, et al. 2015).However, this figure is inconsistent with the report that came out of a study doneBahir Dar university which found that 36.4% of students were sexually active(Mulu, et al. 2014). This difference may be due to cultural back ground and regional location of the study subject that might affect disclosure of sexual activity.

Regarding to contraception use from the total of sexually active 42.3% students only 65.7% of students use any kind of contraception. This finding is in agreement with the study conducted at Wachemo University from sexually active students which is 62.6% were using any type of contraception(Bereket, 2017).In this students Students who resided out of campus were less likely to use contraception method compared to students who resided in campus. Similar result found inNorth Carolina at Charlotte university significantly higher proportion of contraception use among women were younger, never married, and lived on campus compared with sexually active women compared to students who were lived out campus (Huber, et al. 2009). This result shows the parental follow up and guidance has a high contribution for contraception use.

In this study age has a significant effect and 3.3 times more likely to use contraceptives compared to the students in the age group of 15 – 19.In Wachemo University, SNNPR, Ethiopia, respondents who were age from 20-24 years old were 2 times more likely to use contraceptives(Bereket, 2017). In this study among the respondents of sexually active students, 50.7% of them have had their first sexual intercourse at less than18 years of age. Even though there is no significant effect on contraceptive use it has high proportion as compared with Enemay district, East Gojjam, 40.6% (Berhanu, et al. 2015)

In this study having multiple sexual partners in the last twelve month, from the sexually active students 28.6% of them had two or more sexual partner in the last twelve month. This result has no significant association between contraception use however there is high proportion compared to the result of the study conducted at Enemay district, East Gojjam, senior secondary school students shows 13.7% were had multiple sexual partner (Berhanu,et al.,2015).

The result of this study shows that students who practice sex as a return of money or material is significantly associated with contraception use. Also 25.7% students waspractice sex as a return of money or material .this proportion is lower as compared to the result of a study conducted on Jigjiga University under graduate students 38.5% (Mavhandu-Mudzusi, et al. 2016). From the total of 70 pregnancies, unintended pregnancy accounts 85.7% even though there is no association between unintended pregnancy and contraception use there is enormously high as compared to a study which was conducted in North West Ethiopia 16% on university students.

In this study we also found that the most common reasons for not using any contraceptive methods were fear of side effects and misconception this is consistent with study done in Wachemo University the most common reasons for not using any contraceptive methods were fear of side effects and religious beliefs. This shows fear of side effect is similar problem which is menschen in both of the study (Bereket, 2017).

CHAPTER SIX

6. Conclusion and Recommendation

6.1. Conclusion

This study found that 42.3% of respondents sexually active and more than half of sexually active students do not use contraceptive methods. The main reason that respondents mentioned for not intended to use were fear of possible side effects, misconception , and lack of knowledge. The study showed that condom was the most used contraception method. Even though condom is most frequently used there is STIs exposure which is confirmed by health professional. This is due to non-users of condom and not using condom effectively.

There High number of students start sexual intercourse in early age which is less than18 years of age.There is very high rate of unintended pregnancies and induced abortion among sexually active female Addis Ababa university students.Some of students has experience a sexually transmitted infection which is confirmed by health professional this shows students sexual practice is very much in danger. Students who lives in campus highly practice of contraception use compared to who lived out of campus that is due to less sexual exposure because of family guidance and protection.

6.2 Recommendation

Health providers particularly working in university clinic should give detail information about the contraceptive methods; possible side effects since respondents in this study mentioned that reason for not intended to use contraceptive method in the future.

The government and NGO`s should work on the area of disseminating reproductive health information by Establishing and promoting sexual andreproductive clubs at schools in order to increase awareness and knowledge on contraceptive methods and enhance discussion with friends which has positive impact on contraceptive use

A considerable number of respondents reportedly engaged in sexual relation with older people for financial benefit. This calls for health the initiation of programmes to financially or nutritionally support the very poor students in order to decrease student’s sexual engagement for money and material.

