



ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

Prevalence of Sexually Transmitted Infections and its Association with Emergency
Contraceptive Use among Regular Female Students at Addis Ababa University

BY

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Declaration

I, the undersigned, declare that this thesis is my original work, has not been presented at this or any other university, and that all resources and materials used in the development of this thesis are properly recognized and cited. I also acknowledge the contributions of all individuals involved.

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Acronyms

AAU- Addis Ababa University

AME- Average Marginal Effect

AOR- Adjusted Odd Ratio

COCs- Combined Oral Contraceptives

COR- Crude Odd Ratio

EC - Emergency Contraception

ECPs -Emergency Contraceptive Pills

EDHS- Ethiopian Demographic and Health Survey

HIV -Human Immunodeficiency Virus

HPV- Human Papilloma Virus

HSV- Herpes Simplex Virus

IUCD- Intrauterine Contraceptive Device

OTC- Over-The-Counter

OR - Odds Ratio

RSB-Risky Sexual Behavior

SDG- Sustainable Development Goals

SRH- Sexual and Reproductive Health

STIs -Sexually Transmitted Infections

US- United States

WHO - World Health Organization

Abstract

Background: Emergency contraceptive (EC) use after unprotected sexual intercourse has become increasingly common among female university students. However, its repeated and sole use as a pregnancy prevention method exposes users to sexually transmitted infections (STIs), including HIV, due to risky sexual behaviors and inconsistent use of preventive measures like condoms. Despite its widespread use, there is a paucity of evidence about EC use and STI status among female university students in Ethiopia.

Objectives: This study aims to assess the prevalence of STI, emergency contraceptive use and its association with STIs among female regular undergraduate university students at AAU.

Methods: An institutional-based cross-sectional study was conducted using a multistage sampling method from randomly chosen departments within each college. Data were collected using a self-administered structured online questionnaire from 793 students, exported to STATA, and descriptive analysis, bivariate, and multivariate logistic regression were done.

Results: The study shows there is high EC use and STI prevalence among the participants where 52.3% was using EC in the past year and out of those 81% using it repeatedly. A little less than half (43.7%) of the students had STI in the past year, and the number rises to 63.7% among EC users. Only 31.5% had persistent use of condoms. There is a strong association between EC use and STI status with AOR of 17.71 (SE=8.10, 95%CI) after adjustment.

Conclusions: The strong association between EC use and STI status can indicate EC use is associated with unprotected sex and risky sexual behaviors. In addition, the results show students are more concerned about pregnancy than STI risk. Thus there is a need for comprehensive reproductive and sexual health education emphasizing on integrated STI and pregnancy prevention. Further research is required to explore the facilitators and barriers behind EC use over other contraceptive methods.

Keywords: Emergency contraceptive, STI, university, female students

1. Introduction

1.1. Background

WHO defines 'youth' as those aged 15–24 , and 'young people' as those aged 10–24 (1) while Ethiopia's national youth policy defines youth as individuals aged 15–29 (2). One-fourth of the world's population is young where 86% is found in developing countries such as Ethiopia (3). This highlights the significance of addressing youth-specific health challenges in countries like Ethiopia where 32% its population is classified as youth (4). Youth is characterized by a series of physiological, psychological, and social changes that result in sexual curiosity and experimentation which in turn lead to risky sexual behaviors such as early sexual debut, unsafe sex, and multiple sexual partners (5). These behaviors are particularly concerning in settings with limited sexual health education and services. Moreover, youth also face many challenges related to sexual and reproductive health due to lack of knowledge, limited access to services and information, social stigma, and gender inequality (6). These challenges are exacerbated among university students who often experience increased independence but lack access to the right sexual health information and also youth-friendly services (7).

University students as youth face numerous problems related to their sexual and reproductive health (SRH) as they have a high rate of risky sexual behaviors associated with peer pressure, loss of parental supervision, and substance abuse (2,8). The lack of youth-friendly services in combination with fear of stigma towards premarital sex, confidentiality, privacy, and judgments from health care providers has led to gaps in SRH service use (7,9). As a result youth with limited SRH service use engages in risky sexual behavior such as early sexual initiation, multiple sexual partners, unprotected sex, inconsistent condom use and use of substance along with sexual activity (2). This further exposes them to unwanted pregnancy and consequent reliance on emergency contraceptives and sexually transmitted infections (7,10).

In Ethiopia, the prevalence of risky sexual behaviors among youth is high (40%) and even higher particularly among university students showing values up to 61% (11). Following this trend of unprotected sex, Emergency contraception (EC) has become the utmost option in preventing unintended pregnancies among university students showing prevalence of ever use of EC up to 78 % (12). Female university students use EC as their primary contraceptive method, often

prioritizing pregnancy prevention over STI protection (13) . However, EC increases risk to STIs when other preventive measures like condoms are not used since EC doesn't offer any protection against STIs (14) .

Sexually transmitted infections (STIs) continue to be a major public health concern worldwide, even more so in developing countries like Ethiopia (15). STIs including HIV are among the leading causes of morbidity and mortality in adolescents and youth in Ethiopia (16,17). A systematic review revealed that pooled prevalence of STIs were 13.6% among students and 14.5% among university students in Ethiopia which is more than four times higher than the prevalence in the general population (18). Additionally it's also the youth in the age group of 15-24 that comprise nine percent of the HIV-affected population (19). Despite this burden of STIs, only half of young people were found to practice STI-preventive behaviors (20).

Given these challenges, SRH problems among Ethiopian youth need interventions that focus on preventive strategies such as the use of condoms, EC, and comprehensive sexual education (2). Ethiopia is working towards meeting the Sustainable Development Goals (SDG), particularly SDG 3.7 and SDG 5.6 focusing on ensuring universal access to sexual and reproductive health services and reproductive rights by 2030 (21). Although Ethiopia has succeeded in improving access to healthcare in the past two decades, sexual and reproductive health issues remain a challenge due to limited access and low-quality service delivery, stigma and taboo around sexual health discussions, and low levels of sexual and reproductive health information (22). The main SRH problems among youth and adolescents include unintended pregnancy, unsafe abortion, early childbearing, and sexually transmitted infections (STIs) including HIV (23). While EC use can prevent most of these problems including unintended pregnancy and its consequences, using EC can't protect from STIs (24). Moreover the reliance on EC as primary contraceptive method contributed to risky sexual practices such as reduced condom use, and decreased perception of risk towards STI as shown in studies done among youths in US and Ethiopia (14,25).

1.2. Statement of the problem

Sexual and reproductive health issues remain significant public health concerns globally, particularly in sub-Saharan Africa (26). Among these, STIs including HIV and unintended pregnancies represent dual challenges to the sexual and reproductive health of Ethiopian youth, particularly university students (27). EC offers an effective means of preventing unintended pregnancies, preventing up to 95% of pregnancies if taken within the recommended timeframe. However, there is still a risk of failure and also reduced effectiveness for overweight and obese individuals (28). ECs specifically the EC pills (ECP) is an OTC (over the counter) drug in Ethiopia. ECPs are commonly known as post-pill. It is found in pharmacies with a current price of on average 75 Birr while condoms can be found in shops, supermarkets, and pharmacies with prices starting from 45 Birr. Nevertheless, regardless of the higher price, risk of failure and limited availability, young people seem to prefer to rely on ECs as the main method of contraception.

Emergency contraceptives are meant to be used in cases of emergencies such as unprotected sex and contraceptive failure but not as a mainstay form of contraception because of the following reasons; they are not as reliable as regular contraceptive methods, the high level of hormones can lead to unnecessary hormonal exposure and even though their side effects are similar, it exceeds that of with standard contraceptive methods due to the higher hormonal levels (29). Contrary to the above suggestion, the use of EC as the only means of contraception regularly is evident. This is concerning because studies has shown that use of EC as the primary contraceptive method contributed to increased STI risk (30,31).

Studies showed that young women using EC as their primary contraceptive method often prioritized pregnancy prevention over STI protection. For instance, despite the dual benefits of condoms for both STI and pregnancy prevention, only a small proportion of women using EC simultaneously uses condoms for STI prevention. In Ethiopia, inconsistent condom use among female university students is high, with many opting for EC despite its lack of protection against STIs (30,31). This reliance on EC combined with inconsistent condom use indicates a significant gap in the dual protection against both pregnancy and STIs.

Additionally, easier access to EC was shown to encourage risky sexual behaviors and result in STIs. For example, studies in the USA have linked increased EC availability with higher rates of

unprotected sex and a rise in STIs (32). Additionally, in a qualitative study done in Addis Ababa “Pharmacists and healthcare providers reported reduced condom sales and fear that reliance on EC fosters irresponsible sexual practices”. The study also shows “despite high utilization and reliance on EC, young people didn't have adequate knowledge about EC and were reluctant to ask and learn about it due to social and cultural norms towards premarital sex” (33).

Contrary to the above findings, a study among university students in Spain did not find significantly higher rates of STIs in EC users. However a study among female university students in Ghana showed there was a strong association between ECP usage and risk of STI where ECP users had 3.817 times higher chance of contracting STI than non EC users (34,35). These contrasting findings highlight that whether EC use was correlated with STI acquisition is still controversial and warrants further research.

Despite the increasing reliance on EC as a primary contraceptive method, there is a limited understanding of the association between sexually transmitted infections and emergency contraceptive use among female university students in Ethiopia. While EC use is effective in preventing unintended pregnancies, evidence suggests it may increase risky sexual behaviors which in turn lead to STIs (35) . However, the relationship between EC use and STI is not well explored in the Ethiopian context. There is significant a gap in understanding STI prevalence among EC users, influences of EC use on risky sexual behaviors, barriers to consistent condom use, and the underlying factors driving the preference for EC over dual-protection methods. Thus, this study aims to bridge the knowledge gap by assessing if STI is prevalent among EC users and how EC use may expose to risk of STI by identifying the patterns of EC use among female university students, their knowledge and attitudes towards EC and STIs, and the socio-demographic and behavioral factors influencing their contraceptive choices.

1.3. Significance of the study

Reproductive choices made at adolescence and young age affects reproductive health at later ages. In Ethiopia, evidence indicates that young people including university students use EC to control for unintended pregnancy (12,25,30,31). Emergency contraceptive use implies practice of unprotected sex with either casual or regular sexual partner, which predisposes to sexually transmitted infections including HIV/ AIDS. However, works that has documented the association between EC use and STIs is limited. Hence this study will show the gaps in information regarding reproductive and sexual health, the improper use and abuse of EC and the prevalence of STIs and risky sexual behaviors among female university students. The study will fill the gap in understanding the association between EC use and STI risk among female university students in Ethiopia who are at high risk of both unintended pregnancies and STIs by examining the patterns of EC use and its potential link to risky sexual behaviors and risk perception towards STIs and STI acquisition. The findings of this study will contribute to evidence-based health education programs and STI prevention strategies especially for young women in universities. The results of this study will also have implications for the design of youth-friendly sexual and reproductive health services tailored to the needs of female university students by informing the knowledge gaps in SRH related practices and underlying factors influencing EC reliance and its potential impact on STI prevalence.

2. Literature review

2.1. Risky Sexual behaviors among the youth

Risky sexual behavior refers to sexual practices that increase the likelihood of adverse health outcomes such as STIs including HIV/AIDS, unintended pregnancies, and unsafe abortions. It includes having at least one of the following: multiple sexual partners; initiation of sex before the age of 18 years; inconsistent condom use; alcohol consumption during sex and transactional sex (36).

A meta-analysis in sub-Saharan Africa showed a high prevalence of risky sexual behaviors among the youth with low treatment-seeking behaviors for STIs, particularly in Ethiopia where prevalence of health-seeking behavior for STIs was the lowest (37.9%) (37). Similarly, a multilevel analysis of EDHS 2016 revealed 26.9% of unmarried men in Ethiopia have risky sexual behavior (38). In support of this, a systematic review showed risky sexual behavior prevalence among college and university students ranged from 23.3% to 60.9% with pooled prevalence being 41.62% (11). Risky sexual behaviors were also found to be prevalent among out-of-school youths in Ethiopia showing 40.6% in a study done in sub-cities of Addis Ababa (39). Another study done in Addis Ababa among youths reveals risky sexual behaviors were less prevalent in youths who attended youth-friendly services than those who didn't (40). Younger age, peer pressure, early sexual debut, watching pornography, lower economic status, substance use, lack of awareness about sexual and reproductive health, lack of contraceptive methods, and religion were found to be major predictors of risky sexual behaviors among youth in Ethiopia (11,39–41).

Risky sexual behaviors such as early sexual initiation, multiple sexual partners and unprotected sexual intercourse are common among Ethiopian youth. For instance, according to the Ethiopian national survey six out of ten women had sex before the age of 18 (42). A meta-analysis focused on youth found that the pooled prevalence of early sexual initiation was 24.7% (43). In another meta-analysis the prevalence among students was found to be higher at 27.9% (44).

Another one of the risky sexual behaviors, having multiple sexual partners was also prevalent. Studies conducted in different parts of Ethiopia among young students showed prevalence of having multiple sexual partners ranged from 25% to 70%. Being male was found to be associated

with having multiple sexual partners while being female was associated with early sexual initiation (43,45).

Additionally, studies found that unprotected sexual intercourse is also common in young people, as more than half of sexually active students don't use condoms consistently, leaving them vulnerable to both STIs and unintended pregnancies (20). Condom remains the only contraceptive method that has the benefit of dual protection from both unintended pregnancy and sexually transmitted infections including HIV (46). However condom utilization is low among the youth even when there is risk perception on STI. One in four young people was found to have unprotected sexual intercourse likely due to misconceptions such as condoms aren't effective in preventing STIs, contraceptive pills can prevent STIs and alcohol does not increase risky sexual behavior. Youths also presented the cost of service, being ashamed, unavailability during sex, reduced satisfaction, and partner refusal as reasons not to use condoms (47,48). This highlights the need for improved sexual health education and access to dual protection methods.

2.2. Emergency Contraception Use

EC refers to methods of contraception that prevent pregnancy after unprotected sexual intercourse. These are recommended for use within 5 days but are more effective the sooner they are used after the act of intercourse. ECs can be used in situations where there is unprotected intercourse, concerns about possible contraceptive failure, incorrect use of contraceptives, and sexual assault if the woman is not protected by an effective contraceptive method. There are two main types of ECs; copper-bearing IUDs and emergency contraceptive pills (ECPs) (28). Copper IUD is the most effective one with a failure rate of $< 0.1\%$ and the EC pills: ulipristal acetate, levonorgestrel, and combined oral contraceptives (COCs) have different efficacy with failure rates of 0.9% to 2.1%, 0.6% to 3.1%, 2.0% to 3.5% respectively (49).

Globally, awareness and use of EC have been rising, with Colombia having the highest awareness and use of EC (66%, 12%) while Chad had the lowest (2%, 0.1%) (50). In sub-Saharan Africa, there is remarkable increase in awareness about emergency contraception in Ghana (64%) and Kenya (59%) showing significant improvements while it remains low in Niger and Burkina Faso. Almost invariably being older, higher education level, having an urban residence, and having higher economic status were found to be associated with better awareness and use of emergency contraception across sub-Saharan Africa (17,51).

In Ethiopia, EC awareness and use among women have shown variability. A 2019 national survey reported 2.7% EC awareness prevalence with no use at all (52). However other studies done in Ethiopia generally among women had shown higher values, awareness of EC ranging from 10.1% to 93.5% (53,54) and utilization of EC ranging from 0% to 78% (12,53). The pooled prevalence of EC use specifically among female university students had shown almost the average value of the above which is 34.5% (55). EC use among university students has changed, increasing slowly over the past twenty years; 4.9% in AAU and Unity University in 2005, 6.8% in Jimma University in 2009, 44.4% in Wachemo University in 2013, and 78% in Arba Minch University in 2018 (56–58,12). Particularly in Addis Ababa University, there has been an improvement in the use of ECs from less than 5% in 2005 to 24.5% in 2022 (56,59).

The major predictors of EC utilization were age above 20, higher education level, being married, prior or current residence in an urban area, having no children, previous use of EC, previous use of regular contraceptive, good knowledge about EC, favorable attitude towards EC, prior sexual experience, history of previous pregnancy, access to information on ECs, and good attitudes of healthcare providers. However barriers such as not having good knowledge about EC, lack of access to EC, fear of social and cultural taboos towards premarital sexual activity led to non-use or misuse of EC. Students also reported that use of EC following non-consensual sex, unprotected sexual intercourse, forgetting contraception, and partner influence (53–55,59–63).

Studies have raised concerns about the misuse of EC as a regular contraceptive method. For instance, reliance on EC has been linked to reduced condom use, thereby increasing the risk of STIs (30,31). Thus the association between EC and STI remains an area of investigation in Ethiopia, particularly among university students, who are at higher risk of both unintended pregnancies and STIs.

