

Testing the ABC approach for Infection Prevention and Averting Unintended Pregnancies among Youth in Institutions of Higher Learning



Assessment Report

December 2010



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Testing the A-B-C Approach for Infection Prevention and Averting Unintended Pregnancies among Youth in Institutions of Higher Learning

Assessment report

Collaborating Partners

University of Nairobi, I Choose Life, FHI

Jennifer Liku, Anne Kioko, Karen Katz

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Acronyms

AIDS	Acquired Immunodeficiency Virus
BCCGs	Behavior Change Communication Groups
CRTU	Contraceptive Reproductive Health Research Technologies and Utilization
ERC	Ethical Review Committee
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
ICL	I Choose Life
IDI	Indepth Interview
KDHS	Kenya Demographic and Health Survey
KEMRI	Kenya Medical Research Institute
KNBS	Kenya National Bureau of Statistics
KNH	Kenyatta National Hospital
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHSC	Protection of Human Subjects Committee
PLHIV	People Living with HIV
RH	Reproductive Health
SD	Standard Deviation
SRH	Sexual Reproductive Health
STIs	Sexually Transmitted Infections
SWA	Students Welfare Association
UON	University of Nairobi
USAID	United States Agency for International Development
USIU	United States International University
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

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Executive Summary

Young people are at risk of unintended pregnancy and sexually transmitted infections (STIs) including HIV. Supporting young people empowers them to protect themselves against STIs and unintended pregnancies. Though they have grown up in a world changed by AIDS, many still do not understand the epidemic. Informing and educating young people are important techniques used to tackle the epidemic.

Currently, one third of infected individuals are youth ages 15 to 24 years and half of all new infections occur in youth the same age. The epidemic has had a devastating effect on most African youth who often lack access to sexual health information and services. Further, cultural, social, and economic norms and pressures often put young African women at excess risk for HIV infection. Young people need information, skills, youth friendly services, and a safe and supportive environment.

The challenge of HIV and AIDS is part of other challenges they face including unintended pregnancy and substance abuse among others. According to the 2009 Kenya Population and Housing Census, there are about 8 million Kenyans aged between 15 and 24 years and among these 37% of the females and 44% of the males are sexually active. However, use of condoms to prevent STIs including HIV and contraceptive use for pregnancy prevention is relatively low.

University students are one group of young people who are at risk of contracting STIs. Limited contraceptive use also predisposes them to the risk of unintended pregnancies. Abstinence, being faithful to one uninfected partner and condom use are behaviors that are often included together under a comprehensive “ABC” approach. Since 2004, FHI has collaborated with I Choose Life-Africa (ICL), a non-governmental organization in Kenya on a project at the University of Nairobi (UON) to increase reproductive health (RH) awareness on the prevention of STI/HIV and unintended pregnancies among students. This PEPFAR-funded project aimed at creating behavior change among the students by reducing their susceptibility to STIs/HIV and unintended pregnancies. The effort that started in two campuses has expanded to all seven campuses of the UON and included self-sponsored students commonly known as Module II students. The project utilizes the peer education approach blended with behavior change communication strategies, sexual reproductive health (SRH) messaging and VCT campaigns.

Objectives

The study’s general objective was to assess the effect of the ABC approach on knowledge, attitudes and sexual behavior of students at the UON. Specific objectives were:

1. To identify exposure to ABC programmatic activities and retention of programmatic messaging by regular students;
2. To determine the HIV and RH knowledge, attitudes and sexual behaviors of regular students;
3. To describe self-reported changes in the sexual behavior of regular students ;
4. To assess the HIV and RH prevention needs of regular students;

5. To describe the SRH knowledge attitudes and behaviors of Module II students as well as their views on and suggestions for improvement of activities targeted to them; and,
6. To describe the challenges and lessons learned from implementing ABC programmatic activities as identified by key informants (qualitative data).

Methods

This was a cross-sectional survey. Data were collected from respondents at the UON including students, peer educators, peer educator supervisors, project staff, and university administrative staff. Registers from halls of residence and Module II program were used to draw the study sample. A self-administered structured questionnaire was utilized and research assistants visited rooms in the halls of residence or lecture halls where Module II students were having their classes to trace respondents and administer informed consent and the questionnaire. First year students were excluded from the study since they had not yet had opportunity to participate in UON ABC activities.

The EpiInfo data entry package was used for the survey data. Verbatim responses from key informants and focus group discussion participants were transcribed using a standardized transcription protocol. For analysis, the SPSS software was used.

The results fall under these broad themes: reproductive health knowledge and attitudes including knowledge of and attitude on abstinence, being faithful and condom use (ABC); STI/HIV transmission and prevention; sexual relations and practices focusing on sexual activity, abstinence, number of sexual partners, condom use, contraception, HIV testing and risk perception; and exposure to the 'ABC' intervention including RH/HIV messaging, contact with peer educators and influence of messages shared.

Approval to conduct the study was obtained from FHI's Protection of Human Subjects Committee (PHSC) and Kenya Medical Research Institute- Ethical Review Committee (KEMRI-ERC).

Results

1262 students participated in the survey, 70% male and 30% female with a mean age of 23 years. Knowledge on ABC was relatively high (over 70%). Attitude towards ABC was not entirely positive and religious undertones were evident. STI/HIV knowledge was high and students' attitude towards the same was favorable.

Of 1198 students who responded to the question on ever had sex, 70% reported having had sex. The mean age at first sexual intercourse was 17 years. Of the 671 who responded to the question on multiple sexual relations, 21% answered in the affirmative. However, 22% did not have a sex partner in the three months preceding the survey and 27% had only one partner within the same period.

Forty-three per cent of the 671 who responded reported using condoms all the time within the three months preceding the survey; more male (70%) than female students (59%) reported contraceptive use. HIV testing was reported at 77% but discussions on the test

among partners were lower, 58%. On risk perception, 31% said they were not at risk while 47% said there was a small chance of risk. In terms of substance use 41% reported consuming alcohol.

While 52% reported abstaining in the past year, 65% said they were likely to abstain in the next three months and more males (54%) reported that they were very likely to use a pregnancy prevention method.

Asked about exposure to the ABC intervention, 90% said they had heard about ICL. More students reported receiving information on HIV (63%) compared to only 38% who reported receiving info on pregnancy prevention; 75% said info received from ICL encouraged them to be faithful to one partner. Contact with peer educators was, however low at 34%.

Recommendations

1. The results show that most students were sexually active before they joined the university (sexual debut: 17 years). There is need to target young people earlier with STI/HIV and RH messages.
2. Students should be advised on and encouraged to adopt more effective contraceptive methods.
3. Since students reported sexual activity but non use of methods to prevent STI/HIV and unintended pregnancies, the ABC project needs to redouble effort to positively influence students' behavior.
4. Students should be continuously sensitized on personal risk reduction options.
5. Due to the close relationship between substance use and unprotected sex, the project should emphasize on the need for consistent protection against STI/HIV and pregnancy and develop appropriate messages on the same.
6. The project should establish the factors associated with the weak link between the peer educators and the other students.