Since the study targeted only regular undergraduate students, and was not a truly representative of all groups of university students, this, calls for future studies to consider including other groups of students for better understand the prevalence of contraception use on college campuses in Ethiopia.

Addis Ababa university total regular female students divided by year of study and department

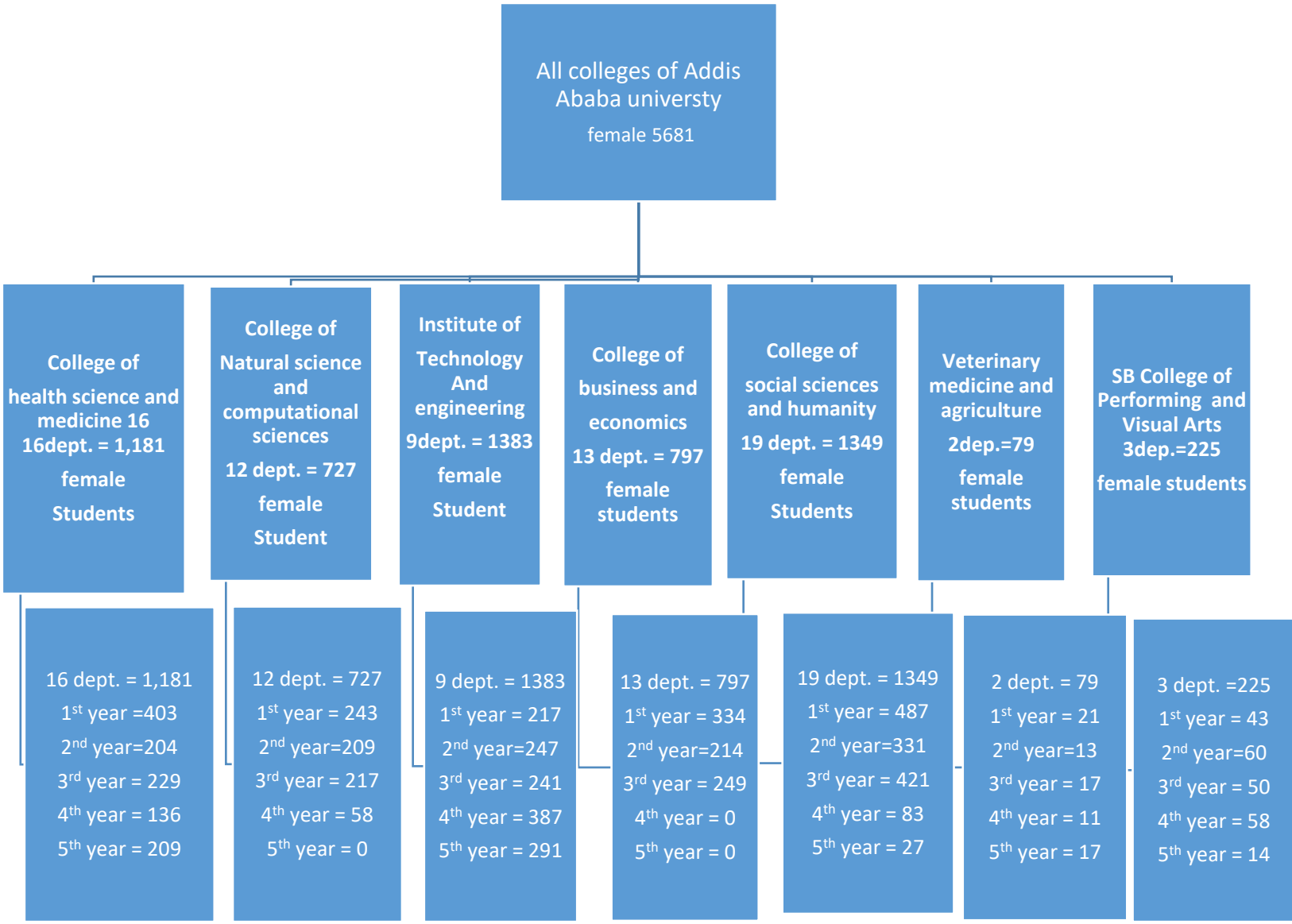

Figure 2: Schematic presentation of sampling procedure among undergraduate female students of Addis Ababa University, June, 2019