2.3. Sexually Transmitted Infections

Sexually transmitted infections (STIs) continue to be a major public health concern worldwide, even more so in developing countries like Ethiopia. According to WHO, there were 374 million diagnosed cases of curable STIs by the year 2020 and 1 million new cases are diagnosed every day with about 1 billion people living with viral STIs excluding HIV, with a significant burden in sub Saharan Africa (15). STIs include both curable infections such as gonorrhea, chlamydia, trichomoniasis and syphilis, as well as incurable viral infections like HIV, HPV, HSV and

Hepatitis B. Bacteria, viruses, and parasites can cause STIs. STIs are those infections that can be passed from one person to another through sexual contact. STIs can also be transmitted during pregnancy, childbirth, breastfeeding, and contact with blood and blood products. Most STIs are asymptomatic but some may present with genital ulcers, itching, vaginal or urethral discharge, and lower abdominal pain (64).

In Ethiopia, 2016 EDHS reported STI prevalence of 4% among those 15-45 years of age, with only one-third seeking advice or treatment (42). A study among university students reported even higher STI prevalence of 18% in Gondar University and 22.8% in Ambo University, with vaginal discharge and genital ulcer being the predominant symptoms (27,65) .

HIV remains a significant concern, with a national prevalence estimated to be 0.87% and disproportionately affecting females (64.3%) and young people below 30 years in Ethiopia. HIV prevalence also varied by region, with the highest estimated prevalence of 3.25% in Addis Ababa, followed by 3.24% in Gambella, and the lowest (0.17%) in the Somali region by the year 2023 (19). Other studies in Ethiopia have shown the burden of STIs, such as the study in Sidama where one in ten youths had one of the four STIs; HBV, HCV, HIV or syphilis and another one showed limited health-seeking behavior and timely treatment of STIs (47,48).

The consequences of STIs extend beyond SRH, affecting overall physical health, including infertility, pregnancy complications, and increased risk of HIV acquisition. The burden of STDs is not limited to the physical health of individuals. It has significant social and economic impacts: social stigma, economic burdens from both direct medical expenses and indirect costs related to lost productivity and reduced quality of life. These costs are a substantial burden on the healthcare systems (15,66).

In summary, the literature shows a significant prevalence of risky sexual behaviors, low condom use by female students and their sexual partners due to several factors mentioned above (such as partner refusal, cost, reduced satisfaction, shame) and increasing reliance on EC among female university students. These factors collectively contribute to the burden of STIs. However, the association between EC use and STI risk remains underexplored in Ethiopia, particularly among female university students. This study aims to bridge this gap by examining the patterns of EC use, risky sexual behaviors, and their potential link to STI prevalence.

2.4. Conceptual Framework

Based upon the literature reviewed above, socio-demographic factors, behavioral and sexual characteristics, access to SRH services, knowledge, attitude and pattern of EC use, risk perception and awareness to STIs are considered independent variables, and STI status is considered as a dependent variable. Demographic factors, behavioral factors, access to SRH services, knowledge and attitude towards EC and STI influence both risky sexual behaviors and patterns of EC use. Risky sexual behaviors mediate the relationship between patterns of EC use and STI. Risky sexual behaviors acts as both the cause of EC use since unprotected sex is what leads to EC use but it also acts as the effect of EC use because EC use reduces perceived consequences of unprotected sex, providing security in prevention of pregnancy while neglecting STI risks. Thus leading to repeated EC use with lack of consistent preventive measures like condoms, This cyclical relationship further exacerbate risky sexual behaviors, increasing STI prevalence.

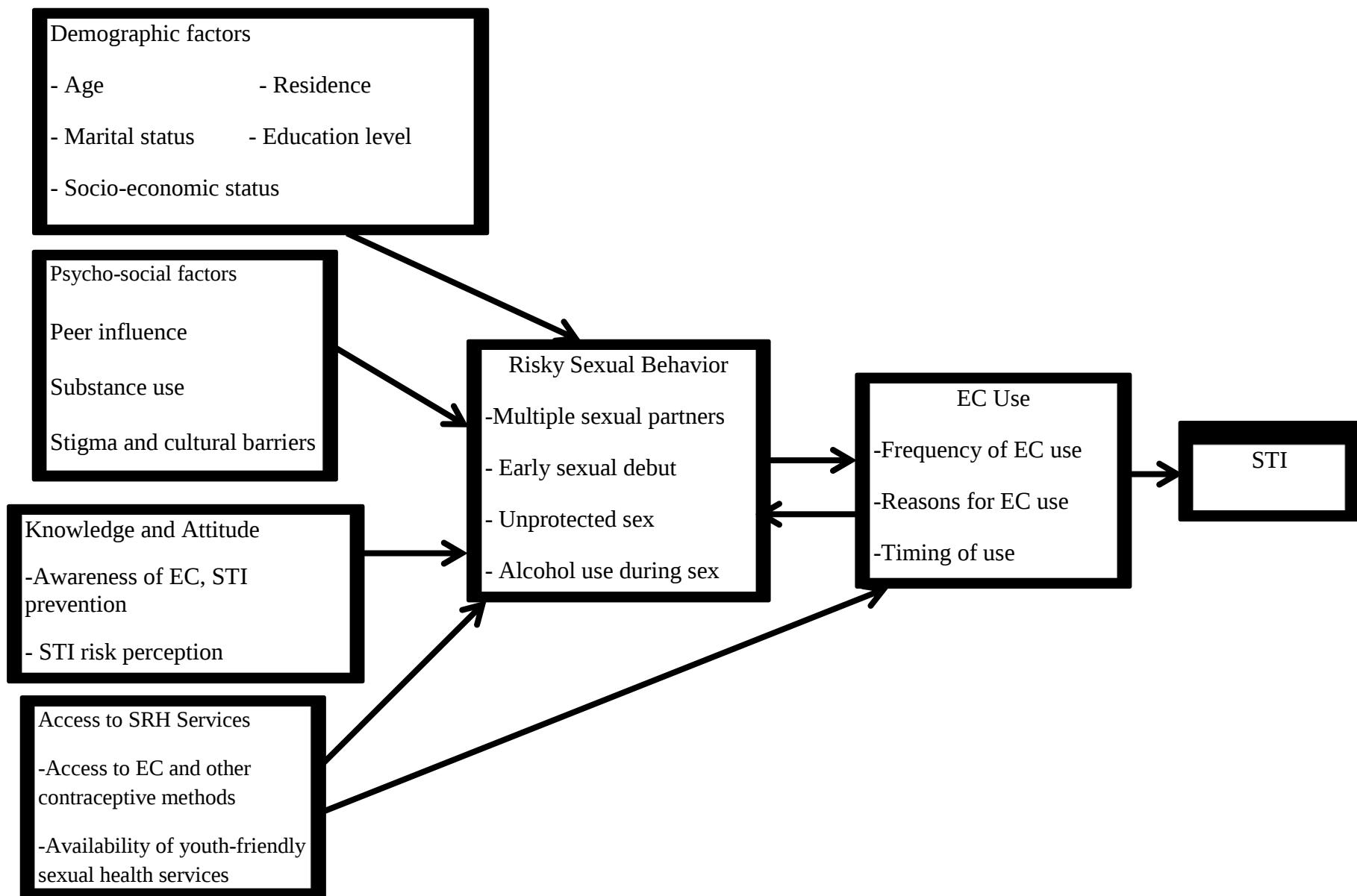


Figure 1 Conceptual framework showing the relationship between EC use and STI and other determinants, 2024

3. Objectives

3.1. General objective

- To assess the prevalence of sexually transmitted infections and its association with emergency contraceptive use among regular female undergraduate students in AAU

3.2. Specific objectives

- To assess prevalence of emergency contraceptive use among regular female undergraduate students in AAU
- To determine prevalence of STIs among regular female undergraduate students in AAU
- To identify the association between emergency contraceptive use and sexually transmitted infections among regular female undergraduate students in AAU

4. Methods

4.1. Study area

The study was conducted at Addis Ababa University, a university in the capital, Addis Ababa. AAU is the oldest university in Ethiopia, founded in 1950. In addition to conducting research, it provides undergraduate, postgraduate, and medical specialty programs across 14 campuses, 10 colleges, 10 institutes, and a teaching hospital. According to the university's central registrar office, a total of 17,561 students were enrolled in all the regular undergraduate programs, with female students accounting for 45% (7955) as shown in detail in Table 1. The university has ten student clinics, one per college (67). The study was conducted from January 2025 to March 2025.

Table 1 Number of regular undergraduate female students in each college of AAU in 2024

Colleges in AAU	Number of regular undergraduate female students in academic year 2024
Addis Ababa institution of technology (AAIT)	1005
Ethiopian Institute of Architecture Building Construction and Development (EIABC)	391
College of natural and computational studies (CNCS)	392
College of health sciences (CHS)	931
College of education and behavioral studies (CEBS)	147
College of performing and visual arts (CPVA)	73
College of law and governance studies (CLGS)	194
College of Social Sciences (CSS)	322
College of Humanities, Language studies, journalism and Communication (CHLJC)	159
College of business and economics (CBE)	1601
College of Veterinary Medicine and Agriculture	53
Freshman in natural science	1400
Freshman in social science	1287

4.2. Study design

An Institution-based cross-sectional study was conducted to assess the association between emergency contraception use and sexually transmitted infections among female regular undergraduate students at Addis Ababa University.

4.3. Source and Study Population

4.3.1 Source Population

- The Source population was all regular female undergraduate students at Addis Ababa University.

4.3.2 Study population

- The study population included randomly selected female regular undergraduate students at Addis Ababa University.

4.4 Inclusion and Exclusion Criteria

4.4.1 Inclusion criteria

- All regular female undergraduate students attending Addis Ababa University were included in this study.

4.4.2 Exclusion criteria

- Female undergraduate students who were not present during the time of data collection
- Female undergraduate students who were critically ill during the time of data collection

4.5. Sample Size Determination

For the three objectives, the sample size was calculated using the single population proportion formula as follows. The prevalence used for sample size calculation was from studies done in AAU (24.5%), and Gondar University (18.2%) for EC use and STI, respectively (59,65) Since local data was not available for the prevalence of STIs among EC users, 50% was used for sample size calculation.

P= prevalence of EC use in objective 1, prevalence of STI in objective 2 and prevalence of STI among EC users in objective 3.

Z= 95 % confidence level = 1.96, D= design effect =2, E =Margin of error =0.05, n= sample size

$$n = (Z\alpha/2)^2 p (1 - P) / E^2$$

Since the source population was less than 10,000, which is 7955 (N), a correction formula [$N_f = n_0 / (1 + n_0/N)$] was used to calculate the final sample size, after taking into consideration the design effect (2) and a 10% non-response rate.

$$n_1 = (Z\alpha/2)^2 p (1 - P) / E^2 = (1.96)^2 * 0.245(0.755) / (0.05)^2 = 284$$

$$N_{f1} = N_f = n_1 / (1 + n_1/N) = 284 / (1 + 284/7955) = 274,$$

$$274 * 2 (D) = 548,$$

$$\text{Sample size} = 548 + 54.8(10\% \text{ none response rate}) = 602$$

$$n_2 = (Z\alpha/2)^2 p (1 - P) / E^2 = (1.96)^2 * 0.182(0.818) / (0.05)^2 = 229$$

$$N_{f2} = N_f = n_2 / (1 + n_2/N) = 229 / (1 + 229/7955) = 223,$$

$$223 * 2(D) = 446$$

$$\text{Sample size} = 446 + 44.6 (10\% \text{ none response rate}) = 490$$

$$n_3 = (Z\alpha/2)^2 p (1 - P) / E^2 = (1.96)^2 * 0.5(0.5) / (0.05)^2 = 384$$

$$N_{f2} = N_f = n_2 / (1 + n_2/N) = 384 / (1 + 384/7955) = 367,$$

$$367 * 2(D) = 734$$

$$\text{Sample size} = 734 + 73.4 (10\% \text{ non-response rate}) = 808$$

Table 2 Sample size calculation for a study on the assessment of EC use and its association with STI among female regular undergraduate students in AAU, Ethiopia, 2024

Objective	Prevalence	Sample size	Corrected Sample size	With design effect of 2	After adding non-responder rate (10%)
objective 1	P = 24.5 for EC use	284	274	548	602
objective 2	P = 18.2 for STI	229	223	446	490
objective 3	P= 50 for STI among EC users	384	367	734	808

Since it is the largest of the three sample sizes, the sample size calculated for the third objective, 808, was taken as the sample size of the study.

4.6. Sampling technique

A multi-stage sampling technique was used to select the study participants in this study. The sample size of the study subjects was calculated in proportion to the population size from each college of the university according to the data from the registrar (except two colleges; College of Veterinary Medicine and Agriculture which was not included since it's located out of the city and College of Developmental Studies was not included, as it only offers postgraduate master's degrees and does not have an undergraduate program). Students were sampled from the remaining ten colleges, including freshman students. First, one to three departments were selected by lottery method from each college, depending on the college's population size. Then sampling fraction was calculated for each batch according to the number of students and the sample provided. Lastly, the students were selected using random sampling. Table 3 shows the sampling procedure including the proportional allocation of students to each department and year of study.

Table 3 Sampling procedure for female regular undergraduate students in AAU, Ethiopia 2024

College	Number of Students	Number of samples proportional to the population size from each college	Department chosen by lottery method	Sampled Students from selected departments proportional to the population size from respective batch			
AAIT	1005	103	Biomedical (58)	III: 33	IV: 10	V: 15	
			Mechanical (12)	III: 8	IV: 1	V: 3	
			Civil (33)	II: 20	III: 2	IV: 11	
EIABC	391	40	Architecture (40)	II: 7	III: 19	IV: 4	V: 10
CNS	392	40	Information Science (40)	II: 17	III: 15	IV: 8	
CHS	931	95	Pharmacy (48)	II: 15	III: 12	IV: 12	V: 9
			Nursing (47)	II: 17	III: 16	IV: 14	
CEBS	147	15	Psychology (15)	II: 7	III: 6	IV: 2	
CPVA	73	8	Music (8)	III: 3	IV: 5		
CLG	194	20	Law (20)	II: 6	III: 6	IV: 4	V: 4
CSS	322	33	Sociology (33)	II: 14	III: 19		
CHLSJC	159	16	Journalism (16)	II: 7	III: 5	IV: 4	
CBE	1601	164	Accounting and Finance (61)	II: 21	III: 33	IV: 7	
			Management (73)	II: 36	III: 21	IV: 16	
			Economics (30)	II: 16	III: 9	IV: 5	
Freshman Natural	1400	143		143			
Freshman Social	1287	131		131			

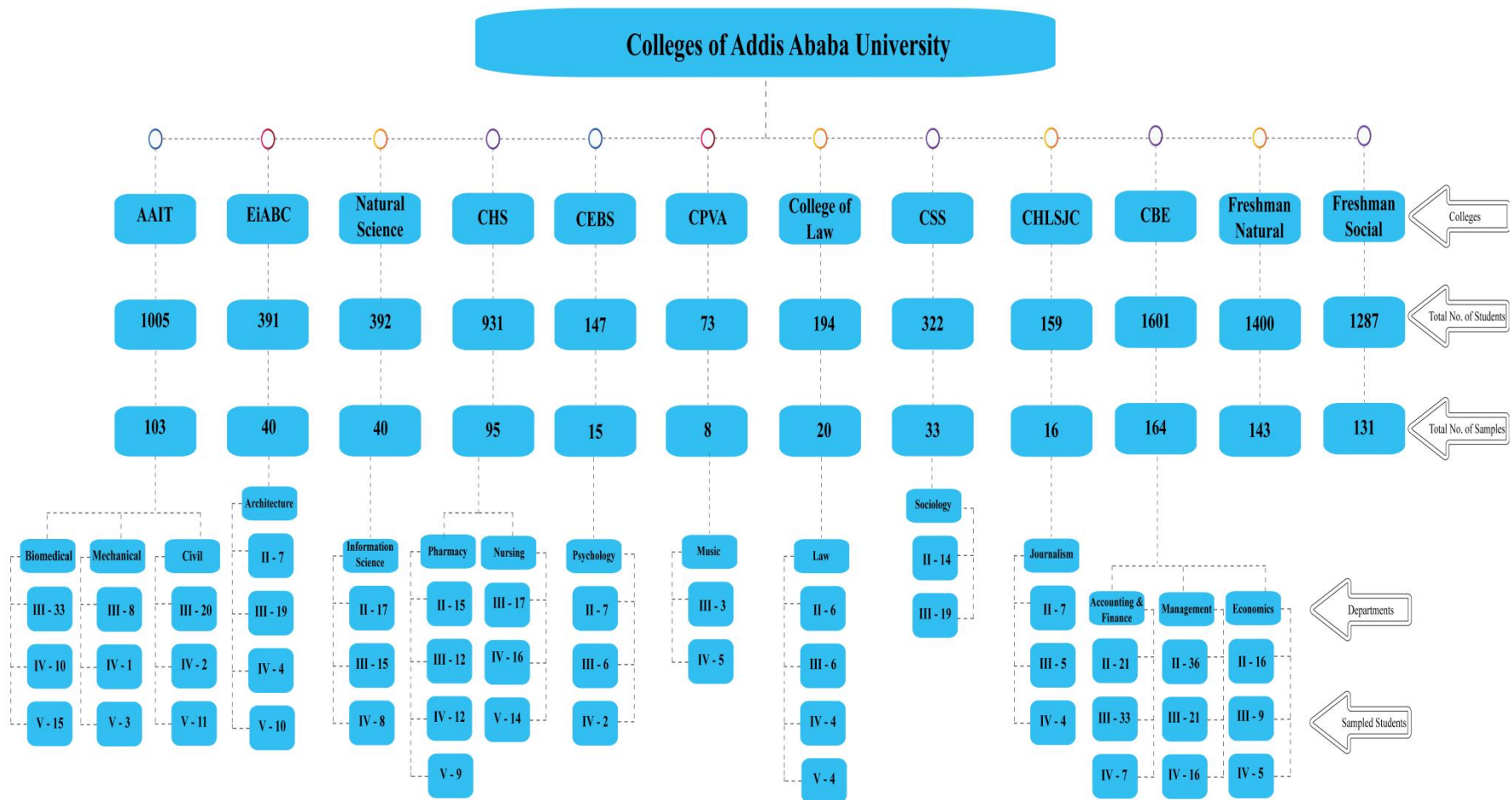


Figure 2 Schematic presentation of sampling procedure for a study on the assessment of EC use and its association with STI among female regular undergraduate students in AAU, Ethiopia 2024