1 INTRODUCTION

1.1 Background

“Young people are the key in the fight against AIDS. By giving them the support they need, we can empower them to protect themselves against the virus. By giving them honest and straightforward information, we can break the circle of silence across all society. By creating effective campaigns for education and prevention, we can turn young people’s enthusiasm, drive and dreams for the future into powerful tools for tackling the epidemic.”

- Kofi Annan, United Nations Secretary-General, in a speech given at Zhejiang University, China, in October 2002

Young people remain at the centre of the global HIV and AIDS epidemic in terms of rates of infection, vulnerability, impact, and potential for change. They have grown up in a world changed by AIDS but many still lack comprehensive and correct knowledge about how to prevent HIV infection. Young people are diverse and interventions must be tailored to meet their individual characteristics and circumstances, such as age, sex, religion, socioeconomic and marital status and domestic arrangements among other factors. They face the economic and social impact of HIV and AIDS on families, communities, and nations, and they must be at the centre of prevention efforts.

Statistics for the end of 2009 indicates that around 33.3 million people were living with HIV, with an estimated 22.5 million people living in sub-Saharan Africa (UNAIDS 2010). One-third of all currently infected individuals are youth ages 15 to 24, and half of all *new* infections occur in youth the same age. More than five young people acquire HIV infection every minute; over 7,000, each day; and more than 2.6 million each year. Of the 1.7 billion young people worldwide, 5.4 million are estimated to be living with HIV (UNAIDS/WHO 2007).

Although HIV and AIDS rates vary considerably throughout sub-Saharan Africa (generally lower in western Africa and higher in southern Africa) the epidemic has had a devastating effect on most African youth who often lack access to sexual health information and services. In particular, unmarried youth have great difficulty getting needed sexual health services. At the same time, cultural, social, and economic norms and pressures often put young African women at excess risk for HIV infection. Young people are particularly vulnerable to HIV infection for social, political, cultural, biological, and economic reasons. Whatever their circumstances, in order to protect themselves against HIV, young people need information, skills, youth-friendly health services, and a safe and supportive environment.

Apart from the challenge of HIV and AIDS, young people also face other reproductive health challenges including pregnancy and the associated hurdles. According to the 2009 Kenya Population and Housing Census data, there are about 8 million young Kenyans aged between 15 and 24 years and about 700,000 of them live in Nairobi city (KNBS, 2010). Further, the 2008-09 Kenya Demographic and Health Survey (KDHS) indicates

that almost 37% of young women and 44% of young men aged 15-19 years are sexually active while 86% of young women and 88% of young men aged 20-24 years are sexually active; 11% of women aged 15-19 years were married as were 52% of those aged 20-24 years; 14% of women aged 15-19 years have ever used any contraceptive method, and 13% have used a modern contraceptive method. For the group of women aged 20-24, over 57% have used any method and 52% have used a modern method. Further, 23% of sexually active unmarried women aged 15-19 and 59% of those aged 20-24 were using a modern contraceptive method; 20% and 30% of currently married women aged 15-19 and 20-24 respectively were using a modern contraceptive method. Condom use among all sexually active women aged 15-24 years was negligible (about 2%) while use among sexually active unmarried women was relatively high: 19.6% for those aged 15-19 and 31.2% for those aged 20-24 years (KNBS & Macro 2010).

Country-level data show that continued investment in effective reproductive health services/programs including prevention and treatment strategies is essential to protect young people from the current developmental vulnerabilities. Whereas strategies must be tailored to the developmental needs of this age group and their social contexts, effective approaches are multifaceted. Although progress has been made since the 1994 International Conference on Population and Development, adolescents continue to be disproportionately burdened by threats to their sexual and reproductive health.

Abstaining from sexual activity, mutual monogamy and condom use are three key behaviors that can prevent or reduce the likelihood of sexual transmission of infections including HIV and unintended pregnancy. These behaviors are often included together under a comprehensive “ABC” approach (USAID, 2004). University students are one group of young people who are at risk of contracting sexually transmitted infections, including HIV, due to risky behaviors’ such as early sexual initiation, multiple sexual partners, and lack, low or intermittent condom use. Low levels of contraceptive use and the resultant high levels of unintended pregnancy and abortion have also been identified as a problem among university students in Kenya (FHI, 2007).

2 INTERVENTION

2.1 The ABC approach

Since 2004, FHI has been collaborating with a local Faith Based Organization in Kenya, I Choose Life (ICL) on a project titled “*The ABC Approach for Infection Prevention and Averting Unintended Pregnancies among Youth in Institutions of Higher Learning*” also referred to as the “ABC” project at the University of Nairobi (UoN) with support from PEPFAR through USAID. Incepted in 2002, ICL’s main objective was to create behavior change among youth in institutions of higher learning by reducing their susceptibility to sexually transmitted infections including HIV. Locally, there have been few interventions targeting this category of youth. This prevention intervention initially emphasized abstinence and being faithful to one uninfected partner in order to achieve behavior change and specifically HIV prevention. The program model utilizes training of peer educators whose responsibility is to form behavior change communication groups

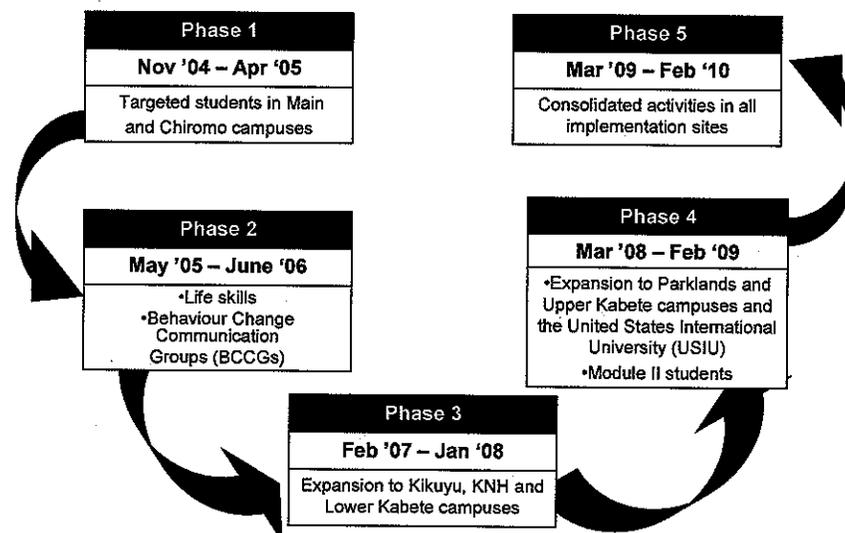
(BCCGs) to further discuss HIV-related issues. The BCCGs bring together about ten students and two trained peers educators to discuss reproductive health issues

The collaboration with FHI significantly strengthened programmatic areas that ICL had been involved in before, specifically, training of peer educators, HIV prevention messaging, thematic events and establishment of BCCGs and introduced a broader focus on reproductive health issues including condom use and prevention of unintended pregnancies.

The ABC project started in two campuses of UON, Main and Chiromo and targeted first year students. It has since expanded to UoN's other five campuses - Kenyatta National Hospital (KNH), Kikuyu and Lower and Upper Kabete and Parklands - and another institution, the United States International University (USIU). A 20-hour peer education training curriculum on life skills was developed with technical assistance from FHI and a mass media component/radio series dubbed "Love, Life and Lust" was introduced in 2007. It featured a series of messages on topics such as pregnancy, rape, ABC, HIV testing and stigma against PLHIV.

