

PREDICTORS OF CONDOM USE BY USING HEALTH BELIEF MODEL

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List of Abbreviations

STIs :- Sexually Transmitted Infections

USAID :- United States Aid for International Development

VCT:- Voluntary Counseling and Testing

HBM:- Health Belief Model

DOTs:- Directly Observed Therapy regimen for Tuberculosis

FMOH:- Federal Ministry of Health

SPSS:- Statistical Package for Social Sciences

NGOs:- Non-Governmental Originations

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Abstract

Background:- the few earlier studies conducted among freshman college students in Ethiopia at the Gonder college of medical science practiced sexual intercourse and half of that sexual contact to have been with prostitutes or with casual individuals among these, most did not use condoms.

Although there is no adequate information about the situation among Ethiopia college students, one study from western culture has indicated that college students fit in to either of the three sexual subculture: free experimentation of sexual act, monogamy, or abstinence. However, prevention of sexual transmission of HIV requires either abstinence from unprotected sexual intercourse or modification of relevant behavior with proper knowledge and attitude.

Objectives:- the objectives of this study is to assess predictors of condom use using Health belief model.

Methods:- Across-sectional self-administered based survey was conducted at Alemaya University from September, 2004 to April, 2005. The study population was selected randomly in four departments namely Law, accounting, plan science and history after they have been stratified based on their batches. The data collection tool was designed in such way that health belief model variables and AIDS-index behavior were used. Data analysis was computed by SPSS. Ethical clearance was secured from Addis Ababa university, medical faculty and from the study university. Participants in this study was voluntary and based on informed consent.

Result:- More female 21 (57%) had never used condom as compared to 47 (39%) of sexually active male students, who had never used condom. On the other hand more male 74(82.2%) had used condom as compared to 16(17.8%) of

female sexually active students , who had used condom at least once. The theoretical constructs with the intention to use condom and past condom use

was tabulated among male and female students. Thus, bivariate correlation analysis showed that past condom use was significantly associated with perceived behavioral control ($r = 0.197$, $P < 0.05$), normative belief ($r = 0.971$, $P < 0.05$), and self-efficacy ($r = 0.194$, $P < 0.01$) among male University Students. On the other hand, past condom use was significantly associated with normative belief ($r = 0.144$, $P < 0.05$), Self-efficacy ($r = 0.109$, $P < 0.05$) and perceived behavioral control ($r = 0.106$, $P < 0.05$) among female University Students.

Similarly regression analysis predicting intention to use condom among male university students showed that perceived benefit ($\beta = 0.158$, $T = 1.014$) outcome evaluation ($\beta = 0.241$, $T = 1.764$), self-efficacy ($\beta = 0.265$, $T = 1.892$) and perceived behavioral control ($\beta = 0.361$, $T = 2.865$) were significantly associated with future intention to use condom, while among female University Students, perceived benefit ($\beta = 0.183$, $T = 2.285$) normative belief ($\beta = 0.204$, $T = 2.593$) Perceived barrier ($\beta = 0.214$, $T = 2.181$) , self-efficacy ($\beta = 0.194$, $T = 2.428$), and perceived behavioral control ($\beta = 0.165$, $T = 2.036$) were significantly associated with intention to use condom.

Statement of the problem

Worldwide there are several studies on knowledge, attitude and practice of college students towards AIDS/Acquired Immune-deficiency syndrome/. College students are often viewed as being at high risk for HIV due to their propensity to engage in exploratory behavior and their needs for peer social approval and their sense of non-vulnerability. A survey conducted among high school students in Addis Ababa had shown that 48% of students Knew AIDS and only about 15% of them were informed about the various type of STD a study conducted to asses the prevalence of HIV among high school and college students attending clinics for STD, in A.A had shown a 19% seroposetiviety. The report had shown that there is a serious cause of concern about protecting this sector of the population from AIDS. (2)

The few earlier studies conducted among freshman college students in Ethiopia at the Gonder College of medical practiced sexual intercourse and half of that sexual contact to have been with prostitutes or with causal individuals. Among these, most (75%) did not use condoms. Amore recent study involving the general student population of Gonder College of medical sciences reported about 23% sexual contact with prostitutes and 48% condom use.(12)

Although there is no adequate information about the situation among Ethiopia college students, one study from western culture has indicated that college students fit in to either of three sexual subculture: celibacy, is monogamy, or free experimentation since widespread compliance with an extreme position such as celibacy, is unlikely, prevention of sexual transmission of HIV requires wither abstinence from unprotected sexual intercourse of

modification of relevant behavior, with proper knowledge and attitude as prerequisites for such changes in Ethiopia, currently, there is some modest effort mostly supported by external funding to disseminate information and provide general education on HIV-AIDS. Therefore, on part of the literate sector of the population that would be expected to access some of this information and benefit from the general education being provided on AIDS, it is hypothesized that college students would be better informed about the disease and would adjust their behavior towards its prevention accordingly. Thus, the one college based study and various out of school and school youth community based study describe the risk behaviors of youth. However, there is no such studies done in Alemaya University student regardless of ever-increased number of students joining the university together with newly founded independence by the side of students to experiment new life mainly due to peer influence and environmental factor may predispose them for risk sexual behavior in the era of HIV/AIDS epidemic and unwanted pregnancy with its untold consequences. Thus, especial; preventive mechanism in university students requires a kind of devise that effectively prevents STIs including HIV/AIDS and unwanted pregnancy.

Obviously, it is condom that responds the afro mentioned problems. However, little has been known about the determinates of condom among youth of Ethiopia from the various pocket studies dealing about youth sexual behaviors. Thus, it is in an effort to consolidate the existing knowledge, actual condom use and future intention to use condom will be comprehensively seen by one of the behavior model, namely, the health belief model. (HBM)

So far much has been said about the various strategy to reduce HIV/AIDS epidemic, but it needs to be reconciled in to the local situations and to the appropriate targets as well. Thus, predictors of condom use through health belief model will serve for planning programming and evaluation to HIV/AIDS prevention projects particularly in higher institution setting with its inherent limitation of being statistically manipulated variables. (HBM. components).

THE HEALTH BELIEF MODEL

For five decades the Health belief model (HBM) has been one of the most widely used conceptual frame works in health behavior. The HBM has been used both to explain change and maintenance of health related behaviors and as a guiding framework for health behavior intervention. The HBM has been expanded, broken down in to components, compared to other frameworks and analyzed using a wide array of multivariate analytic techniques.

Components of the HBM

It is now believed that people will take action to prevent or control ill-health conditions, if they regard themselves as susceptible to the condition, if they believe it would have potentially serious consequences, If they believe that a course of action available to them would be beneficial in reducing either their susceptibility to or the severity of the condition, and if they believe that the anticipated barriers to (or cost) taking the action are outweighed by its benefits. Accordingly the same assumption is believed to be holds true for HIV/AIDS as well.

Literature Review

Ethiopia is a country with a complex diversity in cultural and social values reflects variations in the age at which adolescent male and female begin their sexual relation ships. Formal education on sexual matters is in adequate or non existing or provided too late in adolescent and thus will continue to be sexually active with all the associated anxieties and risks including unwanted pregnancies and sexually transmitted disease including HIV/AIDS. (1)

An estimated of 20% of Ethiopia population is found to be between the ages of 15-24 years. However, existing data on young people reveal a failing age at sexual debut, increasing rates of sexual involvement, high morbidity and mortality from abortion complications and high prevalence of HIV/AIDS.(2)

Religion and social norms play significant roles in Peoples lives and generally do not encourage the young to develop independence and self-reliance. There are many taboos about sexually, and education is particularly non existent in the school system. Even though no sex before marriage is general norm, there is gender imbalance in approving it when it takes place.(3)

AIDS has already killed more than 20 million people world wide. More than 40 million other people are today living with HIV-infection. almost half of whom are women and a full-third are young people aged 15-24. AIDS is the leading cause of death in Sub-Saharan Africa, the fourth leading killer world wide, and HIV, the cause of AIDS continue to spread in every corner of the globe.

And yet infection by HIV can be avoided. All that is required is for all people every where to be given the information, education, skills and full access

to the ways they need to protect themselves and others. Male and female condoms are an essential component of such efforts and expanding and improving condom promotion and distribution are absolutely vital to success in the fight against the spread of AIDS.

The fact that condoms can save lives is indisputable. It is also a fact that a great many people in every country have no alternative to condom use of protecting themselves or their sexual partners. Prevention efforts that do not include condoms are therefore incomplete and will ultimately be ineffective. (3,4,5,6)

To be effective, HIV/AIDS prevention programs must include a range and mix of interventions tailored to the specific needs various groups and localities the range must include the promotion of the "ABC" of prevention: abstinence, being faithful to one's partners, and condom use by the sexually active. And the mix of intervention must always include condoms- a most basic reproductive health technology that provide dual protection from infection and pregnancy. (9)

WHY CONDOMS?