4.7. Data collection

A structured questionnaire was prepared after reviewing relevant pieces of literature (25,30,31,35,68–71). The questionnaire had 5 parts: socio-demographic factors; behavioral factors; sexual behaviors; knowledge, attitude, perception, and practice towards emergency contraceptives; and knowledge, attitude, perception, and practice towards STIs. According to the Ethiopian national guideline for the management of STIs which uses syndromic approach and EDHS 2011, A student “who reported experiencing one or more risky sexual behaviors such as having multiple sexual partners, sexual contact with a casual sexual partner, or having experience of unprotected sex (inconsistent condom use), and sex after alcohol or substance use will be reported as experiencing risky sexual behavior”. A student with a “history of genital ulcer or sores, abnormal vaginal discharge, burning sensation on urination, or lower abdominal pain will be reported as experiencing STDs”(71,72). The questionnaire was first prepared in English and then translated into Amharic before being translated back into English to check for consistency. The finalized version of the questionnaire was converted into an online version using Kobo toolbox and this version was used for data collection. Ten female data collectors, BSc-holders, facilitated the data collection process.

After collecting student lists from respective departments, participants were selected randomly. The selected students were approached during class break or at end of class and informed about the study’s purpose and that their participation is entirely voluntary and will be kept confidential and there is no need to include any identification. They were assured that their responses would only be used for research purposes and would not be shared with third parties. Finally, if they were willing to participate, their verbal informed consent was taken, and provided with enough time to fill the questionnaires. If they were not willing to participate, they were excluded from the study. Supervisors and facilitators helped students in filling out the questionnaire by answering any raised questions, clearing ambiguities, providing phones/tablets, internet connection and technical support when needed.

Students from different departments in one campus were approached on the same day to minimize dissemination and contamination of information. Additionally, participants were informed not to share the contents of the questionnaire with others until the end of data collection, and supervisors made sure participants completed and submitted the questionnaire

before leaving the classroom or data collection venue to minimize discussion and sharing of information.

4.8. Data Quality Management

Facilitators and supervisors for the data collection were trained for three days on the content of the questionnaire, the purpose of the study, and the importance of privacy, discipline, and approach to the participants and the confidentiality of the respondents. In addition to this, the facilitators were familiarized with the kobo toolbox. Based on a pretest conducted at a private university, modifications were made to the questionnaire, and reorientation was given to the facilitators.

4.9. Study variables

Dependent Variable

- STI Status

Independent Variables

- Demographic variables: age, year of study, marital status, residence, income level, religion
- Emergency contraception use: frequency of EC use, pattern of EC use, knowledge and attitude towards emergency contraception
- Risky sexual behavior (RSB): condom use consistency, number of sexual partners, age of sexual debut, alcohol use on last sexual intercourse
- Perception and attitude toward STIs: perceived risk of STIs, attitude toward STI prevention
- Awareness of STI prevention methods
- STI symptoms, STI diagnosis history

4.10. Operational Definitions

- EC Users: Students who are sexually active and who have used EC at least once in the past 12 months was reported as EC users.

- EC non-users: Students who are sexually active and who have never used EC or have not used it in the past 12 months was reported as EC non users.
- Repeat EC Use: Students who are sexually active and who have used EC more than once (even in the same cycle) in the past 12 months was reported as repeated EC users.
- Sexually Transmitted Infections (STIs) status: students who have one of self-reported STI symptoms and/ or having history of STI diagnosis or treatment in the past 12 months was reported as having STI.
 - Self-reported STI symptoms: have at least one of the following; genital discharge, ulcers, itching, lower abdominal pain or pain during urination in the past 12 months.
 - Diagnosed STIs: have a history of diagnosis and/or treatment of STI at least once in the past 12 months.
- Risky Sexual Behaviors: students having any one of the following will be reported as having risky sexual behavior; unprotected sex (nonuse or inconsistent use of condoms), having multiple sexual partners, early sexual debut, alcohol use during sexual activity
- Early sexual debut: First sexual intercourse before the age of 18.
- Multiple sexual partners: Having more than one sexual partner in the past 12 months.
- Casual sexual relationships: Sexual encounters outside committed relationships.
- Alcohol use during sexual activity: Consumption of alcohol before or during sexual intercourse.
- Condom Use: utilization of condom by sexually active female students or their partners during sexual intercourse.
- Consistent condom use: Using condoms in every sexual encounter.
- Inconsistent condom use: Using condoms only sometimes or never.

- Dual Protection: Using both condoms and another contraceptive method during sexual intercourse.

- Knowledge of EC: awareness and understanding of EC types, indications, timing of use, and sources of access.

Low knowledge: participants who have EC knowledge mean score value of < 3.5

Medium knowledge: participants who have EC knowledge mean score value of 3.5-5.5

High knowledge: participants who have EC knowledge mean score value of >5.55

- Perception of EC: subjective beliefs about EC's safety, effectiveness, and accessibility.

Negative Perception: participants who have mean score of perception scale towards EC 1 - 2.4

Neutral Perception: participants who have mean score of perception scale towards EC 2.5 - 3.6

Positive Perception: participants who have mean score of perception scale towards EC 3.7 – 5

- Attitude toward EC: an opinion, out looks, values, position and intentions of the participants toward the availability and utilization of EC.

Negative Attitude: participants who have mean score of attitude scale towards EC 1 - 2.4

Neutral Attitude: participants who have mean score of attitude scale towards EC 2.5 - 3.6

Positive Attitude: participants who have mean score of attitude scale towards EC 3.7 – 5

- Knowledge of STIs: awareness and understanding of symptoms, risk factors, and prevention methods of STI.

Low knowledge level: participants who have EC knowledge mean score value of < 8

Medium knowledge: participants who have EC knowledge mean score value of 8-12

High knowledge: participants who have EC knowledge mean score value of >12

- Perception of STI: participant's belief about their susceptibility to STIs, capability to use prevention methods and severity of consequences.

Negative Perception: participants who have mean score of perception scale towards STI 1 - 2.4

Neutral Perception: participants who have mean score of perception scale towards STI 2.5 - 3.6

Positive Perception: participants who have mean score of perception scale towards STI 3.7 – 5

- Attitude toward STI: an opinion, out looks, values, position and intentions of the participants to adopt protective behaviors towards STIs.

Negative Attitude: participants who have mean score of attitude scale towards STI 1 - 2.4

Neutral Attitude: participants who have mean score of attitude scale towards STI 2.5 - 3.6

Positive Attitude: participants who have mean score of attitude scale towards STI 3.7 – 5

4.11. Data analysis

Data were transferred to STATA using a structured data collection Excel sheet from kobo toolbox. Analysis began with checking for missing values and outliers. There were no values missing at random and no significant outliers due to data entry errors. Summary of participants socio-demographic characteristics, substance use, risky sexual behaviors, EC use patterns, STI symptoms and risk perceptions were made using descriptive measures (mean, SD, frequency) and presented in tables. To categorize the amount of pocket money reported by participants, the data were divided into tertiles based on the distribution of responses.

Knowledge about STI and EC, perception towards STI risk and EC use and attitude towards STI and EC use were assessed as a composite variable by combining related variables. Knowledge was assessed by sum of correct answers to question (1 point per correct answer, 0 for incorrect/"don't know") calculated (Q30-35 with total scores out of 10 for EC, Q55-59 with total scores out of 15 for STI) and means of total scores of knowledge were derived and categorized into tertiles (33rd, 67th). Perception and attitude were assessed by measurement on 5-point Likert scale (Q36–40, Q41–45, Q60–64, Q65-69 with total scores of 25 each for perception of EC, perception of STI, attitude towards EC, Attitude towards STI) and reverse coding was done for negative items (Q44, Q45, Q63) and sum of the scales were calculated and means score of perception scale and attitude scale were derived and categorized according to Likert scale.

Bivariate logistic regression analysis was conducted to determine association between selected variables and EC use or STI status. Variables with $p < 0.2$ were included in the initial multivariate logistic regression and the initial model was refined and the model with better fit to dataset based on Akaike information criterion (AIC) was used. The final model has good predictive ability with Area under the curve (AUC) > 0.7 and also good sensitivity. Results were reported in the tables using AOR, CI (95%) and p-values. To examine the association between EC use and STI status, a multivariable logistic regression analysis using stepwise model building was done. The analysis comprised four logistic models: the first model was an unadjusted model followed by sequential addition of blocks of covariates in each model selected based on the study's theoretical framework. This methodological approach is a recommended practice in epidemiological research (73) and also validated by similar studies (74,75) and allows to evaluate how the EC use and STI association changes with progressive adjustment for potential confounders. The results were presented using Odds Ratio (OR), Standard error (SE) and P-value.

4.12. Ethical consideration

Ethical approval for the research was obtained from Addis Ababa University, College of Health Sciences, and School of Public Health Research Ethics Committee. An official letter from Addis Ababa University administration was obtained to ask for consent from AAU administration as well as from study participants. The purpose of the study, benefits and harm was explained to all study participants. In addition they were also informed that all of their responses are confidential and anonymous. Participants were informed that their participation was entirely voluntary. They could choose to skip any questions they did not wish to answer or withdraw from the study at any time.

4.13. Dissemination of Results

The result of the study will be disseminated to different organizations; AAU school of Public Health, Addis Ababa Health Bureau, and non-governmental organizations working for the improvement of students' health problems related to sexual practice and other reproductive health issues and possibly through publication.

5. Results

A total of 793 female regular undergraduate university students from selected departments were included in the study making the response rate 98.1%. The study's results are presented in six subsections, which describe the socio-demographic characteristics of the study participants, sexual behaviors, substance use and related behaviors, knowledge, perception and attitude towards EC, prevalence of EC use and its determinants, knowledge, perception and attitude towards STI, prevalence of STI and its determinants, and the association between EC use and STI status.

5.1. Socio-demographic characteristics of study participants

The age of participants ranged from 17 to 29 years, with a median of 20 years (IQR: 19–21). Monthly pocket money reported by students who claimed to have pocket money range from 150 to 25,000 birr, with a median of 3000 birr (IQR: 2000–4000). Majority of the participants were Orthodox Christians 552 (69.6%), single 682 (86%), residing in dormitory 526 (66.3%) and originally from urban areas 700 (88.2%) (Table 4).

Table 4 Socio- demographic and economic characteristics of female undergraduate students, Addis Ababa University, April, 2025

Socio-economic & demography characteristics (N= 793)	Frequency	Percent (%)
Age (Years)		
15-19	250	31.53
20-24	536	67.59
25-29	7	0.88
Year of study(years)		
Year I	264	33.29
Year II	180	22.7
Year III	205	25.85
Year IV	92	11.6
Year V	52	6.56
Marital status		
In a relationship	104	13.11
Married	7	0.88
Single	682	86
Religion		
Muslim	78	9.84
Orthodox	552	69.61
Protestant	138	17.4
Others	25	3.15
Current residence		
In campus	526	66.33
Out of campus alone/with friends	10	1.26
Out of campus with family	257	32.41
Residence of origin		
Rural	93	11.73
Urban	700	88.27
Pocket Money(ETB)		
No pocket money	90	11.35
<2000	283	35.69
2000-4000	189	23.83
>4000	231	29.13

5.2. Substance use and other related behaviors

Alcohol was the most reported substance (23%) followed by drugs (3.9%), cigarette use (3.2%), other tobacco products (2.7%) and Khat (1.5%). Wine, vape/e-cigarettes and marijuana was the most used type of alcohol, other tobacco products and drugs respectively. Other than one third of the participants who reported daily usage of Khat, participants who used the other substances reported rare or occasional use of the respective substances. Additionally, 11.6% of participants reported exposure to pornographic videos and 10.1% reported going to nightclubs with most reporting rare frequency (Table 5).

Table 5 Substance use and other related behaviors of female undergraduate students, Addis Ababa University, April, 2025

Substance		Substance use frequency		Substance Type	
Alcohol use (N=793)					
No	612 (77%)				
Yes	181 (23%)	Daily	4(2.2%)	Beer	77 (42.1%)
		Frequently	11(6.0%)	Wine	131 (71.6%)
		Occasionally	59 (32.2%)	Tella	49 (26.8%)
		Rarely	107 (58.5%)	Tej	23 (12.6%)
				Local Areke	17 (9.3%)
				Spirits	43 (23.5%)
Cigarette use (N=793)					
No	768 (96.8%)				
Yes	25 (3.15%)	Daily	5 (20%)		
		Frequently	6 (24%)		
		Occasionally	5 (20%)		
		Rarely	9 (36%)		
Other types of tobacco use (N=793)					
No	772 (97.3%)				
Yes	21 (2.65%)	Frequently	4(19.1%)	Vape	14 (66.7%)
		Occasionally	9 (42.8%)	Shisha	8 (38.1%)
		Rarely	8 (38.1%)	Snuff/suret	4 (19.0%)
				Chewing	1 (4.8%)
Khat use (N=793)					
No	781 (98.5%)				
Yes	12 (1.51%)	Daily	4 (33.3%)		
		Frequently	1(8.4%)		
		Occasionally	3 (25%)		
		Rarely	4(33.3%)		

Drug use (N=793)					
No	762 (96.09%)				
Yes	31(3.91%)	Daily	1(3.2%)	Marijuana	27 (87.1%)
		Frequently	6(19.3%)	Cocaine	4 (12.9%)
		Occasionally	10 (32.3%)	Cannabis	6 (19.4%)
		Rarely	14 (45.2%)	Ecstasy	6 (19.4%)
				Others	3 (9.7%)

5.3. Sexual behaviors

Of the total 793 participants, 304 (38.3%) students reported they were engaged in sexual activities: comprising 187 (23.5%) of them reporting vaginal intercourse (either exclusively or with other sexual activities) and 117 (14.8%) of them reporting only alternate sexual activities (anal/oral/outer course).

About thirty five percent of students who had sexual intercourse reported initiating sex before the age of 18. Age at sexual debut ranged from 12 to 22 years, with a median of 18 years (IQR: 17–19). Most participants (80.7%) reported their first sexual partner was a romantic partner and the top three common reasons for first sexual intercourse was personal desire (41.18%), partner pressure (27.8%) and peer pressure (16.57%).

Risky sexual behavior was found to be 92.4% among those who had engagement in any sexual activity. Most sexually active students (72.2%) reported having multiple sexual partners (median=2) over lifetime while only 18% had multiple sexual partner in the past year. In addition to this, 23% of students reported using alcohol or drugs before or during sexual activity, 68.4% had unprotected sexual activity and 9.21% of total participants experienced peer pressure to engage in sexual intercourse (Table 6).