During the 2008/2009 academic year, the program expanded to target self-supporting students at the university commonly known as parallel or Module II students. Unlike the other students, they do not receive government loans for tuition from the university and do not usually live in university halls of residence. Typically, these students attend evening and weekend classes to enable them to meet their work, home and school requirements. While Module II students are welcome to attend all ABC events, their schedules make it hard for them to participate in most activities. They, therefore, have their own peer educators who are available for them at times that fit into their schedule (see diagram below).

Intervention Phases



Since the inception of the ABC approach in the UON in 2004, only one mid-term review has been conducted to inform the implementation of the intervention. This was to assess the effect on first-year students' behavior of 'edutainment' with messages on abstinence and being faithful to one uninfected partner. Four edutainment events geared toward first-year students were conducted between December 2004 and March 2005. A quasi-experimental design with a control group was employed. Findings indicated that the intervention did not have a great effect on the knowledge, attitudes and behaviors of first-year students at the UON. Possible reasons given included the intervention's short, although intense implementation period, low coverage, and the complicated nature of behavior change.

In the last phase of project implementation (2009/2010), an assessment of project activities was conducted to determine the effect of the intervention on various aspects of students' lives. The assessment had the following objectives.

2.2 Objectives

2.2.1 General objective

To assess the effect of the ABC approach among students of the University of Nairobi on their knowledge, attitudes and sexual behavior (practice) in relation to sexual and reproductive health messages for prevention of HIV and unintended pregnancies.

2.2.2 Specific objectives

1. To identify exposure to ABC programmatic activities and retention of programmatic messaging by regular students;
2. To determine the HIV and RH knowledge, attitudes and sexual behaviors of regular students;
3. To describe self-reported changes in the sexual behavior of regular students ;
4. To assess the HIV and RH prevention needs of regular students;
5. To describe the SRH knowledge attitudes and behaviors of Module II students as well as their views on and suggestions for improvement of activities targeted to them; and,
6. To describe the challenges and lessons learned from implementing ABC programmatic activities as identified by key informants (qualitative data).

3 METHODS

3.1 Overview of study design

In January 2010 a cross-sectional survey was carried out among a representative sample of students in the University of Nairobi, where the ABC program has been running since 2004. In addition focus group discussions and key informant interviews were conducted with peer educators, peer educator supervisors, ABC project staff and representatives of the university administration.

3.2 Study site

The study site was the University of Nairobi. Students from all campuses were sampled for inclusion in the study. The university student population was estimated to be about 35,000, that is, government-sponsored students, also known as Regular students and Module II students at a ratio of 1:1. The campuses are within the colleges of Architecture and Engineering, Humanities and Social Sciences, Medicine, Pharmacy, Science and Dental Science. Students have been exposed to 'ABC' messages through peer education, supervision, discussions within BCCGs, thematic events and VCT drives where information is passed on to the student community.

3.3 Study population

Students in 2nd, 3rd, 4th, 5th and 6th years, both regular and Module II were sampled from all campuses of the University of Nairobi. An estimated 80,000 students have been reached through the different intervention activities over the years. Sufficient sized cohorts by year were sampled to independently assess the maturation effect. In addition, ABC project staff and other key stakeholders were sampled.

3.4 Study sample

3.4.1 Sampling procedures

The study site, University of Nairobi, was purposively selected because it is where the ABC program has been implemented since 2004. Sampling procedures took into account the total student population stratified by two categories: regular and Module II students. Lists from the halls of residence (for regular students) and the UON administrative office (for the Module II students) were used. Random sampling of the halls and the Module II registers was conducted and random samples drawn. A list with students' names, registration numbers, and year of study among other details was obtained from the Students Welfare Association (SWA) and the Module II Coordinator. The team sampled a higher number of students (15% more) than was expected to participate in the survey in order to cover for those who were not located or who declined to be interviewed. Specific classes/years of study were selected randomly to ensure representation of all years of study. There was no replacement of sampled students who declined to participate in the study since oversampling took care of this. ABC project staff and other key informants were purposively selected.

3.5 Eligibility

All staff members of the ABC project were eligible for inclusion while specific inclusion criteria for students included:

- Willingness to participate in the study
- Undergraduate student who has completed first year of study
- Presently enrolled at any of the UoN campuses
- Resident in one of the UON halls of residence (regular students) or attends evening classes (Module II students)
- Aged between 18 and 25 years

Specific exclusion criteria included being a first year student; they had not yet had the opportunity to participate in any UON ABC activities.

3.6 Data collection

The data collection instruments were a structured survey questionnaire and in-depth interview and focus group discussion (FGD) guides. The survey focused on students while the in-depth interviews were used to obtain information from project staff, university administrative staff and a selected number of students. Further, focus group discussions (FGD) were conducted with peer educators and peer educator supervisors working in the ABC project.

3.7 Data entry

The survey data was entered by trained staff using the EpiInfo data entry package. Ten percent of the questionnaires were double entered to check for accuracy and any discrepancies noted were resolved by reviewing the original questionnaire(s). Verbatim responses to IDI and FGD questions were transcribed using a standardized transcription protocol.

3.8 Data analysis

SPSS software was used to analyze the data. A descriptive summary of participant characteristics are presented by type of student (Regular or Module II). Weighted percentages and weighted means are presented as appropriate to adjust for variance within the data especially the participant socio-demographics and to ensure representation of the student population at the University of Nairobi. The weighted data also assist in generalizing the study findings to the entire student body and minimize bias particularly in instances where some groups are under-represented or over-represented in the sample. Frequencies are presented unweighted to provide the actual sample size available for each analysis.

Descriptive tables of the factors explored in this analysis were presented by gender and type of student (Regular or Module II). Weighted percentages and unweighted frequencies were presented. Further, a score was created to measure HIV and RH knowledge (separately) and attitudes towards selected RH issues. A point was added to the score if the student's answer was consistent with the program's messages and the points were summed up to indicate if the attitude was favorable or not.

3.9 Ethical considerations

3.9.1 Ethical Review

The protocol was reviewed and approved by the KEMRI National Ethical Review Committee, and the Protection of Human Subjects Committee at Family Health International.

3.9.2 Informed Consent

Research assistants who administered the data collection tools obtained written informed consent from the interviewees in a private area for each individual interview prior to enrolment. Informed consent for the focus group discussions was sought from each participant in the group participating in the discussions. All participants were offered a copy of the informed consent form.

4 RESULTS

This report presents only the findings from the survey of students. The findings are organized into three broad themes: reproductive health knowledge and attitudes including knowledge of and attitude on abstinence, being faithful and condom use (ABC), STI/HIV transmission and prevention; sexual relations and practices focusing on sexual activity, abstinence, number of sexual partners, condom use, contraception, HIV testing and risk perception; and exposure to the 'ABC' intervention including RH/HIV messaging, contact with peer educators and influence of messages shared.