Some 14 thousand people a day become infected with HIV and the vast majority of these infections are sexual. Yet sexual transmission of HIV can be avoided through the practice of safer sex. Despite this fact, HIV-continue to spread mainly because not enough people are practicing safer sex. Abstaining from sex, mutual monogamy between uninfected sexual partners, and the correct and consistent use of condoms are the only existing options for avoiding sexual infection. It is therefore essential that every one have access to the

information and tools that enable them to have safe and responsible sexual relations and to negotiate safer sex, including condom use.

The condom is the only technology available for protection from sexually transmitted HIV. It is scientifically undisputed that the transmission of HIV during sexual intercourse can be prevented when condoms are used correctly and consistently. Nonetheless, condom use is still much too low, despite decades of promotion for use in the prevention of sexually transmitted infections (STIs)- including since the early 1980's, HIV- and significant increase in distribution and availability. Insufficient use is due to many factors, among them generally low levels of awareness, poor availability and ability especially for young people, misinformation, and the stigma attached to condoms.(6.7.8)

Condom is especially important for individuals at higher risk of infection. Including socially unacceptable ways of sexual practice and others who are obliged to spend long periods away from their regular partners. However there are people every where who cannot adopt an alternative method to condom use for protection themselves or others such whose sexual partners are infected by HIV but also, and most obviously, the women and men forced by their circumstances into sex work. They must use condoms every time they have sex because they have little or no choice.

In those place where HIV- prevention efforts have been successful in reducing prevalence area infection rates, condoms have played a key role. There are many documented cases illustration the positive effects of condom promotion and increased use, including in Thailand among sex workers and their clients, and among young men in Brazil and India.(7,8,9,)

What ever its initial entry point in to a population HIV eventually spreads through sexual transmission. Although in its initial stages the epidemic may spread mainly through unsafe blood and injection drug users, HIV inevitably spreads with in the general populations as a sexually transmitted infection.

More than 80% of HIV-transmission is now heterosexual in Africa, where the epidemic has established the longest. The Caribbean is the second most affected region and to vast majority of infections in Central America and the Caribbean are the result of unsafe heterosexual sex and frequent partner exchange among young men and women. In parts of South America, which has a more HIV infection still result from unprotected sex between commercial sex worker and their client and between men, in addition to injecting drug use, but this pattern will likely changes if the epidemic develops further. (10,11)

Where curable sexually transmitted infection exist, so does HIV. World wide, over 300 million new cases of curable STI occur annually, with a regional distribution similar to that of HIV. Infection with and STI increases a person's risk of acquiring HIV, especially for a woman. If detected, many infection are asymptomatic, mean STIs too often go untreated. Correct and consistent condom use, and other behaviors to limit exposure to infections, can prevent sexually transmitted infection, especially HIV.

While societies and their governments may view the promotion of condom as a means to reducing rising rates of HIV prevalence, the main reason for promoting condom is to offer to individual one of only three possible means of protection from sexual infection by a 99% total virus (only rabies is more deadly

than HIV). HIV-AIDS prevention efforts that do not include condoms as an option are incomplete and Ultimately ineffective. (10,11,12)

THE CONDOM CHALLENGE:

The stigma secrecy and discrimination surrounding HIV/AIDS remain major obstacles to addressing the disease in general and sexual behavior in particular. Condoms use is further complicated by a host of other factors, among them generally low level of awareness, availability and accessibility especially for young people as well as wide spread misinformation.

Individual's knowledge, attitude, awareness and personalization of HIV-risk as well as the communication and power-sharing dynamics in relationships, all influence condom use. The attitudes of parents, peers, religious figures, political leaders and role models are also very influential. (10.11,12,)

The individuals and societal to condom use

- Low perceived risk of HIV-infection contributes to low condom use. Condom use is lowest among married partners and youth who often believe they are "safe" from or invulnerable to infection. An eight- country study in sub-Saharan Africa found that low perception of personal risk is the most important reason that people avoiding using condoms, men and women tend to trust their marital of regular partners. Other studies have shown that relationships with higher level of love and commitment are associated with lower levels of condom use. In the same line young people tend to consider themselves invulnerable to risk, even in countries where HIV is widespread, and the unplanned or secretive

nature of many of their sexual encounters makes it difficult for them to protect themselves even when they are aware.

In Zambia for example, youth who have only seen older people die of AIDS believe that HIV infection only occurs among older people. Youth feel more confident about having sex with partners who do not suggest condom use because; they think them less likely to have STIs, including HIV

In many societies, people associates condoms with infidelity and commercial sex; adolescents often consider the discussion of condom use with a partner a signal of distrust.

Gender roles and inequalities jeopardize sexual and reproductive health for both women and men. Concepts of masculinity lead men in many settings as sources of information and services. Notions of femininity make it difficult for women to discuss sex and reproduction with their partners, and may also inhibit their mobility, restrict their access to health services and the resources to pay for them, and subject them to violence or coercive sex.

Condom use is further affected by dislike for the way condoms feel. Condom users have indicated that they reduce sensation and compromise the spontaneity of sexual encounters. These were frequently cited reason for non-use of condoms women and men.

Resistance to use is also sometimes as much about beliefs or fears, as it is about reality. Men may not want to use condoms because they believe that condoms reduce the pleasure of sex or reduce their virility. Such concerns, including worries by either partner about loss of erection, can add to the difficulty of negotiation condom use. However, there is no study showing that

the various determinants of condom use among college student of Ethiopia in general Alamaya University in particular. Thus, this study is therefore aims to conceptualize the determinants of condom use among university students using health behavior model in the local context. (10,11,12,)

Uninfected sexual partners, and the correct and consistent use of condom are the only existing options for avoiding sexual infection. It is therefore essential that every one gave access to the information and tools that enable them to have safe and responsible sexual relations and to negotiate safer sex, including condom use.

Significance of the study

As it has been clearly seen from the statement of the problem, youths are at higher risk of HIV-AIDS including higher institution students. Thus this is there for in an effort to strengthen the existing information in one hand and to provides a kind of evaluation and programmatic assessments of HIV AIDS prevention and control using health behavioral model on the other hand. Furthermore, this study have been done in place where, such information were lacking and the outcome of this study could serve as source of information for Alemaya University to develop action plan and other NGOS working in the area of HIV AIDS related to Higher institution.

Objectives

General objectives:- To assess predictors of condom use among Alemaya university students

Specific objectives:-

1. To identify perceived threat of HIV/AIDS or (and) unwanted pregnancy
2. To assess perceived benefits of condom
3. To identify perceived barriers of condom use.
4. To assess the triggering factors to use condom
5. To assess the normative belief of campus environment.
6. To assess the self-efficacy of students.

Methodology.

- **Study area:** - Alemaya University located 508 km from Addis Ababa, eastern Ethiopia, offering multidisciplinary fields of study in post graduate, under graduate and continuous education program. Currently the number of students joining to university increased by six folds as compared to five years back.

The main campus is located 5km from Alemaya town and faculty of health science was on move from Alemaya to Harar, while the faculty of technology was opened as of 2004/05 academic year in Diredawa. The University is also aimed to increase its annual entrance up to 10,000 students in 1997/98 Ethiopia fiscal year.

There are eight faculties in the university holding 7,568 students undergraduate levels. However, it was prepared a lottery method to pick four facilities and then four departments in the same manner. Moreover the departments were categorized in to their batches in order to pick proportion of students in accordance with the number of students in their batch. Thus from the college of Agriculture plant science, from faculty of education, History department students, from faculty of Business and Economics, Accounting department students and from school of Law, Law department students for degree program were selected.

Accordingly, it was also seen that there were 100 students in freshman history department. 130 in second year and 40 students in the 4th year (2nd year students in all department during this study was those students who were joined the previous education policy and those students who were joined by the

new educational policy). Similarly, there were 80 students in freshmen plant sc., 125 in the second year and 76 in the fourth year plant sc. Students, while there were 92 in freshmen 110 in the second year and 74 Students in fourth year Law department students respectively during the study period. In addition, it was seen that 120 students in freshmen accounting department, 105 in second year and 60 in the fourth year accounting department.

Accordingly 152 students were selected from freshman students as follow:- 30 from History, 31 from plant science department, 36 students from Law department and 47 from accounting department.

From 180 selected Second year students 59 students were History 48 students were plant science, while 42 and 40 students were Law and accounting departments respectively.

From 96 selected students of 3rd year, 16 students were History while 28 students were plant science, the rest 28 and 24 students were Law and accounting department respectively.

- **Study design:** - was a cross- sectional survey.
- **Source population** – all students of Alemya university
- **Study population:**- undergraduate students of the university
- **Sampling technique:**- stratified random sampling was applied.
- The variable of stratification were batches of students, assuming that sexual experience may be different as the number of years staying at the university influence their sexual behavior. Then,

- From each batch, proportional probability sample populations were also be comparable with that of the proportion of total female students in the university.