Table 6 Sexual characteristics of female undergraduate students, Addis Ababa University, April, 2025

Characteristics	Frequency	Percent
Ever had sexual intercourse (N=793)		
No	606	76.42
Yes	187	23.58
Age at first sexual intercourse(n=187)		
< 18	66	35.3
≥ 18	121	64.7
Relationship with person having first sexual intercourse (N=187)		
Romantic partner	151	80.7
Casual relationship	25	13.4
Marital	6	3.2
One night stand	5	2.7
Reason for first sex(N=187)		
Personal desire	77	41.18
Partner pressure	52	27.8
Peer pressure	31	16.57
Obligated because of presents forwarded	14	7.49
Others (After taking drugs/ alcohol, For economic reasons,)	13	6.96
Sexual partner over lifetime (N=187)		
1	52	27.8
≥ 2	135	72.2
Sexual partner in the past 12 months (N=187)		
1	153	81.8
≥ 2	34	18.2
Use of alcohol or drugs before or during sexual activity (N=187)		
No	144	77
Yes	43	23
Sexual activity other than penetrative vaginal sexual intercourse (N=793)		
Dry sex/rubbing/outer course	142	17.9
Oral sex	70	8.8
Anal sex	54	6.8
Overall sexual activity(N=793)		
Only penetrative vaginal sexual intercourse	136	17.15
Only other sexual activities (anal sex, oral sex, outer course)	117	14.75
Both penetrative vaginal sexual intercourse and other sexual activities	51	6.43
Either penetrative vaginal sexual intercourse or other sexual activities	304	38.33
Peer pressure to have sexual intercourse (N=793)		
No	720	90.79
Yes	73	9.21

5.4. Knowledge, perception and attitude towards EC and prevalence of EC use and its determinants

5.4.1. Knowledge, perception and attitude towards EC

Of the total study participants, 81% (642) have heard about EC. Among the students who had awareness about EC, 63.3% of them reported media (TV, radio) as their source of information about EC, 35.3% of them misidentified injectable contraceptives and condoms as emergency contraceptives, 19.3% said they don't know when EC should be taken and another 11.1% reported EC should be used as a regular contraception. Of the total participants, 42% had low knowledge level but majority had positive perception and attitude towards EC (Figure 3).

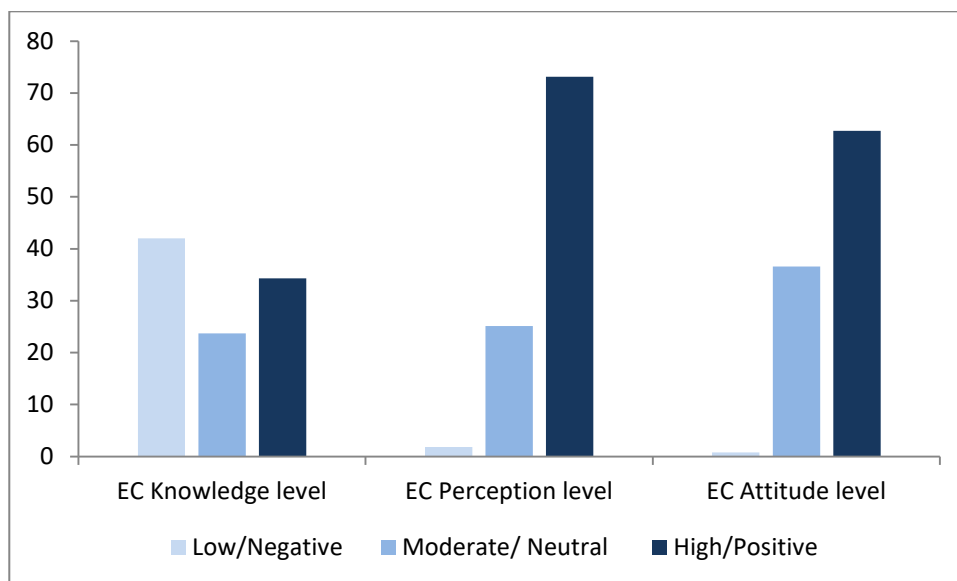


Figure 3 Knowledge, perception and attitude towards emergency contraceptive among female undergraduate students, Addis Ababa University, April, 2025

5.4.2. Prevalence of EC use

The prevalence of EC use in the past 12 months among female students who had any sexual activity was 52.3% (95% CI: 46.5 - 58). From those who reported using EC in the past 12 months, about eight in ten (81.1%) reported repeated use of EC. Majority of the participants using EC reported taking EC pills within 24 hours after unprotected sexual intercourse. Almost all (98%) of the females said their main reason to use any contraception was to prevent pregnancy. Unplanned sex and other sexual activities were the major reason identified for use of EC while not having sex and religious prohibition were reported as major reasons for not using

EC. Only 24.4% used regular contraception after EC use. Less than half of EC users (45%) reported condom use (Table 7).

Table 7 Emergency contraceptive use among female undergraduate students, Addis Ababa University, April, 2025

EC use characteristics	Frequency	Percent
EC use (N=793)		
No	625	78.8
Yes	168	21.2
EC use in 12 months (N=793)		
No	634	79.9
Yes	159	20.1
EC use frequency in 12 months (N=159)		
1	30	18.9
2	52	32.7
≥3	77	48.4
Time EC was taken (N=159)		
Within 24 hours after unprotected sex	103	64.8
Within 72 hours after unprotected sex	56	35.2
Reason for EC use (N=159)		
Unplanned sex	91	57.2
Other sexual activities like oral sex, dry sex...	45	28.3
Forced sex	17	10.7
Condom failure	15	9.4
Missed regular contraceptive	4	2.5
Use of regular contraceptives(RC) after EC use (N=159)		
No	121	76
Yes	38	24
Type of RC used after EOC use (N=38)		
Calendar/ rhythm method	12	31.6
Condoms	11	29
Withdrawal	12	31.6
IUCDs	1	2.6
Pills	2	5.2
Reason not to use EC (N=136)		
Do not have sex	89	53.6
Religious Prohibition	57	34.3
Fear of health risks (side effects, infertility,)	11	6.6
Unavailability of Methods	2	1.2
Fear of social stigma or judgment	2	1.2
Fear of providers	2	1.2
Others*	3	1.8

*- using other contraceptive methods, personal preference

5.4.3. Factors associated with EC use

Bivariate logistic regression was done to evaluate association of several independent variables with EC use prevalence. From the bivariate logistic regression socio-demographic variables, risky sexual behaviors, substance use and other related behaviors, attitude towards EC and STI and STI risk perception were found to have $p < 0.2$ and were included in the multivariate analysis. However, in multivariate analysis, only three factors, namely smoking cigarettes, number of sexual partners and attitude towards EC use had statistically significant association with EC use. Cigarette smoking students were more likely to use EC as compared to non-smokers (AOR = 1413.16, 95% CI: 2.12–942100, $p = 0.029$). Similarly, attitude towards EC use was associated with EC use, with a single increase in attitude score resulting in 1.23 times higher odds of using EC (AOR = 1.23, 95% CI: 1.03-1.46, $p = 0.019$). The other predictor was number of sexual partners, which shows with a single increase in number of sexual partner, the odds of using EC decreased by 0.51 times (AOR = 0.51, 95% CI: 0.34–0.76, $p = 0.001$) (Table 8).

Table 8 Factors associated with EC utilization among female undergraduate students, Addis Ababa University, April, 2025 (n=304)

Variables	EC Use		P-value	AOR	CI
	Yes(159)	No (145)			
Age (Mean age, in years)	20.65	20.50	0.282	1.23	0.84-1.78
Year of Education					
Year I	56	35	1	1	1
Year II	19	47	0.13	0.44	0.15-1.27
Year III	48	30	0.91	0.94	0.26-3.26
Year IV	25	20	0.95	0.95	0.18-4.78
Year V	11	13	0.11	0.21	0.03-1.47
Marital Status					
In relationship	31	37	1	1	1
Single	128	108	0.260	1.72	0.66-4.0
Living place					
In campus	92	93	1	1	1
outside campus	67	52	0.938	1.03	0.46-2.30
Alcohol use					
No	93	99	1	1	1
Yes	66	46	0.220	2.38	0.59-9.52
Smoking					
No	145	138	1	1	1
Yes	14	7	0.029	1413.5	2.12-942100

Going to Night Club					
No	126	125	1	1	1
Yes	33	20	0.678	1.42	0.26-7.49
Nº of Sexual Partner (mean)	2.25	2.62	0.001	0.51	0.34-0.76
Alcohol or Drug Use before or during sex					
No	83	61	1	1	1
Yes	38	5	0.488	1.85	0.32-10.5
Condom Use					
No	87	121	1	1	1
Yes	72	24	0.991	0.99	0.41-2.4
Age of sex debut					
<18 years	38	28	1	1	1
18 years and above	83	38	0.368	0.65	0.26-1.63
Attitude towards EC (mean)	20.44	19.66	0.019	1.23	1.03-1.46
Perception towards EC (mean)	20.8	19.99	0.527	0.95	0.83-1.09
Attitude towards STI (mean)	15.35	14.79	0.346	1.10	0.9-1.34
Perception towards STI (mean)	18.44	17.85	0.744	1.03	0.85-1.24

5.5. Knowledge, perception and attitude towards STI and prevalence of STI and its determinants

5.5.1. Knowledge, perception and attitude towards STI

Of the total study participants, 85.9% claimed they have heard about STI. Of those participants who had awareness about STIs, 32.5% reported using condom when possible and 15.3% believed using EC can prevent from contracting STIs. About one third of the participants had low STI knowledge level while more than half participants had moderate perception and positive attitude towards STIs (Figure 4).

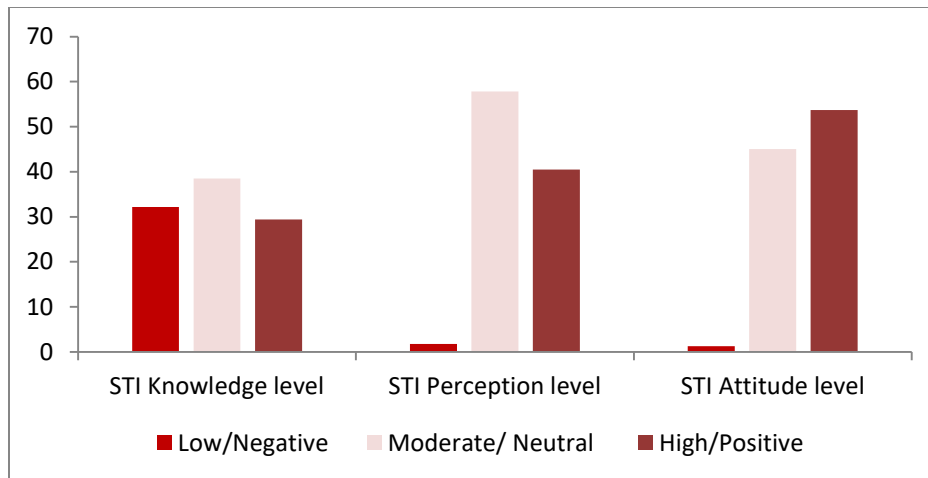


Figure 4 Knowledge, perception and attitude towards STI among female undergraduate students, Addis Ababa University, April, 2025

5.5.2. Prevalence of STI

Of the 793 participants, 145 (18.2%) participants reported as having experienced one or more of the STI symptoms in the past 12 months. Of these, 6 out of ten participants had two or more symptoms of STI. The most commonly reported STI symptoms were abnormal vaginal discharge (55%) and itching in the genital area (53%). Another 4.4% and 3.3% of students reported as having history of STI diagnosis in lifetime and in the past 12 months respectively. From the total participants, 156 students (19.67%, 95% CI: 16.96 - 22.61) students had self-reported STI symptoms or diagnosis. The prevalence of STI status was 43.7% (95% CI: 38 – 49.5) among female students who had engaged in any sexual activity. Prevalence of STI was 67.3% in EC users and 17.9% in non- EC users.

Regarding behaviors related with STI and HIV care and prevention among female students, only 31.1% went to get help for STI symptoms, while 68.9% didn't seek care mainly because their symptoms went away on their own (64%) or because they felt embarrassed (26.3%). The rate of HIV testing was low at 18%, but most who got tested received their results (91.5%). For prevention, most participants reported abstaining from sex (74.7%) and staying faithful to their partners (36.8%), but condom use among who had sexual activity was low at 31.5%, and only half of those who used condoms used it consistently. The biggest reasons for not using condoms were not being engaged in sexual activity, unavailability of condoms and partner refusal (Table 9).

Table 9 STI prevention methods among female undergraduate students, Addis Ababa University, April, 2025

Variables	Frequency	Percent
STI Diagnosis		
EC users	107	67.3
Non EC users	26	17.9
Seek medical care for STI symptoms (N=132)		
No	91	68.9
Yes	41	31.1
Reason for not seeking care (N=91)		
Symptoms resolved on their own	58	64
Embarrassment/shame	24	26.3
I didn't know where to go	8	9.7
VCT for HIV (N=793)		
No	650	82
Yes	143	18
VCT for HIV in 12 months (N=143)		
No	84	58.7
Yes	59	41.3
Receive result for HIV (N=59)		
No	5	8.5
Yes	54	91.5
Method used to prevent STI (N=793)		
Abstinence	607	76.6
Being faithful to a single partner	292	36.8
Consistent condom use	131	16.5
Regular testing for STIs	176	22.2
Condom use (N=304)		
No	208	64.5
Yes	96	31.5
Condom use frequency (N=96)		
Always	48	50
Most of the time	24	25
Sometimes	24	25
Reason for not using condom (N=208)		
I didn't engage in any sexual activity	109	52.4
Unavailability during sex	41	19.7
Partner refusal	35	16.8
Not effective	11	5.3
Reduced satisfaction	8	3.8
Being ashamed	3	1.4
Expensive	1	0.5

5.5.3. Factors associated with STI

We first conducted bivariate logistic regression to assess associations between socio-demographic, sexual, and behavioral factors with STI status. Variables showing associations with $p < 0.2$ in bivariate analysis were included in the final multivariable logistic regression model. From the multivariate analysis, only marital status remained significantly associated with STI status. Single participants had 4.88 times higher odds of STIs compared to those in relationships (AOR = 4.88, 95% CI: 1.97–12.00, $p = 0.001$), as presented in Table 10.

Table 10 Factors associated with STI Status among female undergraduate students, Addis Ababa University, April, 2025 (n=304)

Variables	STI status		P-value	OR	CI
	Positive (133)	Negative (171)			
Year of Education					
Year I	41	50	1	1	1
Year II	22	44	0.502	0.71	0.27-1.89
Year III	36	42	0.223	1.94	0.66-5.66
Year IV	23	22	0.599	1.37	0.42-4.45
Year V	11	13	0.480	0.64	0.19-2.18
Marital Status					
In relationship	23	45	1	1	1
Single	110	126	0.001	4.88	1.97-12
Alcohol Use					
No	78	114	1	1	1
Yes	55	57	0.342	1.6	0.6-4.25
Going to Night Club					
No	105	146	1	1	1
Yes	28	25	0.953	1.03	0.33-3.18
Number of Sexual partners (mean)	1.18	1.35	0.086	0.61	0.35-1.07
Peer pressure to engage in sexual activity					
No	99	147	1	1	1
Yes	34	24	0.156	2.02	0.76-5.35
Engaging in other sexual activities					
No	77	59	1	1	1
Yes	56	112	0.704	0.84	0.36-1.97
Condom Use					
No	84	124	1	1	1

Yes	49	47	0.285	0.64	0.28-1.44
Knowledge about STI (mean)	9.22	9.99	0.535	1.02	0.93-1.12
Attitude towards STI (mean)	14.79	15.31	0.851	0.98	0.8-1.19
Perception towards STI (mean)	17.86	18.39	0.730	1.02	0.87-1.20

5.6. Association between EC use and STI

Table 11 shows the effect of EC use on STI status across four logistic regression models. It starts with assessing the direct effect of EC use on STI status and then progressively adds demographic factors, substance use factors, and attitude and perception of STI risk and EC use as control variables. It is evident from the table that EC use is associated with a significantly higher odds of acquiring STI (OR= 7.48, SE=2.38, $p<0.001$). There is still strong association between EC use and STI after adjusting for control variables, with AOR of 7.68, 8.21, and 17.71 in models two, three, and four, respectively, with all values being significant. The effect size shows that the true association between EC use and STI status was masked by possible confounders. The high and significant OR after extensive adjusting can be an evidence of a strong positive association between EC use and STI status (Table 11).