4.1 Demographic characteristics

In total 1262 students participated in the survey. Select socio-demographic characteristics are presented in table 1.1, stratified by type of student (Regular or Module II) and gender. The mean age of the students who participated in the survey is 23 years with a standard deviation (SD) of 1.8. Seventy percent were male and 30% were female; 95% were single with minimal variation between male and female students. Most of the students interviewed were in their second, third and fourth years of study and almost 90% were residing in the university halls of residence. However, slightly more males (91%) than females (84%) resided on campus; slightly more students grew up in rural settings (52%) though more females (58%) reported growing up in urban areas as did over 70% of Module II students.

4.2 Reproductive Health Knowledge and Attitudes

4.2.1 Knowledge of Abstinence, Being faithful, and Condom Use

A major aspect of activities of ICL at the university is educating students on the ABC approach to HIV prevention as well as prevention of unintended pregnancies. The students were asked to give their definition of "ABC" and for the most part they gave an accurate definition of these concepts. Many of them gave multiple responses describing each of the three parameters. For "Abstinence", 49% of the students defined it as not having sex at all or saying 'no' to sex or doing away with sex; 22% indicated that it is the act of avoiding sex till marriage or waiting until marriage to have sex; 8% defined it as avoiding sex for a certain specified time or staying away from sex for a time (until one feels like it or until the right time) (data not shown). Other responses included refraining from any sexual behavior or intercourse, vaginal, oral or anal sex (5%) and not engaging in penetrative sex (2%).

As was the case with abstinence, most of the students correctly defined "Being faithful". Their definitions included having only one sexual partner or having sex with only one partner (60%), being devoted or committed to someone or sticking to one partner, being loyal and not cheating or being attached to one partner in a relationship (11%); being true to your partner or one partner and trusting him or her and being trustworthy (4%); having one sexual partner at a particular time of life or as long as the relationship lasts (3%) and sticking to only one partner in marriage, the legal wife or husband (2%) (data not shown). There were two major responses for consistent condom use: use a condom every time you have sex, that is, always (78%) and using a condom more regularly or always (2%).

4.2.2 Attitudes towards Abstinence, Being faithful, and Condom Use

Though most of the respondents gave answers that indicated that they understood the 'ABC' approach, a few responses indicated views that were not entirely positive while other responses had religious inclinations. They included statements like: there is nothing like abstinence; depending on circumstances and the feelings that come with it; and murder of sperms; using condoms all the time for married people, not for the unmarried; consistent immorality, and upholding kingdom values, being faithful to your creator, ideals and morals.

4.2.3 STI/HIV knowledge and attitudes

As mentioned above, the ABC project has over a period of about four years been educating university students on prevention of STI/HIV and unintended pregnancy through activities such as peer education training, messaging, and behavior change communication. In order to determine their knowledge on RH/STI/HIV, the students were asked to state the diseases that men and women get through sex (STIs). They were also asked to state how one can personally avoid STIs. Table 1.2 presents HIV and RH knowledge scores computed from correct responses to 16 questions on STIs and 9 questions on ways of avoiding STIs (Appendix 1). Less than 10% had a score of 13 and below out of 16 correct responses while the majority scored 14 and above (90%). On knowledge on how to avoid STIs, over 88% gave seven or more correct answers out of a possible score of 9.

It was surprising that 11% and 12% of the respondents did not identify genital warts and herpes respectively as being sexually transmitted (table 1.2.1). More surprising was that 45% of the students did not identify Chlamydia as STI. Another unexpected finding was on their responses on ways of personally avoiding STIs: 55% did not think limiting the number of sexual partners was one way while 37% did not think disclosing HIV status to one's partner could assist one to avoid STIs.

4.2.4 STI/HIV transmission and prevention

Though some of the findings above were surprising, knowledge on HIV transmission was almost universal (98%) (data not shown). Respondents reported on various ways of preventing transmission/acquisition of HIV including abstaining from sexual activity (97%), being faithful to one partner (95%), consistently using condoms with each partner (87%), disclosing one's HIV status to the partner (63%), and limiting number of sex partners (45%).

4.2.5 Reproductive health attitudes

The respondents were asked to give their perspectives on a number of statements focusing on the 'ABC' approach by indicating "agree" or "disagree" with selected statements (*see responses below*):

Statement	Agree (%)	Disagree (%)
Without sex a romantic relationship has no meaning	28.6	70.6
Waiting for marriage to have sex is ok with me	62.2	36.7
I feel I can be faithful to one partner only after marriage	26.4	70.5
It is possible to be faithful to one partner/boyfriend/girlfriend	90.7	7.8
Using a condom means that I care about myself and my partner	85.3	3.6
I use condoms with every partner	44.3	17.6

The students' responses were computed into a RH attitude score as shown in table 1.3. More than half of the respondents (56%) had a score of 8 and above out of a possible 11. The students seem to favor the practice of abstinence. Only 29% agreed with the statement that "without sex, a romantic relationship has no meaning" and 62% agreed that "waiting for marriage to have sex is ok with me" (data not shown). On the issue of being faithful, 71% disagreed with the statement "I feel I can be faithful to one partner only after marriage" and 91% agreed with the statement that "it is possible for me to be faithful to one partner/boyfriend/girlfriend". Responses related to condom use revealed differing views/perspectives. While 85% reported that using a condom is an indication of care for self and partner, only 44% reported using condoms with every partner.

4.3 Sexual practices and relations

4.3.1 Ever had sex

Out of 1198 students who provided information, over 70% reported that they had ever had sex while 20% had not. There was a marked difference between males (79%) and females (53%) and a slight difference between regular (72%) and module II (67%) students (table 1.4). More female (38%) and Module II students (28%) were more likely not to have ever had sex.

4.3.2 Partner HIV testing

Of the 702 students who responded, 59% reported that their partners had ever taken a test to determine their HIV status, and 58% said they discussed their HIV test results with their partners with more females (66%) than the males (56%) reporting partner testing.. More female (66%) and Module II students (59%) reported doing so (table 1.4).

4.3.3 Sexual partners

More than a fifth (22%) had no sex partner in the three months preceding the interview and more than a quarter (27%) had only one partner. Slightly more male (24%) and regular (22%) students had no partner within that period.

4.3.4 Condom use

The students were also asked to report on their own condom use practice in the three months preceding the interview. Of the 671 students who answered the question, 43% reported using condoms all the time, 36% sometimes and 8% reported not using condoms at all. More regular students (44%) reported using condoms all the time compared to Module II students (36%).

4.3.5 Multiple sexual relations

Twenty-one per cent of 671 students confirmed that they were engaged in current multiple sexual relationships. Not surprising, more males (26%) than women (5%) reported having current multiple sexual relationships.

4.3.6 Number of lifetime sexual partners

The mean number of lifetime sex partners was 5 with a standard deviation of 9. A difference was noted between male and female students. While the mean number of sex partners ever had was 6.2 (SD: 10) for male students, it was 2.7 (SD: 2.9) for female students. Likewise, regular students had a slightly higher mean number of lifetime sexual partners, 5.4 (SD: 9.7) compared to Module II students, 4.9 (SD: 6).

4.3.7 Sexual debut

The mean age at first sexual intercourse was 17 years with a standard deviation of 3.8. While there was no difference between regular and Module II students, there was a marked difference between males (16.5 with a standard deviation of 3.8) and females (19.5 and a standard deviation of 2.5).