Sample size determination,

- The assumption was:- P=the proportion of ever condom use from one high school based study is 49%, another Gonder medical science based study showed 54.4%. However, I took 50% for Alemaya from this two comparable figure and due to undocumented facts of Alemaya university students.

Non-response rate of 10%

d=0.5, margin of error = 5% and single proportion formula for sample size calculation was used. Thus,

$$n = \frac{Z_{\alpha/2}^2 p(1-p)}{d^2}$$

$$n = 428$$

The sample frame:- was the lists of students name in their respective batch.

Sampling Procedure

To illustrate how it was selected; from freshmen students for instance, one student selected first then the fourth, the seventh etc students were selected in department of history and accounting. From department of plant science and law, one student selected first then the third and the fifth students etc were selected.

While for second year students the selection were, one students selected first then the third, the fifth etc in all selected departments. However, for third year students. One student selected first then the fourth, the 7th student etc

until the proportion of the selected student to that of the sample size determined in the batch.

Data collection and Measurement

Data collection was done by self-administered questionnaire with combined closed and open-ended questions. It was prepared in English language and then translated to Amharic. The facilitator selected from each batch was contacted and told about the study.

- ❖ The facilitators were staffs and selected student representatives from their batch.
- ❖ Survey questionnaire
 - An instrument was developed to elicit AIDS/HIV knowledge, beliefs and attitudes as well as intentions and behaviors regarding condom use. The HBM was used as the conceptual framework for the development of the instrument.
 - Note that, staffs were told about not to interfere while students fill the questioner in order to avoid bias.

Perceived benefits:-

- This variable consists of five items that suggest among other things, that condom are an effective way of preventing the transmission of the AIDS virus, sexually transmitted disease and of preventing unwanted pregnancies, the response option will be on a 5 point liker scale ranging from strongly agree to strongly disagrees. Responses were summed in to index scores ranging from five to twenty, with a higher score indicating higher perception of benefits.

Perceived barriers

- This variable also consisted three items, which, among others, suggested that buying or using condom is embarrassing, expensive, and indicates mistrust.

Cues to action

- Four items were included in this variable which required respondents to state whether or not they have ever discussed AIDS/HIV with adult family members, health professional and friends or received instructions on the subject in their university. Response options were or No. The index scores ranged from four to eight, with the higher score representing exposure to more cues.

Knowledge of HIV/AIDS

- The knowledge scale consisted of thirteen questions that focused mainly on the transmission and prevention of AIDS/HIV.

Response options were arranged on a 5 point liker & scale of strongly agree to strongly disagree or likely to not at all likely. The most correct response had five point, while the least correct had one point. The score index ranged from thirteen to fifty-two

Normative – belief

- Five items related to normative belief associated to condom use and intention such as, people as a whole, sex partner, health care provider – using from 1, as very unlikely to 5 as very likely

Self-efficacy

- Two items to assess the self-efficacy such as confidence to using condom in the middle of sexual excitement, high confidence in using condom indifferent situation like after alcohol use will be included.

❖ Socio demographic variables was as one form of variables of health belief model and thus, age, gender, religion economic status, educational status of parents and place of residence were assumed to have significant importance for this study.

- All participant of this study regardless of past sexual experience, were asked about their intention to use condoms in the future.

Sub scales were developed to measure perceived susceptibility to and seriousness of AIDS, benefits of condom use, barriers to condom use, cues to action and AIDS knowledge. In addition the extended concepts of HBM (normative belief and self- efficacy) were also be entertained.

There were four items utilized to measure perceived behavioral control and six items to measure out come evaluation.

Data Quality:- The data have been kept to provide the intended information in accordance with the planned proposal. Thus, a pilot study was prepared on 20 students, who have been excluded from the study participants. Accordingly, rearrangements were done in order to trap the interest of the question the data were also coded before it had been distributed to the study participants. It was tried to see the response after the study participants were filled the questionnaire in order to look the reliability of the response; these was achieved through a mechanism designed during questionnaire development. Then those incomplete responses were excluded during data entry. Moreover those complete responses were recoded before entry. Finally, the data were entered using Epi-info stastical package.

Data analysis: - The events were analyzed as follow:-

- To examine the bivariate relationships of the health belief model concepts to condom use, both intended and past, Pearson correlation was used.
- **Pearson correlation** between predictor variables and the dependent variables, intention to use condoms were relevant statistical method.
- Since some of the predictor variables may be interrelated, making bivariate relationships were difficult to interpret and because the major objective of this study is to determine which HBM variable will be significant predictors of condom use. Multivariate analyses was applied; hence; multiple regression analysis was conducted to determine which of the variables were significant predictors of intention to use condoms
- Common descriptive statistics were also be considered as per variables of interest.

THE DEPENDENT VARIABLE

- Intention to use condoms,
 - All participant of this study, regardless of past sexual experience, were asked about their intentions to use condoms in the future. They were responded the following questions.
- "If you have sex with in the next month, how likely is it that you would use a condom?" Responses were arranged form very likely to very unlikely

- Condom use;
- To determine what percentages of respondents had ever used condom during sexual intercourse, sexually active student were asked, have you

ever used a condom during sexual intercourse?" This is a dichotomous variable that requires a "yes" or "no" response.

- **The independent variables** in the study were

- ❖ Perceived susceptibility/ severity
 - ❖ Perceived benefits, perceived barriers.
 - ❖ Cues to action, age and gender
 - ❖ Normative belief and self- efficacy as and extended forms of HMB
 - ❖ Perceived behavioral control
 - ❖ Out come evaluation
- } Additional variable.

Ethical consideration

A letter had been sent from Addis Ababa University, Medical faculty, community health department to the study area (Alemay University).

Accordingly, a sort of discussion were made with the academic and research vice president of Alemaya University about the whole scenario of the research project. Latter, a letter was sent to registrar and faculties dean of the university.

Moreover, time arrangements were made between the investigator and department heads along with class coordinating students. Selected department students were told about the objective of the study and asked about their consent in order to fill the questionnaire. Finally, those randomly selected students were not hesitate to fill the response and were voluntary and successful event.

Operational definition.

Sexual intercourse: sexual activity that refers to penetration of the penis in the vagina

Regular partner: This refers to a sexual partner either spouse or one who lives together with in the 12 months prior to survey.

Commercial sex partner: Either male or female who had sex with opposite sex in exchange for money.

Non- commercial partner: A partner who is not married, have never lived with or didn't get paid.

The health belief model: Is one of the most widely used conceptual frame works in health behavior.

- The HBM has been used both to explain change and maintenance of health related behaviors and as a guiding framework for health behavior interventions.

1. Perceived susceptibility:- is one's belief regarding the chance of getting HIV/AIDS or STI or unwanted pregnancy
2. Perceived severity:- one's belief of how serious HIV/AIDS or unwanted pregnancy and its sequel are.
3. Perceived benefit:- one's beliefs in the efficacy of condom to reduce risk or seriousness of impact.
4. Perceived barrier:- one's belief about the tangible and psychological costs of condom use.
5. Cues to action:- strategies to activate one's "readiness" to use condom.
6. Self-efficacy:- one's confidence in one's ability to use condom in different scenario

7. Normative belief:- belief about whether each referent approves or disapproves of condom use.
8. Perceived behavioral control:- Perceived likelihood of using condom to protect HIV/AIDS due to a value attached to a behavioral outcome.

Result

From 428 self-administered Questionnaires 400 have been returned making a response rate of 93.0 %. However, of the returned Questionnaires 18 were incomplete as the same time they were sexually inactive which makes a response rate of 91.6%.

From 382 Successfully Completed response, 257 (63.3%) were male and 125 (32.7%) were female while 118 (30.9%) were fresh man students, 151 (39.5%) were fresh man students 2nd year and 113 (29.6%) were 3rd year students.

The mean age of the student was 20.6 (2.005) while all of them were single in terms of marital status.

As to the religious background, the majority 222 (58.1%) was Orthodox Christian and 84 (22%) protestant 51 (13.4%) of them were Muslim.

Among the student, 72 (18.9%) and 38 (9.9%) lost their parents (Father and mother respectively) while, 58 (18.6%) and 146 (41.8%) were reported to have illiterate father and mother respectively.

On the other hand, 91 (29.2 %) and 55(15.8%) were reported that their parental educational status is beyond 12th grade. However, 40(12.9%) of their father and 145 (41.5%) of their mama had no job either in private or governmental organization.

Age of First menarche

The mean Age of first menarche were 14.008 (1.406) and most of female respondent reported that first menarche were found to be in the age 11-14 years old and the rest lies in the age 15-18 years old.