Table 11 Association between EC use and STI among female undergraduate students, Addis Ababa University, April, 2025

	Block 1 Crude Model	Block 2 Demographic- Adjusted Model	Block 3 Behavior-Adjusted Model	Block 4 Full Model
EC use	7.48*** (2.38)	7.68*** (2.63)	8.21*** (2.93)	17.71*** (8.10)
Socio-Demographics				
Age		0.95 (0.12)	0.94 (0.13)	0.96 (0.14)
Year of Education				
2nd year		1.09 (0.54)	0.95 (0.49)	1.73 (1.05)
3rd year		1.13 (0.55)	0.95 (0.48)	1.56 (0.90)
4th year		1.72 (1.04)	1.57 (1.00)	1.55 (1.15)
5th year		2.73 (2.23)	2.14 (1.81)	1.29 (1.19)
Marital Status				
Single		1.69 (0.66)	1.75 (0.70)	1.87 (0.81)
Religion				
Muslim		1.92	1.48	1.24

	(2.98)	(2.52)	(2.18)
Orthodox	2.41	1.81	1.39
	(3.58)	(2.97)	(2.35)
Others	2.01	1.53	1.83
	(3.21)	(2.58)	(3.16)
Protestant	1.85	1.38	1.03
	(2.79)	(2.31)	(1.80)
Current Residence			
Outside campus	1.44	1.62	1.66
	(0.48)	(0.56)	(0.65)
Original Residence			
Urban	0.79	1.23	3.01
	(0.40)	(0.68)	(1.94)
Substance use			
Alcohol			
Yes		0.78	0.96
		(0.32)	(0.45)
Smoking			
Yes		0.46	0.17
		(0.47)	(0.21)
Khat			
Yes		0.72	0.84
		(0.72)	(0.99)
Drug use			
Yes		1.35	2.21
		(1.29)	(2.43)
Pornography			
Yes		1.52	1.64
		(0.65)	(0.80)
Night club			
Yes		1.78	2.71
		(1.00)	(1.83)
Peer pressure			
Yes		3.58 ^{**}	5.89 ^{**}
		(1.73)	(3.26)
SRH Literacy			
STI risk Attitude			0.95
			(0.09)
STI risk perception			1.03
			(0.09)
STI risk Knowledge			0.90
			(0.05)
EC use Knowledge			1.02
			(0.03)
EC use Attitude			0.71 ^{***}
			(0.07)
EC use Perception			0.91
			(0.08)

Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6. Discussion

This study examined prevalence of STI and its association with EC use among female students in AAU. The study found that 187 (23.6%) were sexually active while 117 (14.7%) were engaged in non-penetrative sexual activities including anal, oral sex, outer course. However, only a third of them had used condom during any sexual activity. Among those sexually active, 52.3% had EC use and of those, 81% had repeat EC use in the past 12 months. Prevalence of STI among female students was 43.7%. Those who depend on EC to avoid pregnancy were more likely to have encountered STI after adjusting for socio-demographic factors, substance use and attitude and perception towards EC use and STI.

This study found that 23.6% of the study participants were sexually active. This result is similar with other studies conducted among female university students (25,70). It is worrisome that even if nearly a quarter of the participants are sexually active, two-thirds of them did not use any protective method to prevent unintended pregnancy or STIs. The current study has captured the trendy shift in sexual practices among students from vaginal intercourse to other non-penetrative sexual activities as anal sex, oral sex and outer course so as to maintain virginity and avoid pregnancy. This trend could be the reason for low condom use as the students participating in these sexual activities may not perceive themselves to be at risk of contracting STIs.

The study showed that risky sexual behavior was very high (92.4%) among the students who were engaged in any sexual activity. This is a lot higher than what was seen in a cross-sectional study done across multiple universities in 2022 (19.5%) (41) and a systematic review which showed pooled prevalence of 41.6% (with a range of 23.3% to 60.9%) (11). These can be due to differences in sample size, study population and operational definition of RSBs but this value is still alarming as it indicates almost all students who were engaged in any sexual activity were at risk of unintended pregnancy and STIs including HIV as they had risky sexual behaviors.

Early sexual debut, one of the risky sexual behaviors, was found to be higher in this study (35.2%) compared to a systematic review done in 2020 among students in Ethiopia (44). This is because unlike the systematic review, the current study was conducted among female students only and early sexual initiation is more common in females (43). Although 72% reported having multiple sexual partners in lifetime, only 18% reported having multiple sexual partners in the past one year and this change could be due to transition to monogamous stable relationships.

Even though the prevalence of multiple sexual partners in a year is relatively lower than similar studies conducted among the youth (40,41), the high lifetime prevalence holds exposure to STI. On the other hand, unprotected sex, either by not using condoms at all or using them inconsistently, was found to be higher (84.2%) in this study compared to a meta-analysis done among youth in Ethiopia (54%, with a range from 42% – 66%) (20) and a cross-sectional study among university students across Ethiopia (69.3%) (41). Partner refusal, unavailability during sex, doubting its effectiveness, reduced satisfaction and not considering other sexual activities as risky as vaginal intercourse was seen as reason not use protection during sexual activities among female students in this study.

The prevalence of EC use in 12 months was found to be 52.3% among female students involved in sexual activities. This is higher than findings among university students in Ghana and Spain which was 48% and 40% respectively (34,35). The differences might come from varying sexual behaviors and knowledge about sexual health among female students across countries. It is also higher than the findings from other universities in Ethiopia (25,30,57,58,63). However its less than the findings seen in Private Universities in Nekemte (61.8%), Aksum University (62.6%), and Arba Minch University (78%) (12,31,68). This could be due to positive behavioral changes towards proper use of contraceptives. The prevalence of EC use among female students at Addis Ababa University has also increased over the years, with reported rates of 5% in 2005, 30.7% in 2010, 97.9% in 2016, and 24.5% in 2022 (56,59,60,70). This variation may be attributed to differences in the risk populations used to calculate prevalence. Half of the students engaged in sexual activity used EC for pregnancy prevention and eight of ten students used it repeatedly in a year. This can show the increasing use and acceptance of EC among female students and their preference to use EC over dual protection methods despite the high prevalence of risky sexual behaviors.

This study also revealed that smoking, number of sexual partners and attitude towards EC was associated to EC use. The multiple regression analysis showed that students who smoke cigarettes were more likely to use EC as compared to students who don't smoke cigarettes. Smoking could be linked to other substance use such as alcohol or drug which exposes to unprotected sex leading to EC use as seen in another study in Denmark (76). But the very large OR and wide confidence interval seen in this association makes it very difficult to interpret this

result in this study. Better attitude towards EC was associated with increased odds of using EC use. This finding shows that students who had positive views on EC were more likely to use it and this finding is supported by another study in Arba Minch (77). The single increase in number of sexual partners was associated with decreased odds of EC use by 49%. This finding is unexpected since it's assumed that people having multiple sexual partners would likely have more need for EC use but the finding could be also be due to preference for other regular contraceptive methods as seen in this study where condom use was higher among students with multiple sexual partner than those with one sexual partner.

The prevalence of STI in 12 months among female students who were engaged in sexual activities was 43.7% (95% CI: 38 – 49.5). This result is higher than the reports from studies done in Ghana and Spain among female university students which showed 22.7% and 4% of STI prevalence (34,35). This variation could be due to differences in operational definition of STIs, sample size and better sexual reproductive health practices. It's also way higher than what was reported from Bahir Dar and Gondar University (6.4%), Gondar University (18%), Addis Ababa University (18%, 2016), Private universities in Nekemte town (19.4%), and Ambo University (22.8%) (27,30,31,65,69). This can be because our study included all participants who had any sexual activity in addition to penetrative vaginal intercourse; it has more inclusive operational definition of STIs and a larger sample size. This finding is expected considering the low use of condom and the high prevalence of risky sexual behaviors among the students who were engaged in sexual activities.

The study also indicated that being single was found to have significant association with STI status. Single students had nearly 5 times higher odds of acquiring STIs compared to those in relationships (OR=4.88, 95% CI: 1.97-12, $p=0.001$) which is likely due to having multiple sexual partners or inconsistent use of protection. This finding is also supported by another similar study (78). On the other hand, using alcohol and having peer pressure showed higher odds of STIs and condom use showed lower odds of STIs but these associations were not statistically significant in this study.

This study revealed emergency contraceptive use has a strong association with STIs as EC users have higher odds of acquiring STIs with odds ratios rising from 7.5 in unadjusted block to 17.7 in the fully adjusted model. This suggests that EC use is not just a correlate but a strong marker

of STI exposure, likely reflecting there are risky sexual behaviors as unprotected sex where EC is used as pregnancy prevention without concurrent use of STI prevention method. This finding is supported by a study in Ghana which showed ECP users had 3.8 times higher odds of contracting STI than non EC users (35).

7. Strengths and Limitations

Strength of the study

The first strength of this study resides in the sample size and high response rate. The study has a large sample size that increases the statistical power of the study and provides better model stability. The robust sampling strategy gives the sample a better representativeness of the population under study and thus better generalizability of study outcome. In addition, the depth and thoroughness of the questionnaire makes the study able to provide comprehensive information about the question of interest. Furthermore, the strong internal validity of the questionnaire after pilot study makes the questionnaire reliable.

Limitation of the study

There are several limitations in this study. The first limitation is from the unmeasured confounders such as partner's sexual behavior that can significantly affect the association between EC use and STI status. The second limitation arises from the sensitivity of reproductive health which leads to unreliability in the response provided by the participants due to social desirability bias. This can be seen in the wide confidence intervals of effect measures. The third limitation of the study is the inability of the chosen research design to show temporal relation and the possibility of recall bias.

8. Conclusion

This study examined the prevalence of sexually transmitted infections (STIs) and its association with emergency contraceptive (EC) use among female undergraduate students at Addis Ababa University. The results show high EC use and STI rates. Over half of the students, 52.3%, reported using EC in the past year, with 81% using it repeatedly. This suggests that many rely on EC as their primary contraception method. Only 31.5% of these students used protection during sexual activity consistently, indicating they were more concerned about pregnancy than STIs. The STI prevalence was 43.7%, and even higher, at 67.3%, among those who used EC. Despite having high knowledge of STIs, applying prevention methods for STIs were low. The strong association between EC use and STI shows EC use harbors unprotected sex and risky sexual behaviors.

9. Recommendation

The Federal Ministry of Health and Universities should strengthen university campus clinics and youth friendly services to provide care and services tailored to the needs of the students in terms of judgment free counseling; free condom provision in more accessible and preferable areas for students; integrate STI testing with existing counseling sessions and reproductive health services.

The Ministry of Education and Non-Governmental Organizations should provide comprehensive reproductive and sexual health education which gives awareness about both STI and pregnancy prevention, overall reproductive and sexual health, negotiation skills through outreach, existing youth, and other University clubs.

This study gives quantitative exploration, and future researchers should explore barriers at various levels to get deep insight into why EC is more preferred than condom and other contraceptive methods and factors that link EC use and STI using qualitative and longitudinal research.

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ANNEX

Annex I: Study Information sheet, consent form and questionnaire (English)

Study Title: Prevalence of Sexually Transmitted Infections and its Association with Emergency Contraceptive Use among Regular Female Students at Addis Ababa University

Introduction: You are invited to participate in a research study Prevalence of Emergency Contraceptive Use and Its Association with Sexually Transmitted Infections among Regular Female Students at Addis Ababa University. This study aims to identify the correlation between patterns of emergency contraceptive use to sexually transmitted infections among university students.

Purpose of the Study: The purpose of this study is to assess if repeated and sole use of emergency contraceptives increases risk of sexually transmitted infections among female regular undergraduate students at Addis Ababa University. By understanding the correlation between the pattern of emergency contraceptive use and sexually transmitted infections, we aim to identify areas for improvement and develop strategies to enhance comprehensive reproductive and sexual health education.

Study Procedures: All of the questions are filled in and completed by students. The English version of the questionnaire first be translated to Amharic language and will be provided to the student to answer the questions. The finished questionnaire will then be collected by the data collectors. It only takes you 20 to 25 minutes to finish the whole questionnaire.

Confidentiality: Your participation in this study will be kept strictly confidential. Please do not write your name or any identification and provide your honest answers. The information that you provide during the study will be kept confidential.

Voluntary Participation: Participation in this study is entirely voluntary, and you have the right to withdraw at any time without providing a reason. Your decision to participate or withdraw will not have any impact on the services you receive at Addis Ababa University.

Benefits and Risks: While there may not be any direct benefits to you as a participant, your involvement in this study will contribute to improving the quality of reproductive and sexual health education and services. But some of the questions are very personal questions that some people find it difficult to answer. You are not obligated to answer any question that you are not willing to respond. If you feel any discomfort with the question, it is your right to drop it at any time you want. You may even decide not to engage in this study from the very beginning. If you have any questions, or concerns, or would like further information about the study, please feel free to contact the researcher

Contact Information: Rediet Mesfin, Tel: +251920032378, Email: redietmesfin@gmail.com

Written Consent form

By agreeing to participate in this study, I acknowledge that I have read and understood the information provided in this participant information sheet. I consent to the use of my data for research purposes and I confirm this with my signature. Thank you for considering participation in this study. Your contribution is greatly appreciated.

Signature: _____

Date: _____

English Questionnaire

Prevalence of Sexually Transmitted Infections and its Association with Emergency Contraceptive Use among Regular Female Students at Addis Ababa University

Introduction: - This is the English version of the questionnaire, which is divided into five parts. Each question comes with a response column where you can circle your answer or write in the space provided. Please take your time, read carefully, and answer honestly. Your responses will stay completely confidential and there is no need to include any personal details like your name or phone number. Thank you for your participation.

Part one: Socio- demographic characteristics among female undergraduate students in AAU

This part inquires about your personal background, such as age, education, marital status, and living conditions.

S.No	Questions	Response	Skip
1	How old are you? (in completed full years)	_____ years	
2	What is your Department?	_____	
3	What is your current year of study?	1. 1st year 2. 2nd year 3. 3rd year 4. 4th year 5. 5th year	
4	What is your current marital status?	1. Single 2. Married 3. Divorced 4. In a relationship	
5	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Other (Specify).....	
6	Do you have pocket money? (Money given by family, partner or other associates for expenses)	1. Yes 2. No	If No, skip to Q8
7	If so, How much is your monthly pocket money?	_____ Birr	
8	Where do you live now?	1. In campus 2. Out of campus with family 3. Out of campus alone 4. Out of campus with friends	
9	Where was your residence of origin? (the residence from where you initially came to this university)	1. Urban 2. Rural	

Part two: Behavioral factors among female undergraduate students of AAU

This part inquires about your behaviors related to alcohol, drug use, smoking, and other activities you may have engaged in during the past 12 months.

S.No	Questions with responses	Questions with responses	Questions with responses	Skip
10	Have you ever used alcohol in the past 12 months? 1. Yes 2. No	10.1. If yes, How often did you drink alcohol? 1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never	10.2. What types of alcohol do you usually consume? <i>(select all that apply)</i> 1. Beer 2. Wine 3. Tella 4. Tej 5. Local Areke 6. Spirits (Whiskey, Vodka, Gin, Tequila...)	
11	Have you smoked cigarettes in the past 12 months? 1. Yes 2. No	11.1. If Yes, How often did you smoke in the last 12 months? 1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never		
12	Have you smoked or use any other types of tobacco in the past 12 months? 1. Yes 2. No	12.1. If Yes, How often did you use it in the past 12 months? 1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never	12.2. What types of tobacco do you use? <i>(select all that apply)</i> 1. Snuff/Suret 2. Shisha 3. Vape or e - cigarette 4. Pipe 5. Chewing tobacco	
13	Have you chewed khat in the last 12 months? 1. Yes 2. No	13.1. If yes, How often did you chew khat in the past 12 months? 1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never		
14	Have you used or tried drugs in the past 12 months? 1. Yes 2. No	14.1. If yes, How often did you use these drugs in the past 12 months? 1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never	14.2. Which of the following drugs have you tried? <i>(select all that apply)</i> 1. Ganja/Marijuana/weed 2. Cocaine 3. Heroin 4. Cannabis 5. Ecstasy 6. Other.....	

S.No	Questions	Response	Skip
15	Do you feel sleeplessness after using any of these substances?	1. Yes 2. No	If No, skip to Q17
16	If Yes to Q20, what do you do to overcome this sleeplessness?	1. Drink alcohol 2. Take sleeping pills orally 3. Inject sleeping drugs 4. Do nothing 5. Other (specify): _____	
17	Have you ever watched pornographic videos in the past 12 months?	1. Yes 2. No	If No, skip to Q19
18	If Yes, How often did you watch in the past 12 months?	1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never	
19	Do you ever go to night clubs or parties where people dance in the past 12 months?	1. Yes 2. No	If No, skip to Q21
20	If Yes, How often did you go in the past 12 months?	1. Daily or almost daily 2. Frequently (weekly) 3. Occasionally (monthly or less) 4. Rarely (once or twice) 5. Almost never	

Part three: Sexual history and behavior among female undergraduate students in AAU

This part inquires about your sexual experiences, condom use, and any related behaviors.