4.3.8 Discussions on contraception

On average, 68% had ever discussed contraceptive methods with sexual partners, with some gender differential: males, 64% and females, 78%. While 66% of female students said they were very comfortable discussing contraception with partners, only 50% of the males reported the same.

4.3.9 Current contraceptive use

Out of 710 male respondents, 70% report current use of pregnancy prevention methods compared to their female counterparts (59% of 235). Similarly, more Module II students (72%) reported current use of contraception compared to the regular students (67%). The methods reported to be used most included condoms (88%), emergency contraception (25%), withdrawal (22%), standard days (17%) and oral pills (16%). Males reported almost universal use of condoms (91%) compared to females (79%) but there was minimal variation in the use of female-controlled methods such as pills (regular and emergency).

4.3.10 Reported HIV testing (self)

While there were no marked differences between males and females in terms of those who had ever had a blood test to check their HIV status, there was a notable difference between regular (78%) and Module II (69%) students. The proportion dropped to 45% for those who had taken a test in the three months preceding the survey (table 1.5).

4.3.11 Risk perception

Asked about their chance of contracting HIV, 31% said none, 47% said there was a small chance while 12% felt there was a moderate chance. While 41% of the students reported consuming alcohol, 53% reported that they were not using any substance.

4.3.12 Abstinence

On the decision to abstain from sex in the past year, 52% reported they had, with some difference between males (50%) and females (57%). While 37% and 28% respectively of all respondents said they were very likely and likely to abstain from sex in the next three months, 30% said they were not likely to abstain. Almost half (49%) of the female students and 32% of the males were very likely to abstain. A lower proportion of female students (23%) said they were not likely to abstain.

4.3.13 Future intentions

Condom use for STI prevention

Of the 856 students interviewed who were sexually active, 63% said they were very likely to use a condom for STI prevention in the next three months, with higher proportions of the male students (65%) than the females (55%) reporting this. Slightly more Module II students (66%) than regular students (62%) reported that they were very likely to use condoms to prevent STIs in the next three months.

Condom use for pregnancy prevention

More males (64%) of the sexually active students (856) reported that they were likely or very likely to use a method to prevent pregnancy compared to the females (17%). While 70% of the regular students were likely or very likely to use a method to prevent pregnancy, only 11% of Module II students were likely or very likely to use condoms to prevent pregnancy in the next three months.

4.4 Exposure to the intervention

4.4.1 RH/HIV messaging

Over 90% of the students had heard of ICL but the proportion of Module II students was low (71%). On whether they had received any information on HIV since they joined the university, 63% said they had but a lower rate, 41% was reported by Module II students. Further lower rates were reported on whether they had received information from ICL on pregnancy prevention: all students, 38% and Module II, 28% (table 1.6).

4.4.2 Influence of messages

Students were asked how much the information they received during events organized by ICL influenced their behavior. About 41% reported moderate to high influence and

described ways in which the messages received during the events affected their behavior. Most of them (75%) said the information received encouraged faithfulness to one partner with 41% deciding to start to be faithful to one partner; 59% took a HIV test as a result while 52% decided to use condoms consistently and correctly. While 39% mentioned continuing to abstain, 25% said the messages encouraged them to start abstaining. It is worthy noting that almost 10% reported no change in behavior.

4.4.3 Contact with peer educator

The ABC project utilizes the peer education approach to reach students on campus with RH information especially during thematic events and BCC group meetings. Though the intervention has been going on since 2004, only 34% reported having met a peer educator to discuss STIs/HIV/pregnancy prevention. Slightly more females (39%) reported contact with peer educators (table 1.7). It is, however, encouraging to note that out of those who reported contact with peer educators, 89% had been involved in BCCGs to discuss STIs/HIV/pregnancy prevention.

5 DISCUSSION

The universal knowledge of HIV and favorable attitude towards the ABC approach and pregnancy prevention noted from the findings are not matched by the reports respondents gave on personal practices. Multiple sexual relations were noted as was lack of intention to use condoms to prevent both STI/HIV and pregnancy or to abstain from sexual activity. However, the high proportion of students who indicated that it is possible to be faithful to one partner is encouraging. Further, the fact that many respondents reported not having sexual partners during the three months preceding the survey presents an opportunity that can be utilized to assist the students to change their practices. Secondary abstinence seems to be an option. In addition, the fact that 20% of the students had never had sex provides an opportunity for the intervention to target them directly with messages/programs to help them to uphold this choice as well as provide guidance on safe sex for those who choose to become sexually active afterwards.

Anecdotal information from students and health workers within the university has indicated that there is substantial use of emergency contraception (EC) among students. The findings confirmed this: 25% of contraceptive users were using EC compared to 15% using regular pills. It is encouraging to note that substantial proportions of students reported use of condoms. There may be a reliance on condoms combined with EC (that is, dual method use) and that is a positive practice. Another method used by a fifth of the students is withdrawal which is not easy to practice.

Another surprising report was that more females said they were not likely to use a method to prevent pregnancy. In fact, more males than females reported current use of pregnancy prevention methods. This could be most likely due to the use of condoms which was reported to be the most commonly used method. This could be attributed to emphasis on condom use in the latter part of the ABC project. A good proportion of students reported sexual activity and non use and no intention to use methods to prevent STI/HIV and unintended pregnancies. Further, 59% felt that they had at least a small risk

of contracting HIV with about 15% feeling that their risk was moderate to high. This perceived risk of contracting HIV and the students' reports that they were not likely to abstain are indicators of susceptibility to infection.

The proportion of Module II students who had heard about ICL was low and this could be explained by the fact that the ABC project did not involve them in the initial phases. Again, the lower reports on whether students had received information on pregnancy prevention from ICL could be related to the initial emphasis the project had on HIV. The project has now incorporated pregnancy prevention information/messages into its activities.

It is worthy noting that project activities have encouraged students to take up HIV testing which is an important step in prevention efforts. The 25% who reported starting to abstain as a result of supporting and encouraging messages can be effective advocates.

The findings indicate low level contact between students and peer educators and this is not favorable since BCC group meetings and RH-HIV messaging are major components of the ABC project.

6 RECOMMENDATIONS

1. The results show that most students were sexually active before they joined the university (sexual debut: 17 years). There is need to target young people earlier with STI/HIV and RH messages.
2. Students should be advised on and encouraged to adopt more effective contraceptive methods.
3. Since students reported sexual activity but non use of methods to prevent STI/HIV and unintended pregnancies, the ABC project needs to redouble effort to positively influence students' behavior.
4. Students should be continuously sensitized on personal risk reduction options.
5. Since anything less than condom use "all the time" is not good enough, the project should continue to emphasize on the need for consistent protection against STI/HIV and pregnancy.
6. The project should establish the factors associated with the minimal contact between the peer educators and the other students.