Sexual Activities

Among the respondent, it was found that 158 (44%) were sexually active of whom 121 (76.6%) were male and 37 (23%) were female. However, there were 128 sexually active students in the past one year of whom 114 (89%) were male and the remaining 14 (10.9%) were female.

From sexually active students, 32 (20.5%), 61 (39.1%) and 63 (40.4%) were first years, second years and third year students respectively. While the mean age of sexual debut were 17.53 (2.504) for male and 17.32(1.959) for female however, the mean age of sexual debut for first year student was 16.5 (2.794) and it was 17.41 years (1.88) and 18.00 (2.18) for second years and third years respectively. Moreover, being 18 years old were also the most frequently sited across all the academic year.

Among sexually active students, there were 12 (7.6%) students reported to have a history of STD on the other hand, among, ever sexually active group, there were 30 (19%) who were abstained in the past one year sexual history.

Number of Sexual partner.

From 158 students 102 (65.4%) were monogamous 54 (34.6%) were experienced multiple sexual partner, of whom 12 of them reported to have more than five partners.

From those who reported as monogamous, 70 (68.6%) were male and 32 (31.4%) were female. It was 49 (90.74%) and 5(9.26%) male and female respectively reported to have multiple sexual partner. From those who reported that they were mentioned only one partner, 23 out of 32, 43 out of 61and, 36 out of 63 were first years, second years and third years students respectively. While

they were 9,18,27 students reported to have multiples sexual partner among first years, second years and third year's sexually active students respectively. However, it was only 48 (30.4%) students reported to have current fiancé that they knew each other in the past three months. On the other hand 23 (23.5%) had sexual intercourse with causal partner and 14 (14.4%) had **history** of sexual intercourse with person who had history of multiple sexual partner, while 3(3%) of them with a person who had history of STD, moreover, 59 (60%) of them reported that they had history of sexual intercourse with commercial sex worker. It was also found that 49 (83%) were male and 10 (16.9%) were female among reported sexual intercourse with commercial sex worker.

It was tried to see number of sexual partners between some time in their life and in the past one year. There were 17 students 42.5% of past one years multiple sexual partners respondent that they were among respondents of reported only one partner in the previous years of sexual history while, there were 24 (44.4%) of previously reported respondents of multiple sexual partner that they reported as respondent of only one partner in the past one years sexual history. However, there were 22 (40.7%) of students who were still among multiple sexual partners in the past one year sexually active students.

Condom Use status

There were 68 (44.4%) non-user of condom, 25 (16.3%) used occasionally, 24 (15.7%) used condom always. Among Non-users of condom 47 (39%) were male while 21 (57%) were female. On the other hand among condom user 74 (81.1%) were male while 16 (18.9%) were female, however, among the past one years sexually active group there were 51 (41.8%) not used condom at all, 27

(22.1%) used occasionally, 10 (8.2%) were used most of the time and it was only 34 (27.9%) of them were reported that they used condom at each sexual contact.

Among the reason that sexual active student mentioned for condom use were to protect HIV 69 (45.14%), unintended pregnancy 58(38.44%), that they were not sure of their friends status 26(17.3%), while among the non-user of condom, 23(15%) were reported that they did not like condom or because "they love each other" 30 (20.2%) and the rest mentioned either they perceived that their friend appeared to be not infected with HIV or they did not communicate about Condom at all. It was also reported that, there were 56 (82.4%) of non-Condom use who were also found to be either 19 years old or less when their first sexual intercourse were performed. While it was only 10 (14.7%) were found to be in age 20 - 23 years old that they reported the same. On the other hand, 69 (85.2%).of them were those condom users lies in their age of first sexual intercourse either 19 or less. While the remaining 12 (14%) were found to be in the age 20-23 years old.

Table 1: Distribution of Alemaya University
Students by their demographic characteristic, March 2005

Variable	Female	Male	Total
	n (%)	n (%)	n (%)
Sex:	125 (32.7)	257 (67.3)	382
Age: ≤ 20	95 (43.8)	122 (56.2)	217 (56.8)
> 20	30 (18.2)	135 (81.8)	165 (43.2)
Academic year			
: First Year	51 (39.8)	77 (60.2)	128(33.5)
Second Year	45 (29.8)	106 (70.2)	151(39.5)
Third Year	19 (18.4)	84 (83)	103(27.0)
Religion: Orthodox Christian	72 (32.4)	150 (67.6)	222 (58.1)
Muslim	21 (41.2)	30 (18.8)	51 (13.4)
Protestant	28(33.63)	56 (66.7)	84 (22.0)
Catholic	2 (33.3)	4 (66.7)	6 (1.6)
Other	2 (20)	8 (80)	10 (2.6)
Father Currently A live			
Yes	107 (85.6)	203 (79)	310 (81.2)
No	18 (14.)	54 (21)	72 (18.8)
Mother Currently alive			
Yes	113 (90.4)	23 (89.9)	344 (90.1)
No	12 (9.6)	26 (10.1)	38 (9.9)

Table 2: Factors Related to sexual behavior
Of sexual active Alemaya University Students

Alemaya, March 2005

Factor	Female	Male	Total
	n(%)	n (%)	n(%)
Sexually Active Yes	37 (29.6)	121 (47.1)	158 (41.4)
No	88 (70.4)	136 (52.9)	224 (58.6)
Lifetime Sexual			
Partner:			
• One	32 (86.5)	70 (57.9)	102 (64.6)
• 2 to 5	4 (10.8)	40 (33.1)	44 (27.8)
• > 5	1 (2.7)	11 (9.0)	12 (7.6)
Frequency of			
Condom Use:			
• Never Used	21 (56.8)	47 (38.8)	68 (43.0)
• Occasionally	5 (13.5)	25 (20.7)	30 (19)
• Most of the time	5 (13.5)	19 (15.7)	24 (15.2)
• Always	6 (16.2)	30 (24.8)	36 (22.8)
Had genital symptoms			
Of STIS			
• Yes	2 (5.4)	10 (8.3)	12 (7.6)
• No	35 (94.6)	111 (91.7)	146 (92.4)

Sexual contact with

High-risk partners

(N=74)

• Causal partner	3 (3.1%)	20 (20.4)	23
			(23.51%)
(n=98)			
• Who had STI (n=96)	2(66.7)	1(33.3)	3 (3.1%)
• CSW/ who had contact			
With CSW (n=148)	10 (6.8)	49 (38.1)	59 (39.9)
• Who had multiple partner	3 (15%0	11 (14.3%)	14 (14.4%)

Had Sex after consuming alcohol

(n=156)	Yes 6 (15.4)	33 (84.6%)	39 (0.25)
	No=30 (25.6%)	87 (74.4)	117 (74.1)

Sexual act Past one Year (n=128) 30 (23.4%) 98 (76.6%)

• Multiple Sexual			
Partner (n=40)	4 (13.3%)	36 (36.7%)	40 (31.3%)
• In consistent Condom use	5(17.8%)	32(34%)	37(28.9%)

Notice: all the variables (factors) between male and female are statically significant

The relation ship between socio-demographic character tics and theoretical constructs was tabulated with the intention to use condom among male and female students. Past condom use was significantly associated with perceived behavioral control ($r = .197$, $P < 0.05$), normative belief ($r = .971$, $P < 0.05$), and self-efficacy ($r = .194$, $P < 0.01$) among male university students.

On the other hand, past condom use was significantly associated with normative belief ($r = .144$, $P < 0.05$), perceived barrier ($r = .162$, $P < 0.05$) among female University students. Similarly regression analysis predicting intention to use condom among male University students showed that perceived benefit ($\beta = 0.158$, $T = 1.014$), out Come evaluation ($\beta = 0.241$, $T = 1.764$), self Efficacy ($\beta = 0.265$, $T = 1.892$) and Perceived behavioral control ($\beta = 0.361$, $T = 2.865$), were significantly associated with future intention of condom use while, among female University students perceived Benefit ($\beta = 0.183$, $T = 2.285$) perceived barrier ($\beta = 0.214$, $T = 2.181$) Normative belief ($\beta = 0.204$, $T = 2.593$), self – efficacy ($\beta = 0.194$, $T = 2.428$), and perceived behavior control ($\beta = 0.165$, $T = 2.036$) were significantly associated with intention to use condom.

Source of information on HIV/AIDS

Almost all of the respondents (99.8%) have heard about HIV/AIDS. The most commonly sited source of information were schools, were schools, radios and television in that order. Moreover, almost all (99.6%), reported that they have seen or know person infected with HIV and/or HIV/AIDS patient.

When asked about the cost of three HIWOT trust condom, they were 196 (51.3%) reported that the cost of three condom < Ethiopian 50 cents and it was 47 (21.3%) that they reported from Ethiopia. 50 cents to Ethiopian one birr while

they were 8 (2.1%) and 130 (34%) of the students that they reported more than Ethiopian one birr and don't know the cost of condom respectively.