S.No	Questions	Response	Skip
21	Have you ever had sexual Intercourse?	1. Yes 2. No	If No- skip to Q 28
22	How old were you when you have your first sexual intercourse?	Age _____	
23	How would you describe your relationship with the person you had your first sex with?	1. Marital 2. Romantic partner 3. Casual relationship 4. One night stand 5. Other (specify).....	
24	What was your reason for the initiation of sex (what was the reason for you to start sex then?)	1. Personal desire 2. Peer pressure 3. Partner pressure 4. Obligated because of presents forwarded 5. For economic reasons 6. Under alcohol intoxication 7. After taking drugs 8. Other (specify).....	
25	Thinking back over your lifetime until now, with how many partners have you had sex with?	_____ Partners	

26	How many partners have you had sex with in the past 12 months?	_____ Partners	
27	Have you ever consumed alcohol or drugs before or during sexual activity?	1. Yes 2. No	
28	Have you ever engaged in any sexual activity that does not involve penetration (penetrative vaginal sexual intercourse)? Select all that apply	1. Oral sex 2. Anal sex 3. Dry sex/rubbing/outer course 4. Never	
29	Do you feel any pressure from friends to have sexual intercourse?	1. Yes 2. No	

Part four: Knowledge, attitude, perception and practice towards emergency contraceptives among female undergraduate students in AAU

This part inquires your knowledge, perceptions, and experiences with emergency contraceptives, including access and usage.

Section one: Knowledge of emergency contraceptives among female undergraduate students in AAU

S.No	Questions	Response	Skip
30	Have you ever heard about emergency contraceptives (commonly known as post pill)?	1. Yes 2. No	If No, skip to 36
31	From where did you get information about emergency contraceptives? (Multiple responses possible)	1. Health workers 2. Friends/Peers 3. Media (TV, radio) 4. Other (specify)	
32	What type of emergency contraceptives do you know? (Multiple responses possible)	1. Pills 2. IUCDs(intra uterine contraceptive device) 3. Injectable 4. Other (specify)	
33	Do you know where to obtain emergency oral contraception? [Multiple responses Possible]	1. Hospitals 2. Health Centers 3. Private clinics 4. Pharmacy 5. Other (specify)_____	
34	When do you think emergency contraceptives should be used?	1. After unprotected sexual intercourse 2. When unwanted pregnancy occurred 3. As a regular method of contraception 4. Don't know 5. Other (specify)	
35	When do you think emergency contraceptive pills are effective?	1. Only within 24 hours after unprotected sex 2. Within the first 72 hours after unprotected sex 3. Within the first 5 days after unprotected sex 4. Don't know	

Section two: Perception towards emergency contraception among female undergraduate students in AAU

Now, I would like to ask about your thoughts on emergency oral contraceptives. For each statement, please show how much you agree or disagree by marking an 'X' in the box that best matches your opinion: Strongly disagree, Disagree, Neutral, Agree, Strongly agree.

S. №		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
36	Unintended pregnancy is a serious concern for young females as it can lead to significant health, social, and financial challenges over time.					
37	Any sexually active young female can experience contraceptive failure or unprotected sex, which may lead to unintended pregnancy at any time.					
38	Using emergency contraceptive pills correctly and on time is an effective way to prevent unintended pregnancy after unprotected sex or contraceptive failure.					
39	Emergency contraceptive pills do not protect against sexually transmitted infections or HIV, so other protection methods are still necessary whenever engaging in sex.					
40	I am confident that I can obtain and correctly use emergency contraceptive pills when needed.					

Section three: Attitude towards emergency contraception among female undergraduate students in AAU

Please read the statement and indicate the choice that represents your attitude as indicated in the column to the right of the statement indicated as: strongly agree, agree, neutral, disagree or strongly disagree.

S.№		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
41	If I were in a situation requiring emergency contraception, such as contraceptive failure or unprotected sex, I would be willing to use emergency contraceptive pills.					
42	Using emergency contraception after unprotected sex helps prevent pregnancy if taken on time.					
43	Emergency contraceptives should be made readily available to all females in pharmacies and healthcare facilities whenever needed.					
44	Women who use emergency contraceptives do not need other regular contraceptive methods for pregnancy prevention.					
45	Frequent use of emergency contraceptives does not have any negative health effects over time.					

Section four: Practice of emergency contraception among female undergraduate students in AAU

S.№	Questions	Response	Skip

46	Have you ever used emergency contraceptive pills?	1. Yes 2. No	If No, skip to 54
47	Have you used emergency contraception in the past 12 months?	1. Yes 2. No	If No, skip to 49
48	If yes, how many times have you used emergency contraception in the past 12 months?	_____Times	
49	Now think about the last time you used emergency contraceptive pills, when did you take them?	1. Within 24 hours after unprotected sex 2. Within 72 hours after unprotected sex 3. Within 5 days after unprotected sex 4. Others specify_____	
50	Why did you use emergency contraceptive? (Check all that apply)	1. Missed regular contraceptive 2. Condom failure 3. Unplanned sex 4. Forced sex 5. Other sexual activities like oral sex, dry sex, 6. Other (specify) _____	
51	After you used emergency contraception, did you start using a regular method of birth control?	1. Yes 2. No	If No, skip to 53
52	If yes, which method do you start?	1. Pills 2. Injectable 3. Condoms 4. Implants 5. IUCDs (intra uterine contraceptive device) 6. Withdrawal 7. Calendar/ rhythm method 8. Others(specify) _____	
53	What is your main reason to use any contraceptive methods?	1. Preventing pregnancy 2. Preventing sexually transmitted infections 3. Partner request 4. Others (specify) _____	
54	What are the reasons for you to not use emergency contraceptive methods? (Select all that apply)	1. Religious prohibition 2. Fear of providers 3. Unavailability of Methods 4. Fear of social stigma or judgment 5. Fear of health risks (side effects, infertility, contracting HIV/AIDS, ...) 6. Do not have sex 7. Others (specify) _____	

Part five: Knowledge, attitude, perception and practice towards sexually transmitted infections among female undergraduate students in AAU

This part inquires about your understanding, attitudes, and practices regarding sexually transmitted infections (STIs), as well as your experiences with sexually transmitted infections prevention and care.

Section one: Knowledge of sexually transmitted infections among female undergraduate students in AAU

S.No	Questions	Response	Skip
55	Have you ever heard about sexually transmitted infections?	1. Yes 2. No	If No, skip to Q60
56	What are the symptoms of sexually transmitted infections? (Multiple responses possible)	1. Genital discharge 2. Genital itching 3. Genital sores/ulcers 5. Painful urination itching 6. Lower abdominal pain 7. Other (specify)	
57	What factors do you think increases risk of contracting sexually transmitted infections? (Multiple responses possible)	1. Multiple sexual partners 2. Unprotected sex 3. Inconsistent condom use 4. Partner's risky sexual behavior 5. Substance use (alcohol, Khat, smoking,) 6. Other (specify)	
58	How can one prevent contracting sexually transmitted infections? (Multiple answers possible)	1. By abstinence 2. By having only one sexual partner 3. By using condom when possible 4. By using condom in every sexual activity 5. By regular testing for sexually transmitted infections 6. By using emergency contraceptives 7. Other (specify)	
59	Do you know where to access sexually transmitted infections testing or treatment services?	1. Yes 2. No	

Section two: Perception of STIs among female undergraduate students in AAU

S.No		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
60	I always think that I am at risk of contracting a sexually transmitted infection (STI) whenever engaging in unprotected sex with my sexual partner.					
61	Sexually transmitted infections can lead to serious health complications if left untreated over time.					
62	Using condoms during every sexual encounter, even with a regular sexual partner, is necessary to reduce the risk of contracting sexually transmitted					

	infections.					
63	I would hesitate to get tested for sexually transmitted infections, even when I suspect that I have encountered STIs because I worry about what my friends/family/people who saw me might think of me					
64	I can successfully use condoms whenever I have sexual encounters with a sexual partner to protect myself from sexually transmitted infections.					

Section three: Attitudes towards STIs among female undergraduate students in AAU

S.No		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
65	I feel confident discussing sexually transmitted infection prevention methods with my sexual partner(s) before engaging in sexual activity.					
66	I believe I can control my risk of contracting sexually transmitted infection through my personal choices and behaviors.					
67	I am satisfied with the availability of sexually transmitted infection testing and treatment services on my campus or in my local area when needed.					
68	I believe it is important to get tested for sexually transmitted infections regularly, even if I do not have symptoms, to ensure early detection and treatment.					
69	Using condoms consistently is an effective way to prevent the transmission of sexually transmitted infections.					

Section four: Practice towards sexually transmitted infections among female undergraduate students in AAU

S.No	Questions	Response	Skip
70	Have you experienced any of the following symptoms in the past 12 months? (Check all that apply)	1. Abnormal vaginal discharge 2. Itching in the genital area 3. Genital sores/ ulcers 4. Painful urination 5. Lower abdominal pain 6. No symptoms	If NO, skip to 73
71	If you had symptoms, did you seek medical care?	1. Yes 2. No	If yes, skip to 73

72	If no, why did you not seek medical care?	1. Symptoms resolved on their own 2. Embarrassment/shame 3. I didn't know where to go 4. Other (specify): _____	
73	Have you ever been diagnosed with sexually transmitted infections?	1. Yes 2. No	
74	Have you been diagnosed with sexually transmitted infections during the past 12 months?	1. Yes 2. No	
75	Have you ever under gone the voluntary counseling and testing for HIV (VCT), or have you ever had an HIV test?	1. Yes 2. No	If No-skip to 78
76	If 'Yes' to Q75, Did you have your HIV test in the past 12 months?	1. Yes 2. No	
77	If 'Yes' to Q75, I don't want to know the results, but did you get the results of your test?	1. Yes 2. No	
78	What do you do to prevent yourself from contracting sexually transmitted infections? (Multiple responses possible)	1. Abstinence 2. Being faithful to a single partner 3. Consistent condom use 4. Regular testing for sexually transmitted infections 5. Other (specify) : _____	
79	Have you/your partner ever used condom during sexual activities?	1. Yes 2. No	If No-skip to 81
80	If "yes" to Q79, How often do you use a condom with your partner?	1. Sometimes 2. Most of the time 3. Always	
81	If "No" to Q 79, what was your reason for not using condom?	1. It's expensive 2. Being ashamed 3. Unavailability during sex 4. Reduced satisfaction 5. Partner refusal 6. Not effective 7. I didn't engage in any sexual activity	
82	How genuine do you feel your responses were in this questionnaire?	1. Very genuine 2. Somewhat genuine 3. Neutral 4. Somewhat dishonest 5. Very dishonest	

Annex II: Information sheet, Consent form and Questionnaire (Amharic Version)

መረጃ መስጫ ገጽ

የጥናት ርዕስ:- ድንገተኛ የእርግዝና መከላከያ ዘዴ እና በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች ትስስር በአዲስ አበባ ዩኒቨርሲቲ ሴት መደበኛ የመጀመሪያ ዲግሪ ተማሪዎችላይ

መግቢያ:- በድንገተኛ የእርግዝና መከላከያ አጠቃቀም እና በጾታዊ ግንኙነት የሚተላለፉ በሽታዎች ትስስር በአዲስ አበባ ዩኒቨርሲቲ የመጀመሪያ ዲግሪ ሴት ተማሪዎች መካከል ያለውን በሚመረምር የምርምር ጥናት እንድትሳተፉ ተጋብዘዋል። ይህ ጥናት በዩኒቨርሲቲ ተማሪዎች መካከል በድንገተኛ የወሊድ መከላከያ አጠቃቀም እና በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች መካከል ያለውን ትስስር ለመለየት ያለመ ነው።

የጥናቱ ዓላማ:- የዚህ ጥናት ዓላማ ድንገተኛ የወሊድ መከላከያ መድሃኒቶችን ደጋግሞ መጠቀም በአዲስ አበባ ዩኒቨርሲቲ የመጀመሪያ ዲግሪ ሴት ተማሪዎች በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎችን የመጋለጥ እድልን ይጨምራል የሚለውን ለመገምገም ነው። በድንገተኛ የእርግዝና መከላከያ አጠቃቀም እና በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች መካከል ያለውን ዝምድና በመረዳት፣ መሻሻል ያለባቸውን ቦታዎች በመለየት አጠቃላይ የስነ-ተዋልዶ እና የጾታዊ ጤና ትምህርትን ለማሳደግ ስልቶችን ለመንደፍ ዓላማ እናደርጋለን።

የጥናት ሂደቶች:- ሁሉም ጥያቄዎች በተማሪዎች የተሞሉ እና የተሟሉ ናቸው። የመጠይቁ የእንግሊዘኛ ቅጂ በመጀመሪያ ወደ አማርኛ ቋንቋ ይተረጎማል እና ለተማሪው ለጥያቄዎቹ መልስ ይሰጣል። የተጠናቀቀው መጠይቅ በመረጃ ሰብሳቢዎች ይሰበሰባል። ሙሉውን መጠይቁን ለመጨረስ ከ20 እስከ 25 ደቂቃዎች ብቻ ነው የሚፈጅበት።

ምስጢራዊነት:- በዚህ ጥናት ውስጥ ያለዎት ተሳትፎ በጥብቅ በሚስጥር ይጠበቃል። እባክዎን ስምዎን ወይም ማንኛውንም መታወቂያ አይጻፉ እና ትክክለኛ መልሶችዎን ይስጡ። በጥናቱ ወቅት የሚያቀርቡት መረጃ በሚስጥር ይጠበቃል።

በፈቃደኝነት ተሳትፎ:- በዚህ ጥናት ውስጥ መሳተፍ ሙሉ በሙሉ በፈቃደኝነት ላይ የተመሰረተ ነው እና በማንኛውም ጊዜ ያለምክንያት የመውጣት መብት አለዎት ለመሳተፍ ወይም ለመልቀቅ ውሳኔዎ በአዲስ አበባ ዩኒቨርሲቲ በሚያገኙት አገልግሎት ላይ ምንም አይነት ተጽእኖ አይኖረውም።

ጥቅማጥቅሞች እና አይደጋገሙት:- እንደ ተሳታፊ ለእርስዎ ምንም አይነት ቀጥተኛ ጥቅም ላይኖር ይችላል፤ በዚህ ጥናት ውስጥ መሳተፍዎ የስነ ተዋልዶ እና የወሊድ ጤና ትምህርት እና አገልግሎቶችን ጥራት ለማሻሻል አስተዋፅኦ ያደርጋል። ነገር ግን አንዳንድ ጥያቄዎች አንዳንድ ሰዎች ለመመለስ የሚከብዱባቸው በጣም ግላዊ ጥያቄዎች ናቸው። ምላሽ ለመስጠት ፈቃደኛ ያልሆኑትን ማንኛውንም ጥያቄ ለመመለስ አይገደዱም። በጥያቄው ላይ ምንም አይነት ምሾች ካልተሰማዎት በፈለጉት ጊዜ መተው መብትዎ ነው። ገና ከመጀመሪያው ጀምሮ በዚህ ጥናት ውስጥ ላለመሳተፍ ሊወስኑ ይችላሉ።

ማንኛቸውም ጥያቄዎች፣ ወይም ስጋቶች፣ ወይም ስለ ጥናቱ ተጨማሪ መረጃ ከፈለጉ፣ እባክዎን ተመራማሪውን ለማነጋገር ነፃነት ይሰጣል።

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የስምምነት ቅጽ

በዚህ ጥናት ለመሳተፍ በመስማማት በዚህ ተሳታፊ የመረጃ ወረቀት ላይ የቀረበውን መረጃ እንዳይበብኩ እና እንደተረዳሁ አምኜ እንደተቀበልኩት በፊርማዬ አረጋግጣለሁ። ለምርምሩ ሲባል ማንነቴ ሳይጠቀስ የምስጠውን መረጃ እንድጠቀሙበት እስማማለሁ። በዚህ ጥናት ለመካፈል ስለተባበራችሁን እናመሰግናለን ። የበረከታችሁት አስተዋጽኦ በጣም ያደንቃል ።

ፊርማ:- _____

ቀን:- _____

የአማርኛ መጠይቅ

የድንገተኛ የእርግዝና መከላከያ አጠቃቀም እና በግብረ ሥጋ ግንኙነት ከሚተላለፉ ኢንፌክሽኖች ጋር ያለው ግንኙነት በአዲስ አበባ ዩኒቨርሲቲ በመደበኛ የመጀመሪያ ዲግሪ ሴት ተማሪዎች

መግቢያ፡ - ይህ መጠይቁ የአማርኛ ቅጂ ነው ። አምስት ክፍሎች ያሉት ሲሆን ለአያንዳንዱ ጥያቄ፣ ለምሳሌ አምድ አለ። እባክዎን ጥያቄዎችን በጥንቃቄ ያንብቡ እና የመረጡትን ቁጥር በመክበብ ትክክለኛ መልስዎን ይስጡ እና መልሶችዎን በተጠቀሰው ቦታ ያስቀምጡ። እባክዎ ጊዜ ወስደው በጥንቃቄ ያንብቡ እና በሐቀኝነት ይመልሱ። የእርስዎ ምላሾች ሙሉ በሙሉ ሚስጥራዊ ሆነው ይቆያሉ፤ ስለዚህ እባክዎ እንደ ስም ወይም ስልክ ቁጥር ያሉ የግል ዝርዝሮችን አያካትቱ።