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LIST OF TABLES

Table 1.1 Participant Demographics

	Type of Student		Gender		Total (N = 1262) N (%)
	Regular (N = 1071) N (%)	Module II (N = 191) N (%)	Male (N = 884) N (%)	Female (N = 378) N (%)	
Age¹					
Mean (std)	22.8 (1.7)	21.9 (2.1)	22.9 (1.7)	22.2 (1.9)	22.7 (1.8)
Gender					
Male	772 (72.1)	112 (58.6)	-	-	884 (70.05)
Female	299 (27.9)	79 (41.4)	-	-	378 (29.95)
Marital status					
Single	1023 (95.5)	174 (91.1)	841 (95.1)	356 (94.2)	1197 (94.85)
Married	15 (1.4)	6 (3.1)	12 (1.4)	9 (2.4)	21 (1.66)
Cohabiting	32 (3)	10 (5.2)	29 (3.3)	13 (3.4)	42 (3.33)
Widowed	0 (0.00)	1 (0.5)	1 (0.1)	0 (0.00)	1 (0.08)
Divorced/Separated	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Prefer not to answer	1 (0.1)	0 (0.00)	1 (0.1)	0 (0.00)	1 (0.08)
Year of study					
Second year	301 (28.1)	104 (54.5)	272 (30.8)	133 (35.2)	405 (32.09)
Third year	249 (23.2)	62 (32.5)	229 (25.9)	82 (21.7)	311 (24.64)
Fourth year	374 (34.9)	24 (12.6)	268 (30.3)	130 (34.4)	398 (31.54)
Fifth year	123 (11.5)	1 (0.5)	92 (10.4)	32 (8.5)	124 (9.83)
Sixth year	22 (2.1)	0 (0.00)	22 (2.5)	0 (0.00)	22 (1.74)
Other	2 (0.2)	0 (0.00)	1 (0.1)	1 (0.3)	2 (0.16)
Current residence					
University halls of residence	1050 (98)	74 (38.7)	805 (91.1)	319 (84.4)	1124 (89.06)
Rented hostel/house out of campus	13 (1.2)	59 (30.9)	40 (4.5)	32 (8.5)	72 (5.71)
With parents	8 (0.7)	57 (29.8)	39 (4.4)	26 (6.9)	65 (5.15)
Other	0 (0.00)	1 (0.5)	0 (0.00)	1 (0.3)	1 (0.08)
Place to grow up					
Rural	600 (56)	52 (27.2)	493 (55.8)	159 (42.1)	652 (51.66)
Urban	470 (43.9)	138 (72.3)	390 (44.1)	218 (57.7)	608 (48.18)
Prefer not to answer	1 (0.1)	1 (0.5)	1 (0.1)	1 (0.3)	2 (0.16)

¹ There were 89 participants with missing age

Table 1.2 HIV and RH knowledge

	Type of Student		Gender		Total (N = 1262) N (%)
	Regular (N = 1071) N (%)	Module II (N = 191) N (%)	Male (N = 884) N (%)	Female (N = 378) N (%)	
HIV and RH knowledge score about STI diseases^{1,3}					
≤12	41 (3.8)	9 (4.7)	32 (3.6)	18 (4.8)	50 (4)
13	58 (5.4)	8 (4.2)	51 (5.8)	15 (4)	66 (5.2)
14	163 (15.2)	37 (19.4)	140 (15.8)	60 (15.9)	200 (15.8)
15	422 (39.4)	85 (44.5)	365 (41.3)	142 (37.6)	507 (40.2)
16	386 (36)	51 (26.7)	294 (33.3)	143 (37.8)	437 (34.6)
HIV and RH knowledge score about avoiding STIs²					
≤4	4 (0.4)	2 (1)	6 (0.7)	0 (0.0)	6 (0.5)
5	25 (2.3)	5 (2.6)	23 (2.6)	7 (1.9)	30 (2.4)
6	94 (8.8)	17 (8.9)	76 (8.6)	35 (9.3)	111 (8.8)
7	313 (29.2)	42 (22)	264 (29.9)	91 (24.1)	355 (28.1)
8	378 (35.3)	70 (36.6)	304 (34.4)	144 (38.1)	448 (35.5)
9	257 (24)	55 (28.8)	211 (23.9)	101 (26.7)	312 (24.7)

Table 1.2.1 Knowledge of sexually transmitted infections (STIs)

STI	N = 1262 (%)
Syphilis	1251 (99.1)
HIV/AIDS	1236 (97.9)
Gonorrhea	1245 (98.7)
Chlamydia	689 (54.6)
Herpes	1110 (88.0)
Genital warts	1120 (88.7)

Table 1.3 RH attitude score

	Type of Student		Gender		Total (N = 1167) N (%)
	Regular (N = 987) N (%)	Module II (N = 180) N (%)	Male (N = 824) N (%)	Female (N = 343) N (%)	
RH attitudes Score^{1,2}					
≤3	30 (2.8)	5 (2.62)	31 (3.51)	4 (1.06)	35 (2.77)
4	43 (4.01)	9 (4.71)	42 (4.75)	10 (2.65)	52 (4.12)
5	83 (7.75)	12 (6.28)	72 (8.14)	23 (6.08)	95 (7.53)
6	95 (8.87)	18 (9.42)	86 (9.73)	27 (7.14)	113 (8.95)
7	133 (12.42)	31 (16.23)	120 (13.57)	44 (11.64)	164 (13)
8	155 (14.47)	26 (13.61)	127 (14.37)	54 (14.29)	181 (14.34)
9	191 (17.83)	23 (12.04)	151 (17.08)	63 (16.67)	214 (16.96)
10	164 (15.31)	29 (15.18)	125 (14.14)	68 (17.99)	193 (15.29)
11	93 (8.68)	27 (14.14)	70 (7.92)	50 (13.23)	120 (9.51)

¹ A score was created to measure overall RH attitudes using Q205-Q215 and a score is the number of correct answers among 11 questions.

² The 95 participants who have at least one of question not responded to are excluded