Further more, when asked about the place of condom the majority reported that shop, Health institution, and pharmacy were the most commonly sited place of condom in that order.

Risk status of sexual partners was also assessed as perceived by the respondents. Among sexually active students 74 (46.8%) had history of sexual contact with partners presumed to have one or more risk factors for HIV/AIDS. Higher proportion of male students reported sexual intercourse with high risk partner compared to female students.

Majority reported sexual abstinence or not involving in sexual intercourse in the past. The proposition or males was non-promising and worst score was higher when compared to female students.

Furthermore, majority of females categorized as having the lowest risk score compared to males.

Table 4: Mean and standard deviation of theoretical variable
of Alemaya University students, March 2005.

Theoretical variable	Male	Female
Knowledge	7.9572 (1.59164)	7.9360 (1.59507)
Motivation	13.2763 (2.6842)	13.3920 (2.76760)
Perceived susceptibility	16.1946 (3.04156)	16.2160 (2.88931)
Perceived severity	6.9531 (2.29016)	6.8065 (2.25121)
Perceived benefit	11.8872 (2.79489)	11.1440 (3.4301)
Perceived barrier	11.0156 (2.91141)	11.4240 (2.52172)
Outcome evaluation	2.7977 (3.81377)	24.1129 (3.57091)
Self-efficacy	6.4591 (2.34672)	6.0720 (2.13714)
Normative belief	14.3125 (4.63787)	14.1721 (3.96825)
Perceived behavioral control	16.5234 (5.16392)	15.0325 (4.85686)
Intention	3.4336 (1.29686)	3.1774 (1.31315)

s.d is in the bracket

Table 5: Correlation between theoretical constructs and past condom use among female ALEMAYA university students. March, 2005

Theoretical constructs	Correlation coefficients
Perceived severity	0.085
Perceived susceptibility	0.116
Perceived behavioral control	.106*
Normative belief	.144*
Perceived benefit	0.098
Self-efficacy	.109*
Perceived barrier	.162*
Outcome evaluation	.044

. *P < 0.05

Table 6: Correlation between theoretical constructs and past condom use among male Alemalya university students, March 2005.

Theoretical variable	Correlation Coefficient
Perceived Severity	.285
Perceived susceptibility	.971*
Perceived behavioral control	.197*
Normative Belief	.177**
Perceived benefit	.227
Self-efficacy	.194**
Perceived barrier	.149
Outcome evaluation	.062

. *P< 0.05

. ** P<0.01

Table 7: Regression analysis predicting intention to use condom among female ALEMAYA university students. March, 2005

Step	Predictor variables	Beta value	T
1	Perceived Susceptibility	-0.001	-0.007
	Perceived Severity	-0.0087	-1.074
	Perceived Benefits	.183	2.285*
	Perceived Barriers	.214	2.181*
	Normative belief	.204	2.593*
2	Knowledge	.001	-0.0005
3	Outcome evaluation	.103	1.265
4	Self- efficacy	.194	2.428*
5	Perceived Behavioral control	.165	2.036*

. P*<0.05

Table 8: Regression analysis predicting intention to use condom among male Alemaya University students, March 2005.

Step	Theoretical constructs	Beta value	T
1	Perceived susceptibility	- .142	-0.019
	Perceived severity	-0.69	-0.021
	Perceived benefit	0.158	1.014*
	Perceived barrier	0.008	0.146
	Normative belief	0.136	1.886
2	Knowledge	0.001	0.003
3	Outcome evaluation	0.241	1.764*
4	Self- efficacy	0.265	1.892*
5	Perceived behavioral control	0.361	2.865**

.P* <0.05

. **P<0.01

Discussion

HIV/AIDS is known to be the major challenges of developing countries however, it is much more challenging in sub-Saharan Africa affecting particularly the productive segments of their population, hence, it is hampering their development according to world bank report released in 2004.

Thus, it was in line with this fact, that a cross sectional study done in Alemaya University Student concerning their current risk sexual behavior and condom use status using health behavior model.

A Higher proportion of male university students were sexually active than their female counter parts (47% VS 29%) this fact was Augmented by a number of other studies done in different parts of the country. For instance, a survey done in Gonder College of medical science, showed strong evidence of the above facts (55.2% VS 8.3%) more over, A study done in Harar also showed similar facts in that nearly 50% of male were sexually active as opposed to 20% of female sexually active youths among the sampled population. Another study done in Southern Ethiopia, Awassa (Nigusse Taffa) Showed similar evidence (59.4% vs 38.9%)

AIDS – risk behaviors remain common. Some Studies on HIV-risk behaviors showed that, despite adequate knowledge about HIV/AIDS, higher proportion or people especially youths continue to experiment with high-risk behaviors (2) of the behaviors known to place individuals at risk of HIV-infection, having multiple sexual partners is probable the key concern in much of the sub-Saharan Africa. The number of sexual partner may be considered part of a larger patient or adolescent health-risk behavior. History or multiple sexual

partners was the main risk factor for HIV Infection along AIDS Patient in Ethiopia.

According to the reports in AIDS cases Submitted to Ministry of Health, 87% of the cases had histories or contact with multiple sexual partner (13.)

Results from this study also indicated this fact. One third of the sexually active university students had multiple sexual partners (life time) and one fourth of those who had sex in the past year also reported engaging in sexual act with more than one sexual partners.

Generally, male students were more likely to have multiple sexual partner than female students. Similar findings were also documented by other studies in Ethiopia, Lemma and Hass (1994) reported that a good numbers of the adolescents were involved with more than one sexual partner 63.2% of males and 30% of the females had had two or more sexual partners over the preceding twelve months. Gabie (1990), reported that among those sexually active high school students in Addis Ababa, 60.2% claimed to have had sexual relations with 2-5 partners and the majority of respondents used no protective methods at all (11.) These, this study showed similar evidence as other studies in that it was 49 (40%.) of male university Students had had multiple sexual practice. Studies have found that younger subjects were significantly more likely to report higher frequency of condom use during sexual intercourse (14.) The current study indicates that though there is a relatively higher condom use rate among the older students than the younger ones, this difference was not significant. The possible logical explanation for this would be as age increase the frequency of exposure to sexual act would increase with this also the likelihood of using

condom will increase farther more, as reported young adolescent may find it difficult to obtain condoms, they may not have the money and feel embarrassed to go to and buy them from stores. Consistent with other studies there is higher condom use rate among males compared to females University Students (16.)

The most common behavioral profile among sexually active University Students in this study was a teenager who had a protected sexual intercourse (which commence at early age) with partner (s) believed (not proved) to be at low risk for carrying HIV/AIDS risk behaviors index category 3 and 4.) Because in the absence of HIV/AIDS antibody testing, one cannot be certain that one's partner indeed is uninfected of particular conclude because of they greatly increased risk of HIV infecting are 7.6% of the students who had un protect sex with high-risk partner(s) or with history of STIS (AIDS risk behavior index.) These students are potentially at risk for HIV infection, particularly because of a rather high number of sexual partners, an irregular use of condoms in the past, involvement in sexual act with high-risk partner, and history of STIS.

To sum up, the above findings do tell us two things:- young people are sexually active at younger age, and few of them use condoms. If young people are having unprotected sex with several partners, or if their single partner has ever had other partners, they are exposed not just to pregnancy but also infection with sexually translated disease including HIV(10) .

Although a number of studies have documented the prevalence of AIDS risk and preventive behaviors among adolescents fewer have investigated theoretically or empirically suggested determinants of these behaviors. To this

regard, this study tried to demonstrate predictors of preventive behavioral intentions.

The current research also examined predictors of intention to use condoms at the next sexual intercourse among Alemaya University students. The results showed that consistent with the theory of planned behaviors and in both sexes, perceived behavioral control has the major predictive power than the other predictors in predicting intention to use condom at the next sexual intercourse. This result parallels those of number of studies across a wide range of health behaviors. (9,7).

Similar findings on intention to use condom, but from a different analyses approach has also been documented among Tanzanian adolescents. Furthermore, Among Nigerian University students and Sera lion, Freetown University Students, perceived behavioral control was the major predictors of future condom use indentation (12).

Concerning the relative importance of theoretical components, the strong effect was observed from perceived behavioral control and self – efficacy in predicting the intention to use condom at the next sexual intercourse. Among female students the important of the Social environment is documented. Normative belief predict condom use at the next sexual intercourse independently and significantly. Similar findings were also reported from Jmma High school student's, the Tanzania and Dutch Studies (10,13-).

There were a number of gender differences that indicate male University Students were involved more in AIDS related risk sexual behaviors compared to female students. Compared to females, male students reported higher score of

perceived more social support for safe sex practice, and perceive more efficacious is using condom in different situations. On the other hand, compared to males, female students perceive more the barriers towards the intention to use condom in the next sexual intercourse. These findings of gender difference were also well documented by other studies on condom use among adolescents (4,5,7,10).