ለተሳትፎዎ እና መሳገፍትዎን።

ክፍል አንድ፡ በአክዩ ውስጥ የሴት የቅድመ ምረቃ ተማሪዎች ማህበራዊ-ሰነ-ሕዝብ ባህሪያት

ይህ ክፍል እንደ እድሜ፣ ትምህርት፣ የጋብቻ ሁኔታ እና የኑሮ ሁኔታ ያሉ የግል ዳራዎችን ይጠይቃል።

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝለል
1	እድሜሽ ስንት ነው? (በሙሉ ዓመታት)	_____ ዓመታት	
2	የትምህርት ክፍልሽ ምንድን ነው?	_____	
3	የስንተኛ አመት ተማሪ ነሽ?	1 ኛ ዓመት 2 ኛ አመት 3 ኛ ዓመት 4 ኛ ዓመት 5 ኛ ዓመት	
4	አሁን ያለሽበት የትዳር ሁኔታ ምን ዓይነት ነው?	1. ያላገባ 2. ያገባ 3. የተፋታ 4. በግንኙነት ውስጥ	
5	ሃይማኖትሽ ምንድን ነው?	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ (ይግለጹ)	
6	የኪስ ገንዘብ (ከቤተሰብ፣ አጋር ወይም ሌሎች ለወጪዎች የሚሰጥ ገንዘብ) አለሽ?	1. አዎ 2. አይ	አይ ከሆነ፣ ወደ Q8 ይዝለሉ
7	በወር ምን ያህል የኪስ ገንዘብ ታገኛለሽ?	_____ ብር	
8	በአሁን ሰዓት የመኖሪያ አድራሻሽ የት ነው?	1. በግቢው ውስጥ 2. ከቤተሰብ ጋር ከግቢ ውጪ 3. ለብቻ ከግቢ ውጪ 4. ከጓደኞች ጋር ከግቢ ውጭ	
9	ዩኒቨርሲቲ ከመግባትሽ በፊት የምትኖሪው የት ነበር?	1. ከተማ 2. ገጠር	

ክፍል ሁለት፡ በአክዩ የመጀመሪያ ዲግሪ ሴት ተማሪዎች መካከል ያለው ባህሪ

ይህ ክፍል ባለፉት 12 ወራት ውስጥ ከአልኮል፣ ከአደንዛዥ ዕፅ አጠቃቀም፣ ከማጨስ እና ከሌሎች ተግባራት ጋር በተያያዙ ባህሪዎችዎ ላይ ይጠይቃል።

ተ.ቁ	ጥያቄዎች ከመልሶች ጋር	ጥያቄዎች ከመልሶች ጋር	ጥያቄዎች ከመልሶች ጋር	ዝለል
10	ባለፉት 12 ወራት ውስጥ አልኮል ተጠቅመሽ ታውቂያለሽ? 1. አዎ 2. አይ	10.1. አዎ ከሆነ፣ ምን ያህል ጊዜ አልኮል ጠጣሽ? 6. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 7. በተደጋጋሚ (በየሳምንቱ) 8. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 9. አልፎ አልፎ (አንድ ወይም	10.2. ብዙውን ጊዜ ምን ዓይነት አልኮል ትጠቀሚያለሽ? (የሚመለከተውን ሁሉ ይምረጡ) 1. ቢራ 2. ወይን 3. ጠላ	

		ሁለት ጊዜ) 10. በጭራሽ	4. ጠጅ 5. የአበሻ አረቄ 6. የተጣራ አልኮል (ውስኪ፣ ቮድካ፣ ጂን፣ ተኪሊ...)	
11	ባለፉት 12 ወራት ውስጥ ሲጋራ አጨሰሽ ታውቂያለሽ? 1. አዎ 2. አይ	11.1. አዎ ከሆነ፣ ባለፉት 12 ወራት ውስጥ ስንት ጊዜ አጭሰሻል? 1. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 2. በተደጋጋሚ (በየሳምንቱ) 3. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 4. አልፎ አልፎ (አንድ ወይም ሁለት ጊዜ) 5. በጭራሽ		
12	ባለፉት 12 ወራት ውስጥ ሌሎች የትምባሆ ዓይነቶችን አጨሰሽ ወይም ተጠቅመሽ ታውቂያለሽ? 1. አዎ 2. አይ	12.1. አዎ ከሆነ፣ ባለፉት 12 ወራት ውስጥ ምን ያህል ጊዜ ተጠቅመሽ ታውቂያለሽ? 1. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 2. በተደጋጋሚ (በየሳምንቱ) 3. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 4. አልፎ አልፎ (አንድ ወይም ሁለት ጊዜ) 5. በጭራሽ	12.2. ምን ዓይነት የትምባሆ ዓይነቶች ተጠቅመሽ ታውቂያለሽ? (የሚመለከተውን ሁሉ ይምረጡ) 1. Snuff / Suret 2. ሺሻ 3. ቪፕ ወይም ኢ - ሲጋራ 4. Pipe 5. ትምባሆ ማኘክ	
13	ባለፉት 12 ወራት ጫት ቅመሽ ታውቂያለሽ? 1. አዎ 2. አይ	13.1. አዎ ከሆነ፣ ባለፉት 12 ወራት ውስጥ ስንት ጊዜ ቅመሽ ታውቂያለሽ? 1. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 2. በተደጋጋሚ (በየሳምንቱ) 3. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 4. አልፎ አልፎ (አንድ ወይም ሁለት ጊዜ) 5. በጭራሽ		
14	ባለፉት 12 ወራት ውስጥ አደንዛዥ ዕፅ ተጠቅመሽ ወይም ሞክረሽ ታውቂያለሽ?? 1. አዎ 2. አይ	14.1. አዎ ከሆነ፣ ባለፉት 12 ወራት ውስጥ እነዚህን መድኃኒቶች ምን ያህል ጊዜ ተጠቅመሻቸዋል? 1. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 2. በተደጋጋሚ (በየሳምንቱ) 3. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 4. አልፎ አልፎ (አንድ ወይም ሁለት ጊዜ) 5. በጭራሽ	14.2. ከሚከተሉት መድኃኒቶች ውስጥ የትኛውን ሞክረሽዋል? (የሚመለከተውን ሁሉ ይምረጡ) 1. ጋንጃ / ማሪዋና / ዊድ 2. ኮኬይን 3. ሄሮይን 4. ካናቢስ 5. ኤክስታሲ 6. ሌላ (ይግለጹ): ____	

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝለል
15	ከእነዚህ ንጥረ ነገሮች ውስጥ አንዱን ከተጠቀምሽ በኋላ እንቅልፍ ማጣት ይሰማሻል?	1. አዎ 2. አይ	አይ ከሆነ፣ ወደ Q17 ይዝለሉ
16	አዎከሆነ፣ ይህን ውጤት ለማሸነፍ ምን ታደርጊያለሽ?	1. አልኮል እወስዳለሁ 2. የእንቅልፍ ክረኖችን በአፍ እወስዳለሁ 3. የእንቅልፍ መድሃኒቶችን በመርፌ እወስዳለሁ 4. ምንም ነገር አላደርግም 5. ሌላ (ይግለጹ)፡ _____	
17	ባለፉት 12 ወራት ውስጥ ወሲብ ቀስቃሽ ፊልሞች አይተሽ ታውቂያለሽ?	1. አዎ 1. አይ	አይ ከሆነ፣ ወደ Q19 ይዝለሉ
18	አዎ ከሆነ፣ ባለፉት 12 ወራት ምን ያህል ጊዜ ተመለከትሽ?	1. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 1. በተደጋጋሚ (በየሳምንቱ) 2. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 3. አልፎ አልፎ (አንድ ወይም ሁለት ጊዜ) 4. በጭራሽ	
19	ባለፉት 12 ወራት ውስጥ ሰዎች በሚጨፍሩባቸው የምሽት ክለቦች ወይም ግብዣዎች ሄደሽ ታውቂያለሽ?	1. አዎ 1. አይ	አይ ከሆነ፣ ወደ Q21 ይዝለሉ
20	አዎ ከሆነ፣ ባለፉት 12 ወራት ምን ያህል ጊዜ ሄድሽ?	1. በየቀኑ ወይም በየቀኑ ማለት ይቻላል 1. በተደጋጋሚ (በየሳምንቱ) 2. አልፎ አልፎ (በወር ወይም ከዚያ በታች) 3. አልፎ አልፎ (አንድ ወይም ሁለት ጊዜ) 4. በጭራሽ	

ክፍል ሶስት፡ የወሲብ ልምድ እና ባህሪ በአካዩ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል

ይህ ክፍልስለ ወሲባዊ ልምዶች፣ ስለኮንዶም አጠቃቀም እና ስለማንኛውም ተዛማጅ ባህሪዎች ይጠይቃል።

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝለል
21	የግብረ ስጋ ግንኙነት አርገሽ ታውቂያለሽ?	1. አዎ 2. አይ	አይ ከሆነ ወደ Q 28 ይዝለሉ
22	የመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት ስታደርጊ እዴሜሽ ስንት ነበር?	ዕድሜ _____	
23	ለመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት ያደረግሽው ከማን ጋር ነበር?	1. ትዳር 2. የፍቅር አጋር 3. ተራ ግንኙነት 4. አንድ ምሽት ትውውቅ 5. ሌላ (ይግለጹ)	
24	ለመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት ስታደርጊ ምክንያትሽ ምን ነበር?	1. የግል ፍላጎት 2. የእኩዮች ግፊት 3. የአጋር ግፊት 4. በሚተላለፉ ስጦታዎች ምክንያት ተገድጄ 5. በኢኮኖሚያዊ ምክንያቶች 6. በአልኮል ተጽእኖ 7. እጽ ተጽእኖ 8. ሌላ (ይግለጹ)	
25	በህይወት ዘመንሽ ከስንት ሰዎች ጋር የግብረ ስጋ ግንኙነት አድርገሽ ታውቂያለሽ?	_____ አጋሮች	

26	ባለፉት 12 ወራት ውስጥ ከስንት ሰዎች ጋር የግብረሰጋ ግንኙነት አድርገሽ ታውቂያለሽ?	_____ አጋሮች	
27	በባለፉት 12 ወራት ውስጥ አልኮል /ጫት/ አደንዛኸር እጽ ተጠቅመሽ የግብረ ሰጋ ግንኙነት ፈጽመሽ ታውቂያለሽ?	1. አዎ 2. አላውቅም	
28	ከተለመደው የወንድ ብልትን ወደ ሴት ብልት በማስገባት ከሚደረግ ወሲባዊ ግንኙነት ውጪ ያሉ ወሲባዊ ድርጊቶች ላይ ተሳትፈው ያውቃሉ? ከሆነ የተሳተፉበትን ይምረጡ (የሚመለከተውን ሁሉ ይምረጡ)	1. በመቀመጫ የሚደረግ ወሲብ 2. በአፍ የሚደረግ ወሲብ 3. የወንዱ ብልት ሳይገባ የሚደረግ ወሲብ / መተሻሽት 4. አላውቅም	
29	የግብረ ሥጋ ግንኙነት እንድትፈጽሟ ከጓደኞችሽ ግፊት ገጥሞሽ ያውቃል?	1. አዎ 1. አይ	

ክፍል አራት፡ በአኦዩ የመጀመሪያ ምረቃ ሴት ተማሪዎች ላይ ስለ ድንገተኛ የወሊድ መከላከያ (post-pill) ዕውቀት፣ አመለካከት፣ ግንዛቤ እና ልምምድ

ይህ ክፍል ስለ የድንገተኛ ጊዜ የእርግዝና መከላከያ እውቀት፣ ግንዛቤ እና ዘዴዎችን፣ ተደራሽነትን እና አጠቃቀምን ጨምሮ ተሞክሮዎችን ይዳስሳል።

ክፍል አንድ፡ በአኦዩ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል ስለ ድንገተኛ የወሊድ መከላከያ እውቀት

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝላል
30	ስለ ድንገተኛ የወሊድ መከላከያ (post-pill) ሰምተሽ ታውቂያለሽ?	1. አዎ 2. አይ	አይ ከሆነ ወደ Q 36 ይዝለሉ
31	ስለ ድንገተኛ የእርግዝና መከላከያ መረጃ ከየት አገኘሽ? (በርካታ ምላሾች ይቻላል)	1. የጤና ሰራተኞች 2. ጓደኞች / እኩዮች 3. ሚዲያ (ቴሌቪዥን ፣ ሬዲዮ) 4. ሌላ (ይግለጹ)	
32	ምን አይነት ድንገተኛ የወሊድ መከላከያ ታውቂያለሽ? (በርካታ ምላሾች ይቻላል)	1. እንክብሎች 2. IUCDs (የማህፀን ውስጥ የሚደረግ የወሊድ መከላከያ) 3. የሚወጋ 4. ሌላ (ይግለጹ)	
33	በአፍ የሚወሰድ ድንገተኛ የእርግዝና መከላከያ የት እንደሚገኝ ታውቂያለሽ? [በርካታ ምላሾች ይቻላል]	1. ሆስፒታሎች 2. ጤና ጣቢያዎች 3. የግል ክሊኒኮች 4. ፋርማሲ 5. ሌላ (ይግለጹ) _____	
34	የድንገተኛ የወሊድ መከላከያ መቼ ነው መጠቀም ያለበት ብለሽ ታስቢያለሽ?	1. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ 2. ያልተፈለገ እርግዝና ሲከሰት 3. እንደ መደበኛ የእርግዝና መከላከያ ዘዴ 4. አላውቅም 5. ሌላ (ይግለጹ)	
35	ድንገተኛ የወሊድ መከላከያ ከኒኖች መቼ ውጤታማ ናቸው ብለሽ ታስቢያለሽ?	1. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ በ 24 ሰዓታት ውስጥ ብቻ 2. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ በመጀመሪያዎቹ 72 ሰዓታት ውስጥ 3. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ በመጀመሪያዎቹ 5 ቀናት ውስጥ 4. አላውቅም	

ክፍል ሁለት፡ በአዳዲስ ውስጥ በሴት የቅድመ ምረቃ ተማሪዎች መካከል ስለ ድንገተኛ የወሊድ መከላከያ ያለው ግንዛቤ አሁን፣ ስለ ድንገተኛ የእርግዝና መከላከያዎች ያለዎትን ሀሳብ መጠየቅ እፈልጋለሁ። ለአያንዳንዱ ዓረፍተ ነገር፣ እባክዎን ምን ያህል እንደተሰማሙ ወይም እንደማይሰማሙ ምልክት በማድረግ ከአስተያየትዎ ጋር በተሻለ ሁኔታ ያሳዩ፡ በጣም አልስማማም፣ አልስማማም፣ ገለልተኛ፣ እስማማለሁ፣ በጣም እስማማለሁ።

ተ.ቁ		በጣም አልስማማም	አልስማማም	ገለልተኛ	እስማማለሁ	በጣም እስማማለሁ
36	ያልተፈለገ እርግዝና ለወጣት ሴቶች በጣም አሳሳቢ ነው ምክንያቱም በጊዜ ሂደት ከፍተኛ የጤና፣ ማህበራዊ እና የገንዘብ ችግሮች ሊያስከትል ይችላል።					
37	ማንኛውም የግብረ ሥጋ ግንኙነት የምትፈጽም ወጣት ሴት የወሊድ መከላከያ አለመስራት ወይም ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ሊደርስባት ይችላል ይህም በማንኛውም ጊዜ ወደ ያልተፈለገ እርግዝና ሊመራ ይችላል።					
38	የድንገተኛ የእርግዝና መከላከያ ክረኖችን በትክክል እና በጊዜ መጠቀም ጥንቃቄ ካልተደረገበት የግብረ ሥጋ ግንኙነት ወይም የእርግዝና መከላከያ አለመሳካት በኋላ ያልተፈለገ እርግዝናን ለመከላከል ውጤታማ ዘዴ ነው።					
39	የድንገተኛ የእርግዝና መከላከያ ክረኖች በግብረ ሥጋ ግንኙነት ከሚተላለፉ ኢንፌክሽኖች ወይም ኤችአይቪ አይከላከሉም ፣ ስለሆነም ሌሎች የመከላከያ ዘዴዎች የግብረ ሥጋ ግንኙነት በሚፈጽሙበት ጊዜ አስፈላጊ ናቸው ።					
40	አስፈላጊ ሆኖ ሲገኝ የድንገተኛ የወሊድ መከላከያ ክረኖች ማግኘት እና በትክክል መጠቀም እንደምችል እርግጠኛ ነኝ።					