Table 1.4 Sexual relations and practices

	Type of Student		Gender		Total N (%)
	Regular N (%)	Module II N (%)	Male N (%)	Female N (%)	
Ever had sex¹	(N = 1024)	(N = 174)	(N = 842)	(N = 356)	(N = 1198)
Yes	740 (72.3)	116 (66.7)	668 (79.3)	188 (52.8)	856 (71.45)
No	203 (19.8)	40 (23)	124 (14.7)	119 (33.4)	243 (20.28)
Prefer not to answer	81 (7.9)	18 (10.3)	50 (5.9)	49 (13.8)	99 (8.26)
The partner has had a test to determine the HIV status²	(N = 592)	(N = 110)	(N = 478)	(N = 224)	(N = 702)
Yes	354 (59.8)	62 (56.4)	268 (56.1)	148 (66.1)	416 (59.26)
No	75 (12.7)	20 (18.2)	75 (15.7)	20 (8.9)	95 (13.53)
Don't know	144 (24.3)	26 (23.6)	125 (26.2)	45 (20.1)	170 (24.22)
Prefer not to answer	19 (3.2)	2 (1.8)	10 (2.1)	11 (4.9)	21 (2.99)
Discussed HIV test results with each other²	(N = 592)	(N = 110)	(N = 478)	(N = 224)	(N = 702)
Yes	348 (58.8)	60 (54.5)	260 (54.4)	148 (66.1)	408 (58.12)
No	131 (22.1)	23 (20.9)	120 (25.1)	34 (15.2)	154 (21.94)
Not tested	92 (15.5)	25 (22.7)	85 (17.8)	32 (14.3)	117 (16.67)
Prefer not to answer	21 (3.5)	2 (1.8)	13 (2.7)	10 (4.5)	23 (3.28)
Number of sexual partner in the last 3 months	(N = 1071)	(N = 191)	(N = 884)	(N = 378)	(N = 1262)
0	236 (22)	38 (19.9)	208 (23.5)	66 (17.5)	274 (21.71)
1	293 (27.4)	49 (25.7)	236 (26.7)	106 (28)	342 (27.1)
2	79 (7.4)	9 (4.7)	73 (8.3)	15 (4)	88 (6.97)
3	31 (2.9)	6 (3.1)	35 (4)	2 (0.5)	37 (2.93)
4	19 (1.8)	7 (3.7)	24 (2.7)	2 (0.5)	26 (2.06)
5	6 (0.6)	1 (0.5)	7 (0.8)	0 (0.0)	7 (0.55)
6	10 (0.9)	0 (0.0)	9 (1)	1 (0.3)	10 (0.79)
7	3 (0.3)	0 (0.0)	2 (0.2)	1 (0.3)	3 (0.24)
8	2 (0.2)	1 (0.5)	3 (0.3)	0 (0.0)	3 (0.24)
>=9	10 (0.9)	2 (1)	10 (1.1)	2 (0.5)	12 (0.95)
Never had sex	263 (24.6)	54 (28.3)	174 (19.7)	143 (37.8)	317 (25.12)
Prefer not to answer	119 (11.1)	24 (12.6)	103 (11.7)	40 (10.6)	143 (11.33)
Used condoms during sex in the last 3 months³	(N = 572)	(N = 99)	(N = 502)	(N = 169)	(N = 671)
All of the time	253 (44.2)	36 (36.4)	230 (45.8)	59 (34.9)	289 (43.07)
Sometimes	202 (35.3)	39 (39.4)	184 (36.7)	57 (33.7)	241 (35.92)
Never	44 (7.7)	10 (10.1)	33 (6.6)	21 (12.4)	54 (8.05)
Prefer not to answer	73 (12.8)	14 (14.1)	55 (11)	32 (18.9)	87 (12.97)

¹ The participants whose marital status are single or undetermined

² The participants who do not have a steady relationship currently are excluded

³ The participants who did not have sex in the last 3 months are excluded

Table 1.4 Sexual relations and practices (continued)

	Type of Student		Gender		Total N (%)
	Regular N (%)	Module II N (%)	Male N (%)	Female N (%)	
Currently have multiple sexual relationships³	(N = 572)	(N = 99)	(N = 502)	(N = 169)	(N = 671)
Yes	121 (21.2)	19 (19.2)	131 (26.1)	9 (5.3)	140 (20.86)
No	392 (68.5)	66 (66.7)	315 (62.7)	143 (84.6)	458 (68.26)
Prefer not to answer	59 (10.3)	14 (14.1)	56 (11.2)	17 (10.1)	73 (10.88)
Number of sexual partners ever had⁴	(N = 508)	(N = 83)	(N = 439)	(N = 152)	(N = 591)
Mean ² (std)	5.4 (9.7)	4.9 (6.0)	6.2 (10)	2.7 (2.9)	5.3 (9.3)
Age at first sex⁴	(N = 604)	(N = 102)	(N = 540)	(N = 166)	(N = 706)
Mean ² (std)	17.1 (3.9)	17.4 (3.3)	16.5 (3.8)	19.5 (2.5)	17.2 (3.8)
Ever discussed contraceptive methods with sexual partners⁴	(N = 808)	(N = 137)	(N = 710)	(N = 235)	(N = 945)
Yes	549 (67.9)	89 (65)	454 (63.9)	184 (78.3)	638 (67.51)
No	240 (29.7)	41 (29.9)	239 (33.7)	42 (17.9)	281 (29.74)
Prefer not to answer	19 (2.4)	7 (5.1)	17 (2.4)	9 (3.8)	26 (2.75)
How comfortable to discuss contraception with sexual partners⁴	(N = 808)	(N = 137)	(N = 710)	(N = 235)	(N = 945)
Very comfortable	429 (53.1)	79 (57.7)	354 (49.9)	154 (65.5)	508 (53.76)
Comfortable	268 (33.2)	39 (28.5)	249 (35.1)	58 (24.7)	307 (32.49)
Uncomfortable	56 (6.9)	10 (7.3)	58 (8.2)	8 (3.4)	66 (6.98)
Very uncomfortable	36 (4.5)	6 (4.4)	34 (4.8)	8 (3.4)	42 (4.44)
Prefer not to answer	19 (2.4)	3 (2.2)	15 (2.1)	7 (3)	22 (2.33)
Currently using methods to protect you/partners from pregnancy⁴	(N = 808)	(N = 137)	(N = 710)	(N = 235)	(N = 945)
Yes	539 (66.7)	98 (71.5)	499 (70.3)	138 (58.7)	637 (67.41)
No	85 (10.5)	22 (16.1)	62 (8.7)	45 (19.1)	107 (11.32)
Don't know	8 (1)	1 (0.7)	6 (0.8)	3 (1.3)	9 (0.95)
No current sexual partner	166 (20.5)	15 (10.9)	134 (18.9)	47 (20)	181 (19.15)
Prefer not to answer	10 (1.2)	1 (0.7)	9 (1.3)	2 (0.9)	11 (1.16)
Methods of currently using^{4,5}	(N = 541)	(N = 97)	(N = 500)	(N = 138)	(N = 638)
Condoms	478 (88.4)	86 (88.7)	455 (91)	109 (79)	564 (88.4)
Pills	82 (15.2)	18 (18.6)	78 (15.6)	22 (15.9)	100 (15.67)
Emergency Contraception	133 (24.6)	27 (27.8)	121 (24.2)	39 (28.3)	160 (25.08)
Depo/Injection	15 (2.8)	0 (0.0)	12 (2.4)	3 (2.2)	15 (2.35)
IUCD/Coil	5 (0.9)	0 (0.0)	3 (0.6)	2 (1.4)	5 (0.78)
Implant	7 (1.3)	2 (2.1)	4 (0.8)	5 (3.6)	9 (1.41)
Standard Days/Rhythm/Beads	95 (17.6)	15 (15.5)	84 (16.8)	26 (18.8)	110 (17.24)
Withdrawal	114 (21.1)	29 (29.9)	110 (22)	33 (23.9)	143 (22.41)
Others	8 (1.5)	1 (1)	7 (1.4)	2 (1.4)	9 (1.41)