Finally, the implication of the study findings is clear that the significant associations, which emerged from this research, should be incorporated into AIDS risk reduction programs. For example, individuals should be made aware of the dangers associated with being less concerned about multiple partnership and use condom in different situations. Programs must be designed in such a way that relevant others would also practice safe sex. Using relevant others for passing message and skills is required.

A key issue with respect to HIV primary prevention among the study population (both male and female) is to make risk reduction socially, normative within the vulnerable populations and how to produce these norm changes to curb the progress of the epidemic. Students will change their behaviors in response to the true expectations of others more than through changes in individual beliefs or attitudes. This suggests that deficit of shifting Social norms, individuals won't change. Therefore, the intervention plan must ensure that all channels reaching the network contain the same message to increase the perception that the new practice has wide support. In addition, intervention, which encourages community discussion on the issue, can be included with the assumption that such discussion will accelerate the process of social norm diffusion.

Strength and limitation of the study

A. Strength of the study

The nature of health behavioral model is to provide programmatic assessments and also used as intervention tool for a given health problems. Thus, this study is based on the health belief model along with two other variables of health behavior model namely, outcome evaluation and perceived behavioral control; these variables (HBM, outcome evaluation and perceived behavioral control) would provide a better quality information for intervention unlike other methods of questionnaire design (i.e. the bases of data tool and questionnaire development).

This study could also provide a better specific gaps and strength that will be used for intervention unlike other methods of questionnaire design; these was made after it had been contextualized with the study setting and source population. Thus, this study is also come up with a better reliable information.

Limitation of the study

- By virtue, this study is expected to be prone for the limitation of cross-sectional survey (temporal relationship).
- The diversity of the students (the study participant) were not duly acknowledged. Thus, the intent of their diversity in terms of religion, ethnicity and address (previous residence) could have an effect on the questionnaire development; these is because the explicit wisdom, values or culture of a given ethnic group, religion or previous environment are expected to have some kind of influence on current decisions related to sexual behavior in general, condom use status in particular.

Conclusion

- ◆ There are still risky sexual behavior among University students.
- ◆ More female Students were not used condom due to perceived barriers and they were not still powerful to negotiate safer sex.
- ◆ More male were categorized as having risky sexual behavior among sexually active students.
- ◆ Very less number of students were stable relation ship with their partner as compared to reported monogamous relation ship during life time sexual activity.

Recommendations:-

Based on the finding the following points are recommended:-

1. There should be a kind of mechanism that would potentiate female student's perceived susceptibility for HIV/AIDS, for instance, providing such information like every unprotected sexual act has got risky outcomes during adolescent period particularly in a setting like university where family-tie and values are less likely to influence decision on sexual matter
2. Discussion on matters related to HIV/AIDS particularly how it can be protected and issues that cloud enable to explain why condoms used by some portion of the students and why not others. Hence, this will encourage students to discuss the role of condom on HIV/AIDS prevention and control. Thus, university instructors, peer groups, intimate friends will have vital role in this aspect as it has been seen from the health belief model variable normative belief is the significant variables among past condom users.
3. Providing different skills to use condom in different situations:-among many factors, alcohol consumption, trusting one's partner and experiencing multiple sexual act were known to put an individual at higher risk of HIV/AIDS because of unprotected sexual practice. Thus, in this research as well, significant number of sexually active students were not used protective sex. However, the remaining sexually active students practiced the recommend rule.

This finding tell us two things:- one is those student who were capable of using condom persistently in different situations should be told about either behavioral change on such risk factors though they were persistently using it in

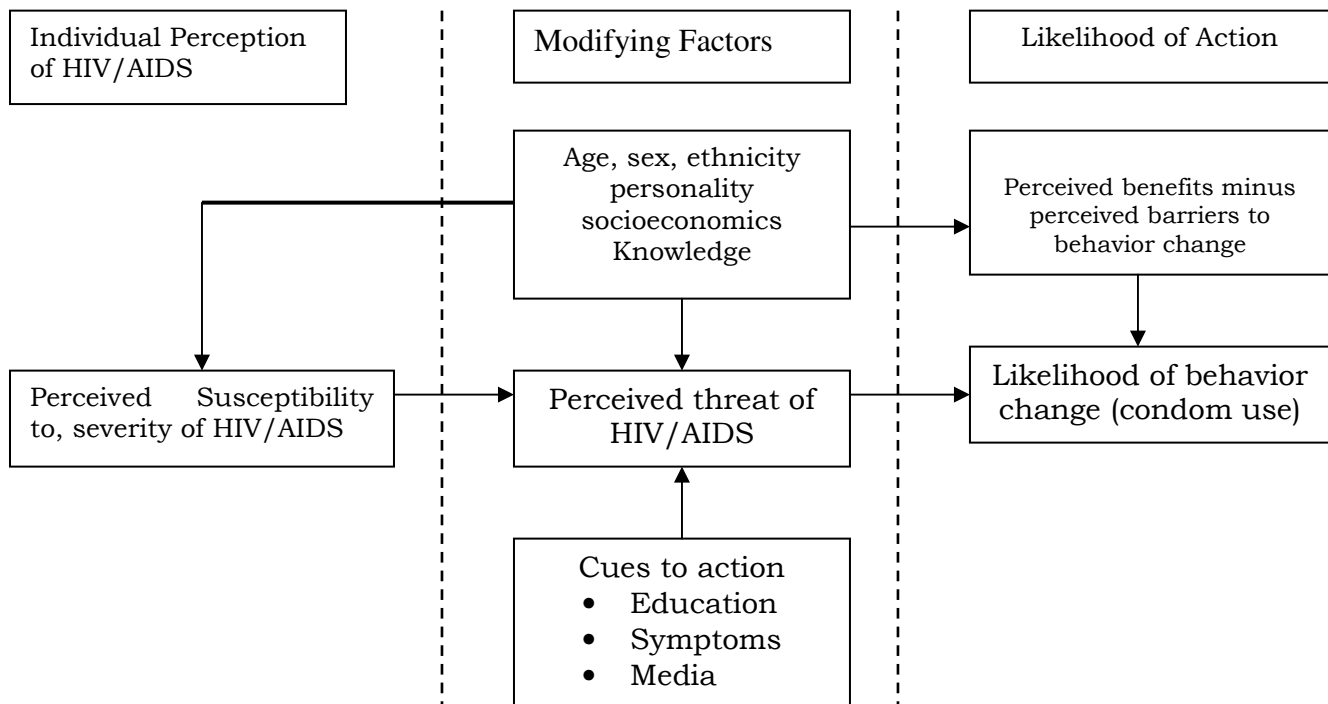
different situation, this is because, such group of people may not be a good role model to educate others as exemplary. OR the remaining sexually active students who were not using condom persistently should be told about persistent use of condom in different situations plus not practicing sex with multiple sexual partner and discouraging sex after drinking alcohol. However, the objectives of this research is not only this group of population, rather it can be used those gaps mentioned above to be used for the whole Alemaya university students, possibly, across all over Ethiopian higher education.

- 4.** Prospective studies on HIV/AIDS using health behavioral model would provides a better understanding of the situation among university students. Thus, it will be good and start to profile University students sexual behavior including other reproductive health services as well.

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Conceptual frame works of Health belief model



STUDENT SELF REPORTING QUESTIONNAIRE

TO BE FILLED BY ALEMAYA UNIVERSITY STUDENTS

SEX OF PARTICIPANT (MALE/FEMALE)

March 2000

Dear student,

In ensuring the health of adolescents the understanding of existing problems and related behaviors of this group of the population is important. In line with this a study was proposed to assess the health behaviors of University Students and you are chosen to participate in this study. The choice was done randomly using a lottery type of approach.

The purpose of this study is to generate information on behavior of University Students that can be used to design health education. The study will involve various intimate and private life questions. In order to effectively attain the goal we are asking you for your help. Here is a survey for you to complete. There is no need to put your name on the survey; no individual response will be reported. It is your full right to refuse to answer any or all of the questions. If you don't want to participate you can leave the format on the table (up side down). But, you are requested to remain in your seat until others finish filling the format. Please take a few minutes to answer to the questions.

Do you wish to participate in the study?

Yes, I want to participate in the study. (please go to the next page)

No, I don't want to participate in the study.

Thank you very much?

PART ONE: General Information

The following are general questions and statements for you. Please indicate your response by circling the number of your choice.

1.2 Your age in years -----

1.3 Your academic year 1. 1st year 2. 2nd year 3. 3rd year

1.4 Are you currently married? 1. No 2. Yes

1.5 What is your religion? 1. Orthodox 2. Protestant 3. Muslim 4. Jehovah witness
 5. Catholic 6. Other religion 7. Non-religious

1.6 What is your ethnic group? 1. Oromo 2. Amhara 3. Gurage 4. Tigre
 5. Other

1.7 Family size (the number of people living with you in your family) -----

1.8 Is your father currently alive? 1. No 2. Yes

If your answer to question number 1.8 is No, then SKIP to question number 1.11. But, if your answer is Yes answer the following question.