Probability Proportional to Size (PPS) allocation first to departments and then to year of study Random Sampling (SRS) there will be used lottery method to identify female students to include in the study

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ANNEX I

ADDIS ABABA UNIVERSITY

COLLEGE OF DEVELOPMENT STUDIES

INSTITUTE OF POPULATION STUDIES

Information sheet

Instruction; Read the statement to the respondents

Greeting.

My name is Selam Wondimagegne I am working in a research team (project), which is conducted by Addis Ababa University College of development studies Institute of population studies. The main purpose of this study is to assess factor affecting modern contraceptive use in Addis Ababa University among undergraduate female students of Addis Ababa University that will bring evidence based policy making and improvement on appropriate use of service. We are inviting female students to contribute to this study. So I would like to fill in some questions about modern contraceptive. Participation in this survey is voluntary, and if you should come to any question you don't want to answer, you can go to the next question; or you can stop filling the questioner. However, we hope you will participate in the survey since your views are important. The interview takes 20-30 minutes. No identifying information will be included, confidentiality information will be assured & there are no known risksand benefits associated with this study. We will not pay you for participating in the study; your participation is based on full understanding of the purpose of the assessment and your willingness.

Are you willing to participate?

Yes …….

No…….

At this time, do you want to ask me anything about the survey?

English questionnaire

Socio economic, demography economic of female undergraduate students of AAU

Now I am going to ask some questions about socio economic and demography in order to gain a better understanding of some important life issues. I assure you all information provided will be kept in secret.

NO	Questions	Response	Skip
1	Age of the student	15-19 20-24 Above 25	
2	What is your current year of study?	I year……..... II year……. III year…… IV year and above …..……	
3	What is your father highest level of education?	Primary school (1-8)…..... Secondary school (9-12)…. More than secondary school……. Non educated	
4	What is your mother highest level of education?	Primary school (1-8)…..... Secondary school (9-12)…. Technical/ Vocational…… Higher education……	
5	Family monthly income	1000-2999 3000-5999 6000-8999 Above 9000	
6	What is your religion?	Orthodox Christian…… Muslim……... Protestant……... Catholic …… Traditional…….. Other (specify)…….	

7	What is your ethnicity?	Oromo…… Amhara……... Tigre……... SNNP……. Other ……	
8	Where are you living now?	In campus……...…… Out of campus …….	

Sexual and reproductive history, family planning history of female undergraduate students of AAU.

This questions is about your sexualand reproductive history. Let me assure you again that your answer are completely confidential and will not be told to anyone. If you should come to any question that you don't want to answer, you can go to the next questions.

Ser No	Questions	Response	Skip
1.	Have you ever had sexual intercourse	Yes …… No ……..	2, 3,4,5,6, 7,8,9, 10,11
2	How old were you when you had intercourse for the very first time?	(Specify)…….	
3	Have you ever had unprotected sexual intercourse? Definition: -Unprotected sexual intercourse is an intercourse without barrier methods.	Yes……. No……...	
4	Have you ever had sex in return of money or material?	Yes …… No……	
5	Have you ever had STIs that is confirmed by health professional? Definition: - Sexually transmitted infection (STIs) are disease which you got through sexual contact with symptom of abnormal, genital discharge, genital sore & ulcer	Yes……. No……..	
6	Have you ever been pregnant?	Yes……. No……...	7,8,9
7	Was you last pregnancy wanted?	Yes……. No……...	
8	Have you ever given birth?	Yes……. No……..	