ክፍል ሶስት፡ በአዳዲስ ውስጥ በሴት የቅድመ ምረቃ ተማሪዎች መካከል የድንገተኛ የወሊድ መከላከያ አመለካከት
 እባክዎ መግለጫውን ያንብቡ እና በመግለጫው በስተቀኝ ባለው አምድ ላይ እንደተገለጸው የእርስዎን አመለካከት የሚወክል ምርጫን ያመልክቱ፡ በጣም እስማማለሁ፣ እስማማለሁ፣ ገለልተኛ፣ አልስማማም ወይም በጣም አልስማማም።

ተ.ቁ		በጣም አልስማማም	አልስማማም	ገለልተኛ	እስማማለሁ	በጣም እስማማለሁ
41	እንደ የወሊድ መከላከያ አለመሳካት ወይም ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት የመሳሰሉ ድንገተኛ የወሊድ መከላከያ የሚፈልግ ሁኔታ ውስጥ ብዙን የድንገተኛ የወሊድ መከላከያ ክረኖችን ለመጠቀም ፈቃደኛ እሆናለሁ።					
42	ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ ድንገተኛ የወሊድ መከላከያ መጠቀም በጊዜ ከተወሰደ እርግዝናን ለመከላከል ይረዳል።					
43	የድንገተኛ የእርግዝና መከላከያ ዘዴዎች በፋርማሲዎች እና በጤና እንክብካቤ መስጫ ተቋማት ውስጥ ሁሉ ለሁሉም ሴቶች ዝግጁ መሆን አለባቸው					
44	ድንገተኛ የእርግዝና መከላከያዎችን የሚጠቀሙ ሴቶች ለእርግዝና መከላከያ ሌሎች መደበኛ የእርግዝና መከላከያ ዘዴዎች አያስፈልጋቸውም					
45	ድንገተኛ የእርግዝና መከላከያዎችን አዘውትሮ መጠቀም በጊዜ ሂደት ምንም ዓይነት አሉታዊ የጤና ችግር አይኖረውም					

ክፍል አራት፡ በአዳዲስ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል የድንገተኛ የወሊድ መከላከያ ልምዶች

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝለል
46	የድንገተኛ የወሊድ መከላከያ ክረኖችን ተጠቅመሽ ታውቁያለሽ?	1. አዎ 2. አይ	አይ ከሆነ ወደ 54 ይዝለሉ
47	ባለፉት 12 ወራት ውስጥ የድንገተኛ የወሊድ መከላከያ ተጠቅመሻል?	1. አዎ 2. አይ	የለም ከሆነ ወደ 49 ይዝለሉ
48	አዎ ከሆነ፣ ባለፉት 12 ወራት ውስጥ ስንት ጊዜ ተጠቅመሻል?	_____ ጊዜ	

49	አሁን ለመጨረሻ ጊዜ የድንገተኛ የእርግዝና መከላከያ ክፍሎችን የተጠቀሙበትን ጊዜ አስቢ፣ መቼ ነው የወሰድሽው?	1. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ በ 24 ሰዓታት ውስጥ 2. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ በ 72 ሰዓታት ውስጥ 3. ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ በ 5 ቀናት ውስጥ 4. ሌሎች ይገልጻሉ _____	
50	የድንገተኛ የወሊድ መከላከያ ክፍሎችን ለምን ተጠቀምሽ? (የሚመለከተውን ሁሉ ምረጩ)	1. መደበኛ የወሊድ መከላከያ መርሳት 2. የኮንዶም መበላሸት 3. ያልታቀደ ወሲብ 4. የግዳጅ ወሲብ 5. ሌሎች በመቀመጫ, በአፍ የሚደረግ ወሲብ, የወንዱ ብልት ሳይገባ የሚደረግ ወሲብ፤... 6. ሌላ (ይግለጹ) _____	
51	ድንገተኛ የወሊድ መከላከያ ከተጠቀምሽ በኋላ መደበኛ የወሊድ መከላከያ ዘዴን መጠቀም ጀመርሽ?	1. አዎ 2. አይ	ካልሆነ ወደ 53 ይዝለሉ
52	አዎ ከሆነ የትኛውን ዘዴ ነው የጀመርሽው?	1. እንክብሎች 2. መርፌ 3. ኮንዶም 4. በክንድ የሚቀበር 5. IUCDs (የማህፀን ውስጥ የሚደረግ የወሊድ መከላከያ) 6. ዘር ማፍሰስ 7. የቀን መቁጠሪያ/ ሪትም ዘዴ 8. ሌሎች (ይግለጹ) _____	
53	የትኛውንም የእርግዝና መከላከያ ዘዴዎች ለመጠቀም ዋናው ምክንያትሽ ምንድን ነው?	1. እርግዝናን መከላከል 2. በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን መከላከል 3. የአጋር ጥያቄ 4. ሌሎች (ይግለጹ) _____	
54	ድንገተኛ የእርግዝና መከላከያ ዘዴዎችን ላለመጠቀም ምክንያቶች ምንድን ናቸው? (የሚመለከተውን ሁሉ ይምረጡ)	1. ሃይማኖቱ ይከለክላል 2. አቅራቢዎችን ፍርሃት 3. ዘዴዎች አለመገኘት 4. ማህበራዊ መግለልን ወይም ፍርድን መፍራት 5. የጤና አደጋዎችን መፍራት (የጎንዮሽ ጉዳዮች፣ መሃንነት፣ ኤችአይቪ/ኤድስ ፣...) 6. የግብረ ሥጋ ግንኙነት አልፈጸምኩም 7. ሌሎች (ይግለጹ) _____	

ክፍል አምስት፡ በበአዳድ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል ስለ በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን እውቀት፣ አመለካከት፣ ግንዛቤ እና ልምምድ

ይህ ክፍል በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን በተመለከተ የእርስዎን ግንዛቤ፣ አመለካከት እና ተግባር እንዲሁም የአባላዘር በሽታዎችን የመከላከል እና የመንከባከብ ልምድዎን ይጠይቃል።

ክፍል አንድ፡ በአዳድ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖች እውቀት

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝለል
55	ስለ የአባላዘር በሽታ ሰምተሽ ታውቂያለሽ?	1. አዎ 2. አይ	
56	የአባላዘር በሽታ ምልክቶች ምንድን ናቸው? (በርካታ ምላሾች ይቻላል)	1. ከብልት የሚወጣ ያልተለመደ ፈሳሽ 2. የብልት ማሳከክ 3. የብልት ቁስል 4. የሚያቃጥል ሽንት 5. የታችኛው የሆድ ህመም	

		6. ሌላ (ይግለጹ)	
57	በአባላዘር በሽታዎች የመያዝ አደጋን የሚጨምሩት ምን ነገሮች ይመስልሻል? (በርካታ ምላሾች ይቻላል)	1. በርካታ የወሲብ አጋሮች 2. ጥንቃቄ የጎደለው ወሲብ 3. ወጥ ያልሆነ የኮንዶም አጠቃቀም 4. የአጋር አጋላጭ ወሲባዊ ባህሪ 5. የአደንዛዥ እጽ መጠቀም(አልኮሆል፣ ጫት፣ ማጨስ) 6. ሌላ (ይግለጹ)	
58	የአባላዘር በሽታን እንዴት መከላከል ይቻላል?(በርካታ መልሶች ይቻላል)	1. በመታቀብ 2. አንድ የወሲብ ጓደኛ ብቻ በመያዝ 3. በተቻለ መጠን ኮንዶም በመጠቀም 4. በማንኛውም የግብረ ሥጋ ግንኙነት ኮንዶም በመጠቀም 5. በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን በመደበኛነት በመመርመር 6. ድንገተኛ የእርግዝና መከላከያዎችን በመጠቀም 7. ሌላ (ይግለጹ)	
59	የአባላዘር በሽታ ምርመራ ወይም የሕክምና አገልግሎቶችን የት ማግኘት እንደሚቻል ታውቂያለሽ?	1. አዎ 2. አይ	

ክፍል ሁለት:-በአዳዲስ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች ግንዛቤ

ተ.ቁ		በጣም አልስማማም	አልስማማም	ገለልተኛ	እስማማለሁ	በጣም እስማማለሁ
60	ከመደበኛው የግብረ ሥጋ ጓደኛዬ ጋር ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት በምፈጽምበት ጊዜ ሁሉ በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽን (የአባላዘር በሽታ) የመያዝ አደጋ ላይ ነኝ ብዬ አስባለሁ።					
61	በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖች ካልታከሙ በጊዜ ሂደት ወደ ከባድ የጤና ችግሮች ሊመሩ ይችላሉ።					
62	በማንኛውም የግብረ ሥጋ ግንኙነት ወቅት ኮንዶም መጠቀም የወሲብ ጓደኛ ጋር እንኳን ቢሆን በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን የመያዝ አደጋን ለመቀነስ አስፈላጊ ነው።					
63	የአባላዘር በሽታዎች እንዲጋጠሙኝ ብጠራጥርም እንኳን በግብረ ሥጋ ግንኙነት ለሚተላለፉ ኢንፌክሽኖች ከመመርመር ወደኋላ እላለሁ ምክንያቱም ጓደኞቼ/ቤተሰቤ/ያዩኝ ሰዎች ምን እንደሚያስቡኝ እጨነቃለሁ።					
64	በግብረ ሥጋ ግንኙነት ከሚተላለፉ ኢንፌክሽኖች እራሴን ለመጠበቅ ከወሲባዊ ጓደኛዬ ጋር የግብረ ሥጋ ግንኙነት ባደረግኩ ቁጥር ኮንዶም በተሳካ ሁኔታ መጠቀም እችላለሁ።					

ክፍል ሶስት:-በአዳዲስ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች አመለካከት

ተ.ቁ		በጣም አልስማማም	አልስማማም	ገለልተኛ	እስማማለሁ	በጣም እስማማለሁ
65	በግብረ ሥጋ ግንኙነት የሚተላለፉ የኢንፌክሽን መከላከያ ዘዴዎችን ከተመለከተ የግብረ ሥጋ ጓደኛዬ(ዎች) ጋር ለመወያየት በራስ መተማመን ይሰማኛል።					
66	በግላዊ ምርጫዎቼ እና ባህሪዎቼ በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን የመያዝ እድሌን መቆጣጠር እንደምችል አምናለሁ።					
67	በኔ ግቢ ውስጥ ወይም በአካባቢዬ ባሉ በግብረ ሥጋ ግንኙነት የሚተላለፉ የኢንፌክሽን ምርመራ እና የሕክምና አገልግሎቶች እርካታ አግኝቻለሁ።					
68	ምንም ምልክቶች ባይኖሩኝም እንኳን፣ በጾታዊ ግንኙነት ለሚተላለፉ ኢንፌክሽኖች በየጊዜው መመርመር አስቀድሞ ማወቅ እና ህክምናን ማረጋገጥ አስፈላጊ ነው ብዬ አምናለሁ።					
69	በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን ለመከላከል ኮንዶምን ያለማቋረጥ መጠቀም ውጤታማ ዘዴ ነው።					

ክፍል አራት:- በአዳዲስ ውስጥ በሴት የመጀመሪያ ዲግሪ ተማሪዎች መካከል በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖች ልምድ

ተ.ቁ	ጥያቄዎች	ምላሽ	ዝለል
70	ባለፉት 12 ወራት ውስጥ ከሚከተሉት ምልክቶች አንዱን አጋጥሞሽ ያውቃል? (የሚመለከተውን ሁሉ አረጋግጥ)	1. ያልተለመደ የሴት ብልት ፈሳሽ 2. በጾታ ብልት አካባቢ ማሳከክ 3. የብልት ቁስል 4. የሚያቃጥል ሽንት 5. የታችኛው የሆድ ህመም 6. ምንም ምልክቶች የሉም	አይ ከሆነ ወደ 73 ይዝለሉ
71	የሕመም ምልክቶች ከታዩ የሕክምና እርዳታ ፈልግሽ ነበር?	1. አዎ 2. አይ	አዎ ከሆነ ወደ 73 ይዝለሉ
72	አይደለም ከሆነ፣ ለምን የህክምና እርዳታ አልፈልግሽም?	1. ምልክቶቹ በራሳቸው ተፈትተዋል 2. ሃፍረት 3. ወዴት እንደምሄድ አላውቅም ነበር። 4. ሌላ (ይግለጹ): _____	
73	በበህይወት ዘመንሽ የአባላዘር (በግብረ ሥጋ ግንኙነት የሚተላለፉ) በሽታ ይዞሽ ወይም ታከመሽ ታውቁለሽ?	1. አዎ 2. አይ	
74	ባለፉት 12 ወራት ውስጥ በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች(የአባላዘር በሽታ)ይዞሽ ወይም ታከመሽ ታውቁለሽ?	1. አዎ 2. አይ	
75	በፈቃደኝነት ላይ የተመሰረተ የኤችአይቪ ምርመራ (VCT) ወስደሽ ታውቁለሽ ወይስ የኤችአይቪ ምርመራ አድርገሽ ታውቁለሽ?	1. አዎ 2. አይ	ካልሆነ ወደ 78 ይዝለሉ
76	ለQ75 'አዎ' ከሆነ ባለፉት 12 ወራት ውስጥ የኤችአይቪ ምርመራ አድርገሽ ታውቁለሽ?	1. አዎ 2. አይ	
77	ለQ75 'አዎ' ከሆነ ውጤቱን ማወቅ አልፈልግም ነገር ግን የምርመራ ውጤት ተቀብለሻል?	1. አዎ 2. አይ	
78	የአባላዘር በሽታዎችን ለመከላከል ምን ታደርግሊያለሽ? (በርካታ ምላሾች ይቻላል)	1. መታቀብ 2. ለአንድ አጋር ታማኝ መሆን 3. ወጥ የሆነ የኮንዶም አጠቃቀም 4. መደበኛ የአባላዘር በሽታ ምርመራ 5. ሌላ (ይግለጹ): _____	
79	እርስዎ/የእርስዎ አጋር በግብረ ሥጋ ግንኙነት ወቅት ኮንዶም ተጠቅመሽ ታውቁለሽ?	1. አዎ 2. አይ	ካልሆነ ወደ 81 ይዝለሉ
80	ለ Q79 "አዎ" ከሆነ፣ ምን ያህል ጊዜ ኮንዶም ትጠቀማላቹ?	1. እንዳንዴ 2. አብዛኛውን ጊዜ 3. ሁሌም	
81	ለ Q 79 "አይ" ከሆነ፣ ኮንዶም ያልተጠቀምሽበት ምክንያት ምን ነበር?	1. ውድ ነው 2. ሃፍረት 3. በግብረ ሥጋ ግንኙነት ጊዜ አለመገኘት 4. የእርካታ መቀነስ 5. የአጋር አለመቀበል 6. ውጤታማ አይደለም 7. ምንም አይነት ወሲባዊ ተግባራት አልፈጸምኩም	
82	በዚህ መጠይቅ ውስጥ የእርስዎ ምላሾች ምን ያህል እውነተኛ እንደሆኑ ይሰማዎታል?	1. በጣም እውነተኛ 2. በመጠኑ እውነተኛ 3. ገለልተኛ 4. በመጠኑ እውነተኛነት የጎደለው 5. በጣም እውነተኛነት የጎደለው	

Annex III: CV of the investigator

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WORK EXPERIENCE

- **John Hopkins University. Center for communication programs, Ethiopia**
August 2024 – January 2025
Intern
- **Wachemo University, Nigist Eleni Mohammed Memorial Comprehensive Hospital**
April 2022 – October 2023
General Practitioner and Lecturer
- **Jimma University, Jimma Medical Center**
June 2020 – July 2021
Medical Intern

PROJECT EXPERIENCE

- **Community-Based Training Program:** at the end of each academic year for four years.
- **Team Training Program:** health education, clinical practice, and community-based cleaning campaigns in the final academic year.
- **BSc Project/Thesis:** done on the magnitude of unintended pregnancy and determinant factors among pregnant women presented in GYN/OBS OPD in Jimma Medical Centre, Jimma Zone, Oromia Regional State, Ethiopia

EDUCATION AND QUALIFICATIONS

- M.D in Medicine, Jimma University, Sept 2021
- MPH in Public Health, Specialty in Health Education and Promotion, Addis Ababa University, Present

REFERENCES

1. **Dr. Aschalew Tsegaye** (MD, Internist at Wachemo University, Nigist Eleni Mohammed Memorial Comprehensive Hospital), Contact available upon request
2. **Dr. Tegegn Molla** (MD, Internist, Neurologist at Wachemo University, Nigist Eleni Mohammed Memorial Comprehensive Hospital), Contact available upon request