1.9 What is your father's educational status in terms of grade completed?

1. Illiterate 2. Read and write only 3. Grade 1-4 4. Grade 5-8
5. Grade 9-12 6. Above grade 12

1.10 What is your father's employment status?

1. Unemployed 2. Government employed 3. Self-employed 4. Other

1.11 Is your mother currently alive? 1. No 2. Yes

If your answer to question number 1.11 is No, then SKIP to question number 2.1. But, if your answer id Yes answer the following question.

1.12 What is your mother's educational status in terms of grade completed?

1. Illiterate 2. Read and write only 3. Grade 1-4 4. Grade 5-8
5. Grade 9-12 6. Above grade 12

1.13 What is your mother's employed status

1. Unemployed 2. Government employed 3. Self-employed 4. Other

PART TWO:

As it is mentioned earlier all the information you are giving will not be reported as individual responses. For this reason please don't write your name or ID number on the questionnaire. Your honest responses are requested.

2.1 At what age (in years) was your first menses? -----{ FOR FEMALE RESPONDENTS ONLY }

2.2 Have you ever had sexual intercourse in the past? 1. No 2. Yes

If your answer to question number 2.2 is No, then SKIP to question number 2.18. But, if your answer is Yes answer the following question.

2.3 At what age did you have your first sexual intercourse?

2.4 How many different sexual partners did you had in the past?

1. Only one partner Two to five partners 3. More than five partners

2.5 How frequently were you using condom during your sexual intercourse episodes?

1. Never used 2. Sometimes 3. Most of the times 4. Always

2.6 Have you ever had genital symptoms of STIs (ulceration around your genitalia and/ or discharge) in the past?

1. No 2. Yes

2.7 Does it happen that you had sex with the following individuals? (make your responses for all of the questions)

2.7.1 Person(s) you have known for a period of less than three weeks(casual partner)?

1. No 2. Yes

2.7.2 Person(s) who had (presumed) multiple sexual partners? 1. No 2. Yes

2.7.3 Partner(s) who had (presumed) sexually transmitted infections (STIs)?

1. No 2. Yes

2.7.4 Commercial sex workers(s) or person (s) who did have presumed sexual intercourse with CSW(s). 1. No 2. Yes

2.8 Do you currently have a steady sexual partner/ someone with whom you have been having sex with for at least three months? 1. No 2. Yes

2.9 Have you ever discussed your sexual history with any of the following individuals? (mark all applicable)

1. Never discussed 2. Friends(s) 3. Parent(s) 4. Sexual Partner(s)
5. Teacher(s) 6. Other person(s)

2.10 Have you ever had sex after having alcohol? 1. No 2. Yes

2.11 If yes, was condom used? 1. No 2. Yes

2.12 For female students only; did you ever used any other contraceptive other than condom?

1. No 2. Yes

Now the following questions will continue to ask you about your sexual experience in the past one year. Please try to remember all the encounters you had in the past twelve months. Again, all this information will remain completely anonymous.

2.13 Did you have sexual intercourse in the past one- year (12 months)? 1. No 2. Yes

If your answer to question number 2.13 is No, then SKIP to question number 2.18 otherwise answer question 2.14

2.14 How many different sexual partners did you have in the past one year (12 months)?

1. Only one partner 2. Two five partners 3. More than five partners

2.15 How frequently were you using condom during your past year's (12 months) sexual intercourse episodes?

1. Never used 2. Sometimes 3. Most of the times 4. Always

2.16 The reasons for you to use condom during sexual intercourse were, (Mark all your reasons)

1. I never used condom with my partner
2. Want to prevent pregnancy
3. Didn't discuss about it with my partner
4. Want to prevent HIV/AIDS
5. Don't trust my sexual partner
6. Don't know sexual partner well
7. Other reason(s)

2.17 What were the reasons for you not to use condom during sexual intercourse? (Make all your reasons)

1. I used condom always
2. Dislike condoms
3. Didn't discuss with my sexual partner
4. Couldn't find condoms
5. I am in love with my partner
6. Condom is expensive
7. I have trust on my partner free
8. Didn't have reason to use
9. Sure that my partner is disease
10. Partner didn't like condom to be used
11. Other reason(s)

2.18 From where did you hear about HIV/AIDS in the past? (make all applicable source of information)

1. Family
2. Church/Mosque
3. Health Facility
4. Neighbors
5. Theater/Cinema
6. School
7. Frinds
8. Poster/pamphlets
9. Radio
10. Television
11. Newspaper1
12. Never heard

2.19 Have you been though about AIDS/HIV infection at school? 1. No 2. yes

2.20 Did you know anyone who have/ had HIV/AIDS/ 1.No 2. Yes

2.21 Where do you think one can get condom if he/she wants to use/ (mark all your possible sources)

1. School
2. Hotels Bars
3. Health facility
4. Theater/cinema
5. Shops
6. Pharmacy
7. Church/Mosque
8. Other place
9. I didn't know

2.22 How Much is the cost of three condoms?

1. Less than 50 Cents
2. 50 Cents to 1 birr
3. More than one birr
4. Don't know

PART THREE: The following are statements regarding HIV/AIDS and Condoms. Mark (✓) in the boxes provided according to your degree of agreement to the statements. Example, for the

statements you are sure of its truth mark strongly agreed and for that of false statement strongly disagree

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
3.1. Infected Person who appears healthy can't transmit the disease.	☐	☐	☐	☐	☐
3.2. At present there is cure for AIDS.	☐	☐	☐	☐	☐
3.3. There is a vaccine available to the public that protects a person from getting AIDS.	☐	☐	☐	☐	☐
3.4. A person with multiple sexual partners has more risk of infection with HIV/AIDS.	☐	☐	☐	☐	☐
3.5. Another source of getting HIV/AIDS infection could be injection with unsterile needles.	☐	☐	☐	☐	☐
3.6. We can get AIDS by attending school with a child who has the AIDS virus.	☐	☐	☐	☐	☐
3.7. A mosquito who feed on AIDS patient's blood can transmit the disease.	☐	☐	☐	☐	☐
3.8. A pregnant woman who has the AIDS virus can pass it to her baby.	☐	☐	☐	☐	☐
3.9. Egg of hen who licked on condom used by AIDS patient can have the virus.	☐	☐	☐	☐	☐
3.10. Having sex with only one faithful sexual partner reduce the risk of HIV infection.	☐	☐	☐	☐	☐
3.11. One can prevent HIV/AIDS by avoiding sex	☐	☐	☐	☐	☐

(that means no sex).	
3.12. By avoiding sex with multiple partners one can prevent HIV infection.	☐ ☐ ☐ ☐ ☐
3.13. Using condom during sexual intercourse can reduce the risk of HIV infection.	☐ ☐ ☐ ☐ ☐

The following statements are written to describe your behavior. Mark (✓) in the boxes provided according to our degree of agreement to these statements. As you can see there is no need to write name or ID in this study, all information will remain anonymous. Therefore, your honest answer is important to us.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.1 With my current sexual behavior my chance of getting HIV/AIDS infection in the next five years is high.	☐	☐	☐	☐	☐
4.2 I feel it is likely for me to get HIV/AIDS if I have sexual intercourse with different partners.	☐	☐	☐	☐	☐
4.3 I feel it is likely for me to get sexually transmitted infections if a condom is not used during sexual intercourse?	☐	☐	☐	☐	☐
4.4 If I get infected with AIDS virus I will definitely die consequently.	☐	☐	☐	☐	☐
4.5 I would rather have any other terminal illness than AIDS.	☐	☐	☐	☐	☐

Here are statements regarding abstaining from sex before marriage, How true are these statements compared to your actual behavior? Mark (✓) in the boxes provided according to your degree of agreement to these statements. If you are not sure of it mark in the box under “Neutral”.