9	Have you ever had experience of induced abortion? Definition: abortion caused purposely.	Yes……. No……...	
10	Are you using the method you choose?	Yes …… No…….	
11	Do you think contraception Can prevent sexually transmitted infection?	Yes…….. No……	
	What was the reason for not using contraception	Specify……	

አዲስአበባዩኒቨርስቲ
የሀገርልማትኮሌጅ
ስነህዝብጥናት (ስነ-ተዋለዶ)ትምህርትቤት
ስለጥናቱአጠቃላይመረጃ

ሰላምታ!

ስሜሰላምወንድማገኝይባላል።የአዲስአበባዩኒቨርስቲየሀገርልማትኮሌጅስነህዝብጥናት (ስነ-ተዋልዶ)ትምህርትቤትለሚያከናውነውጥናትመረጃበመሰብሰብላይነኝ።የጥናቱአላማየወሊድመቆጣጠሪያላይተጠቃሚዎችንእናተዛማጅምክኒያቶችላይለማጥናትሲሆንይህምፕሮግራምለመቅረፅእናአግባብያለውአጠቃቀምእንዲመጣያደርጋል።አሁንሴትተማሪዎችንበዚህጥናትከ 20-30 ደቂቃየሚፈጅመጠይቅእያስሞላሁእገኛለሁ።ይህንዓላማእውንለማረግእርስዎበፍቃደኝነትላይየተመሠረተትብብርእንዲያረጉልኝበትህትናእጠይቃለሁ።መጠይቁንበሚሞሉበትወቅትመመለስየማይፈልጉትጥያቄካለበግልፅመናገርይችላሉግንየሚሰጡንመረጃለጥናቱእጅግከፍተኛየሆነጠቀሜታይኖረዋል።በመጠይቁወቅትየእርሶንስምምሆነማንነትሊገልፅየሚችልነገርአይጻፍም።ለጥያቄዎቹየሚሠጡትምላሽያለእርስዎፍቃድለሶስተኛወገንተላልፎአይሰጥም።እርስዎለሚሰጡትመረጃሙለበሙለበሚስጥርእንደሚያዝላረጋግጥልዎእወዳለሁ።በጥናቱሲሣተፉእርስዎላይየሚደርስምንምዓይነትችግርየለም።በጥናቱበመሳተፍዎምንምዓይነትክፍያአንከፍልዎትም።በጥናቱየሚሳተፉትየጥናቱንዓላማበመረዳትእናሙሉፍቃደኛከሆኑብቻነው።ጥናቱንበተመለከተተጨማሪመረጃቢያስፈልግዎለጥናትአድራጊዋሰላምወንድማገኝበስልክቁጥር +251-938-051405 ማግኘትይችላሉ።