4.6 <i>‘I am not sure that I would be able to say NO having sexual intercourse.....’:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.6.1 With someone I have dated for along time	☐	☐	☐	☐	☐
4.6.2 With someone I want to fall in love with.	☐	☐	☐	☐	☐
4.6.3 With someone who is pushing me to have sexual intercourse.	☐	☐	☐	☐	☐
4.6.4 With someone after I have been drinking alcohol.	☐	☐	☐	☐	☐

4.7 <i>‘For me avoiding sex before marriage will protect me and my partner.....’:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.7.1 from having unwanted pregnancy.	☐	☐	☐	☐	☐
4.7.2 from getting sexually transmitted diseases.	☐	☐	☐	☐	☐
4.7.3 from getting HIV/AIDS.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.8 Refusing sex with a causal partner will make it seem that I am sexually weak	☐	☐	☐	☐	☐
4.9 I may lose my partner is I say no to have sex.	☐	☐	☐	☐	☐
4.10 To get a better partner I must try several partners even with sexual intercourse.	☐	☐	☐	☐	☐

4.11 Refusing sex with may steady partner will make it seem that he or she has AIDS.	☐	☐	☐	☐	☐
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<i>'I very much want to.....':</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.12 prevent myself/my lover from getting pregnant	☐	☐	☐	☐	☐
4.13 protect myself from getting sexually transmitted disease.	☐	☐	☐	☐	☐
4.14 protect myself from getting AIDS	☐	☐	☐	☐	☐
4.15 show my lover that I care about his or her health	☐	☐	☐	☐	☐

4.16 <i>'The following individuals would approved of my avoiding sex before marriage.'</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.16.1 My lover	☐	☐	☐	☐	☐
4.16.2 My close friend (s)	☐	☐	☐	☐	☐
4.16.3 My Teacher (s)	☐	☐	☐	☐	☐
4.16.4 My parent (s)/ Relative(s)	☐	☐	☐	☐	☐
4.16.5 Religious Leaders	☐	☐	☐	☐	☐

4.17 <i>'I am certain that I would be able to avoid sex before marriage even if':</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.17.1 I am drunk.	☐	☐	☐	☐	☐
4.17.2 I am forced by my friends.	☐	☐	☐	☐	☐
4.17.3 I am told that condom will be used.	☐	☐	☐	☐	☐

4.17.4 I know I may lose my partner.	☐	☐	☐	☐	☐
4.17.5 to a partner with whom I want to fall in love with.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.18 'From now onwards, I intend to avoid any sex before marriage'.	☐	☐	☐	☐	☐

The following statements are concerning limiting the number of sexual partners to only one. How true are these statements compared to your actual behavior? Show your agreement or disagreement by marking (✓) in the boxes provide under your choice.

<i>4.19 'Remaining with on steady sexual partner</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.19.1 will protect me from getting sexually transmitted diseases.	☐	☐	☐	☐	☐
4.19.2 will protect me from getting AIDS	☐	☐	☐	☐	☐
4.19.3 can show my sexual partner that I care about his/her health.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.20a Limiting my sexual desire to only one partner will reduce my sexual pleasure.	☐	☐	☐	☐	☐
4.21 To avoid sex with partners other than may steady	☐	☐	☐	☐	☐

sexual partner will make me seem sexually weak	
4.22 Refusing sex with a causal partner will make it seem that he/she has AIDS.	☐ ☐ ☐ ☐ ☐

<i>'I very much fear':</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.23 suspecting my sexual partner of having AIDS	☐	☐	☐	☐	☐
4.24 losing my boy/girlfriend.	☐	☐	☐	☐	☐
4.25 not finding appropriate sexual partner for me.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.26 'My best friend would make a fool out of me if I limit myself to only one stead sexual partner'.	☐	☐	☐	☐	☐
4.27 'My teacher would approve of may limiting to only one steady sexual partner'.	☐	☐	☐	☐	☐
4.28 'If I limit myself to only one steady sexual partner, my parents would approve my action'.	☐	☐	☐	☐	☐
4.29 'My religious leaders would approve of my limiting my sexual activity to only one steady partner'	☐	☐	☐	☐	☐

<i>4.30 'I would like to do what':</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.30.1 my sexual partner think (s) that I should do'.	☐	☐	☐	☐	☐
4.30.2 my close friend (s) think (s) that I should do'.	☐	☐	☐	☐	☐

4.30.3 my teacher (s) think (s) that I should do’.	☐	☐	☐	☐	☐
4.30.4 my parent (s) think (s) that I should do’.	☐	☐	☐	☐	☐
4.30.5 my religious leader (s) think (s) that I should do’.	☐	☐	☐	☐	☐

4.31 <i>‘I am certain that I would be able to limit myself to only one steady sexual partner even if’:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.31.1 I am told that that condom would be used	☐	☐	☐	☐	☐
4.31.2 I am pushed by my friends to have sex with a new partner.	☐	☐	☐	☐	☐
4.31.3 I meet someone I have been very much thinking of.	☐	☐	☐	☐	☐
4.32 ‘From now onwards, I intend to limit my sexual contact to only one steady sexual partner’.	☐	☐	☐	☐	☐

The following statements are concerning condom use. How true are these statements compared to your actual behavior? Show your agreement or disagreement by marking (✓) in the boxes provided under your choice.

<i>‘I am sure that I would be able to’:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.33 insist on using a condom during sex even if my boyfriend or girlfriend refuses to use a condom.	☐	☐	☐	☐	☐
4.34 get the money to buy condom.	☐	☐	☐	☐	☐

4.35 <i>‘I think my using condom at the next sexual intercourse would’:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
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4.35.1 prevent my sexual partner /me from becoming pregnant	☐	☐	☐	☐	☐
4.35.2 protect me from getting a sexually transmitted disease.	☐	☐	☐	☐	☐
4.35.3 protect me from getting AIDS.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.36 Condom is difficult for me to use.	☐	☐	☐	☐	☐
4.37 Condom create doubts between sexual partners.	☐	☐	☐	☐	☐
4.38 Condom are shameful for me to buy.	☐	☐	☐	☐	☐

<i>'I very much fear':</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.39 not be able to use condom properly	☐	☐	☐	☐	☐
4.40 reduce my sexual desire.	☐	☐	☐	☐	☐
4.41 being uneasy.	☐	☐	☐	☐	☐
4.42 introducing feelings of distrust between my sexual partner and me.	☐	☐	☐	☐	☐
4.43 seeming sexually weak.	☐	☐	☐	☐	☐

4.44 <i>'The following people would approve of my using condoms at the next sexual intercourse'.</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.44.1 My sexual partner (s)	☐	☐	☐	☐	☐

4.44.2 My best friend (s)	☐	☐	☐	☐	☐
4.44.3 My teacher (s)	☐	☐	☐	☐	☐
4.44.4 My parent (s)	☐	☐	☐	☐	☐
4.44.5 My religious leader (s)	☐	☐	☐	☐	☐

<i>'I am certain that I would be able to use condom at the next sexual intercourse even if:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.45.1 I am drunk	☐	☐	☐	☐	☐
4.45.2 I feel shy to discuss using condoms with my partner.	☐	☐	☐	☐	☐
4.45.3 I feel embarrassed to buy condoms	☐	☐	☐	☐	☐
4.45.4 my sexual partner refuses to use condoms	☐	☐	☐	☐	☐
4.45.5 I have sexual intercourse with someone I have been very much thinking of.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
4.46 'I intend to use a condom at the next sexual intercourse'.	☐	☐	☐	☐	☐

PART FIVE: FUTURE PLAN

5.1 Which of the following behavioral changes do you plan to use in the future to prevent yourself from being infected with HIV/AIDS/ (Mark all your choices in the spaces provided)

- | | |
|-------------------------------------|-------------------------------------|
| 1. Reduce number of sexual partners | 2. Select carefully sexual partners |
| 3. Abstain from sexual intercourse | 4. Have good food |

- | | |
|---|--|
| 5. Avoid unsafe injections and/or sharp objects | 6. Look for symptoms of AIDS before any sexual intercourse |
| 7 Reduce frequency of sexual intercourse | 8. Avoid sex with casual partners |
| 9 Strictly remain with one regular partner | 10. Prayed to God |
| 11. Do regular exercise | 12. Always, using condom during sexual intercourse |
| 13. Other method | |

5.2 Assume the test for HIV/AIDS is available; will you be interested to be tested for HIV/AIDS?

1. No 2. Yes

5.3 Assume you are tested for HIV/AIDS; will you be willing to hear the result of your test? 1.

- No 2. Yes

This is the end of this questioning. As promised at the beginning, your individual responses will not be exposed and you are not requested to write your name or ID.

THANK YOU!

Scoring method

Condom use at the next sexual intercourse

- Self-efficacy Σ (4321-4322)
- Perceived benefit Σ (4341-4343)
- Perceived barrier Σ (4351-4353)
- Outcome evaluation (Desirable and undesirable) Σ (4121-4123) and Σ (4381,4384,4383)
- Normative belief Σ ((4431-4435)
- Perceived behavioral control Σ (4441-4445)
- Intention Σ (445)

DECLARATION

I, the undersigned, declare that, this thesis is my original work, has never been presented in this or any other university, and that all resources and materials used herein have been duly acknowledged.

Name: Negash Beyan, B.SC.

Signature: _____

Place: Addis Ababa University, Ethiopia

Date of submission: July, 13 -08-2005

This thesis has been submitted for examination with my approval as a university advisor.

Name : Dr. Mesfin Addisse (MD, MPH)

Signature _____