1.ማህበራዊ፤እኮኖሚያዊእናስነህዜብየሚዳስስበአዲስአበባዩኒቨርስቲለመጀመሪያዲግሪሴትተማሪዎች

የሚደረግቃለመጠይቅ ነዉ።

አሁንስለማህበራዊ፤እኮኖሚያዊእናስነህዜባዊሚዳስስመጠይቅልጠይቆትነው።ይህምከወሊድመቆጣጠሪያጋርያለውን

ግንኙነትለመረዳትይረዳሌ።የሚሠጡንመረጃበሚስጥርእንደሚያዝላረጋግጥልዎእወዳለው።

ተ.ቁ	ጥያቄ	ምላሽ	ይዘለል
1.	በምንወርናዓመተምህረትነውየተወለዱት?	15-19 20-24 25 በላይ	
2.	የስንተኛዓመትተማሪነዎትአሁን?	I አመት..... II አመት..... III አመት..... IV አመት እና በላይ.....	
3.	የአባትዎየመጨረሻዉንየትምህርትደረጃቢገልፁልኝ?	አንደኛደረጃ (1-8 ክፍል)..... ሁለተኛደረጃ (9-12 ክፍል)..... ቴክኒክናሙያ ..... ከፍተኛትትምህርት	
4.	የእናትዎ የመጨረሻያው የትምህርት ደረጃ ቢገልፁልኝ?	አንደኛደረጃ (1-8 ክፍል)..... ሁለተኛደረጃ (9-12 ክፍል)..... ቴክኒክናሙያ ..... ከፍተኛትትምህርት	
5.	የቤተሰቦዎ ገቢ በወር ምን ያህል ብር ነው?	1000-2999 3000-5999 6000-8999 9000 እና በላይ	
6. 5	የምን ሀይማኖት ተከታይ ነዎት?	ኦርቶዶክስ..... እስልምና ..... ፕሮቴስታንት..... ካቶሊክ..... ባህላዊ.....	

		ሌላ ካለ ይገለፅ……	
7.	ብሔርዎ ምንድን ነው?	ኦሮሞ…… አማ…… ትግሬ…… ጉራጌ…… ደቡብ …… ሌላ ካለ ይገለፅ……	
8.	አሁን የትነው የሚኖሩት?	ካምፓስውስጥ…… ከካምፓስውጪ ……..	

2. የስነተዋሌዶታሪክንእናየወሊድመቆጣጠሪያንበተመለከተበአዲስአበባዩኒቨርስቲለመጀመሪያዲግሪሴት ተማሪዎችየሚደረግቃለመጠይቅ።

ይህቃለመጠይቅየሚዳስሰውስለስነተዋሌዶታሪክንእናየወሊድመቆጣጠሪያንነው።አሁንምደግሜደጋግሜ ሊሳስብዎየምወደውሚሰጡንመረጃበሚስጥርእንደሚያዝ እናለሌላሠውተሊልፎየማይሰጥመሆኑንነው።በቃለመጠይቅወቅትያልገባዎትወይምግልፅያልሆነነገርካለበግልፅመናገር ይችላሉ።

ተ.ቁ	ጥያቄ	ምላሽ	ይዘለል
1.	የግብረስጋ ግንኙነት አድርገዉ ያዉቃሉ	አዎ…… የለም……	
2.	ለመጀመሪያጊዜበስንትዓመቶዎነውየግብረስጋግንኙነትየፈጸሙት?	……	
3.	ጥንቃቄየጎደለውየግብረስጋግንኙነትአድርገውያውቃሉ? **ገለፃ**፡የግብረስጋግንኙነትያለኮንዶምሲፈፅም	አዎ…… የለም……	
4.	ለገንዘብወይምለተለያዩጥቅማጥቅሞችሲባልየግብረሰጋግንኙነትፈፅመዉያዉቃሉ?	አዎ…… አላውቅም……	

5.	በጤናባለሙያየተረጋገጠየአባላዘርበሽታከዚህበፊት አጋጥሞትያዉቃል? **ገለፃ፡**የአባላዘርበሽታማለትበግብረስጋግንኙነትየሚ ተላለፍበሽታሲሆንማሳከክ፤ቁስለትእናየሚሸትፈሳ ሽበብልቶችአከባቢሲከሠትነው።	አዎ…… አያውቅም……	
6.	አርግዘውያውቃሉ?	አዎ…… አላዉቅም……	6
7.	እርግዝናውበፍላጎትነበር?	አዎ…… አይደለም……	
8.	ልጅወልደውያውቃሉ?	አዎ…… አይደለም……	
9.	ከዚህበፊትፅንስአቋርጠውያውቃሉ?	አዎ……አላዉቅም… ……	
10.	የመረጥሽዉንየወሊድመቆጣጠርያእየተጠቀምሽነ ዉ ?	አዎ…… አይደለም……	
11.	ሁሉምየወሊድመቆጣጠሪያዎችየአባላዘርበሽታንይ ከላከላቸብለሽታስቢያለሽ ?	አዎ…… አይደለም……	
	የወሊድ መቆጣጠሪያ ላለመጠቀም ምክንያትዉ?		