³ The participants who did not have sex in the last 3 months are excluded

⁴ The participants who have never had sex are excluded

Multiple answers are possible

Table 1.5 HIV, STIs, and Future Behavior

	Type of Student		Gender		Total (N = 1262) N (%)
	Regular (N = 1071) N (%)	Module II (N = 191) N (%)	Male (N = 884) N (%)	Female (N = 378) N (%)	
Ever had a blood test to check HIV status					
Yes	840 (78.4)	132 (69.1)	675 (76.4)	297 (78.6)	972 (77)
No	217 (20.3)	58 (30.4)	199 (22.5)	76 (20.1)	275 (21.8)
Prefer not to answer	14 (1.3)	1 (0.5)	10 (1.1)	5 (1.3)	15 (1.2)
Had a blood test to see HIV status in the last 3 months²					
Yes	389 (45.6)	58 (43.6)	306 (44.7)	141 (46.7)	447 (45.3)
No	446 (52.2)	75 (56.4)	365 (53.3)	156 (51.7)	521 (52.8)
Prefer not to answer	19 (2.2)	0 (0.00)	14 (2)	5 (1.7)	19 (1.9)
Chance to get HIV					
None	325 (30.3)	65 (34)	266 (30.1)	124 (32.8)	390 (30.9)
Small	499 (46.6)	92 (48.2)	421 (47.6)	170 (45)	591 (46.8)
Moderate	132 (12.3)	16 (8.4)	112 (12.7)	36 (9.5)	148 (11.7)
High	32 (3)	6 (3.1)	31 (3.5)	7 (1.9)	38 (3)
Prefer not to answer	83 (7.7)	12 (6.3)	54 (6.1)	41 (10.8)	95 (7.5)
Substance components¹					
None	607 (56.7)	82 (42.9)	442 (50)	247 (65.3)	689 (54.6)
Alcohol	418 (39)	103 (53.9)	404 (45.7)	117 (31)	521 (41.3)
Marijuana	60 (5.6)	12 (6.3)	64 (7.2)	8 (2.1)	72 (5.7)
Miraa/Khat	81 (7.6)	15 (7.9)	90 (10.2)	6 (1.6)	96 (7.6)
Kuber	14 (1.3)	4 (2.1)	15 (1.7)	3 (0.8)	18 (1.4)
Other	5 (0.5)	2 (1)	7 (0.8)	0 (0.00)	7 (0.6)
Decided to abstain from sex in the past year					
Yes	556 (51.9)	99 (51.8)	441 (49.9)	214 (56.6)	655 (51.9)
No	332 (31)	57 (29.8)	325 (36.8)	64 (16.9)	389 (30.8)
Never had sex	119 (11.1)	22 (11.5)	72 (8.1)	69 (18.3)	141 (11.2)
Prefer not to answer	64 (6)	13 (6.8)	46 (5.2)	31 (8.2)	77 (6.1)
Likely to abstain from having sex in the next 3 months					
Not likely	319 (29.8)	64 (33.5)	297 (33.6)	86 (22.8)	383 (30.3)
Likely	306 (28.6)	47 (24.6)	270 (30.5)	83 (22)	353 (28)
Very likely	393 (36.7)	72 (37.7)	280 (31.7)	185 (48.9)	465 (36.8)
Prefer not to answer	53 (4.9)	8 (4.2)	37 (4.2)	24 (6.3)	61 (4.8)

¹ Multiple answers are possible

² Participants who have never had a blood test to check HIV status are excluded

Table 1.5 HIV, STDs, and Future Behavior (continued)

	Type of Student		Gender		Total (N = 856) N (%)
	Regular (N = 740) N (%)	Module II (N = 116) N (%)	Male (N = 668) N (%)	Female (N = 188) N (%)	
Likely to use condom not to get an STI in the next 3 months					
Not likely	76 (10.3)	9 (7.8)	57 (8.5)	28 (14.9)	85 (9.9)
Likely	166 (22.4)	24 (20.7)	145 (21.7)	45 (24)	190 (22.2)
Very likely	460 (62.1)	77 (66.4)	434 (65)	103 (54.8)	537 (62.7)
Prefer not to answer	38 (5.1)	6 (5.2)	32 (4.8)	12 (6.4)	44 (5.1)
Likely to use a method to prevent pregnancy in the next 3 months					
Not likely	88 (11.9)	9 (7.8)	68 (10.2)	29 (15.4)	97 (11.3)
Likely	164 (22.2)	18 (15.5)	142 (21.3)	40 (21.3)	182 (21.3)
Very likely	438 (59.2)	77 (66.4)	408 (61.1)	107 (57)	515 (60.2)
Prefer not to answer	50 (6.8)	12 (10.3)	50 (7.5)	12 (6.4)	62 (7.2)

¹ Multiple answers are possible

² Participants who have never had a blood test to check HIV status are excluded

Table 1.6 | Choose Life Organization

	Type of Student		Gender		Total (N = 1262) N (%)
	Regular (N = 1071) N (%)	Module II (N = 191) N (%)	Male (N = 884) N (%)	Female (N = 378) N (%)	
Ever heard of ICL					
Yes	1009 (94.2)	135 (70.7)	802 (90.7)	342 (90.5)	1144 (90.6)
No	60 (5.6)	54 (28.3)	80 (9)	34 (9)	114 (9)
Prefer not to answer	2 (0.2)	2 (1)	2 (0.2)	2 (0.5)	4 (0.3)
Have received any information on HIV by ICL since came to the university					
Yes	715 (66.8)	79 (41.4)	562 (63.6)	232 (61.4)	794 (62.9)
No	325 (30.3)	100 (52.4)	292 (33)	133 (35.2)	425 (33.7)
Don't know	29 (2.7)	11 (5.8)	28 (3.2)	12 (3.2)	40 (3.2)
Prefer not to answer	2 (0.2)	1 (0.5)	2 (0.2)	1 (0.3)	3 (0.2)
Have received any information on pregnancy prevention by ICL since came to the university					
Yes	422 (39.4)	53 (27.7)	333 (37.7)	142 (37.6)	475 (37.6)
No	586 (54.7)	123 (64.4)	488 (55.2)	221 (58.5)	709 (56.2)
Don't know	53 (4.9)	12 (6.3)	51 (5.8)	14 (3.7)	65 (5.2)
Prefer not to answer	10 (0.9)	3 (1.6)	12 (1.4)	1 (0.3)	13 (1)
How much influence received during these events have had on your behavior					
No influence	54 (5)	11 (5.8)	41 (4.6)	24 (6.3)	65 (5.2)
Minimal influence	100 (9.3)	18 (9.4)	85 (9.6)	33 (8.7)	118 (9.4)
Moderate influence	285 (26.6)	34 (17.8)	251 (28.4)	68 (18)	319 (25.3)
High influence	186 (17.4)	17 (8.9)	138 (15.6)	65 (17.2)	203 (16.1)
Never attended any events	439 (41)	111 (58.1)	364 (41.2)	186 (49.2)	550 (43.6)
Prefer not to answer	7 (0.7)	0 (0.00)	5 (0.6)	2 (0.5)	7 (0.6)
Events affected my behavior this way¹					
Continue abstaining from sex	240 (38.3)	32 (40.5)	185 (35.9)	87 (46)	272 (38.6)
Start abstaining	157 (25.1)	21 (26.6)	138 (26.7)	40 (21.2)	178 (25.2)
Encourage faithfulness to 1 partner	458 (73.2)	67 (84.8)	385 (74.6)	140 (74.1)	525 (74.5)
Start to be faithful to 1 partner	244 (39)	47 (59.5)	225 (43.6)	66 (34.9)	291 (41.3)
Reduce the number of partners	270 (43.1)	41 (51.9)	262 (50.8)	49 (25.9)	311 (44.1)
Use condoms consistently/correctly	320 (51.1)	46 (58.2)	300 (58.1)	66 (34.9)	366 (51.9)
Had an HIV test	371 (59.3)	44 (55.7)	304 (58.9)	111 (58.7)	415 (58.9)
No change in behavior	54 (8.6)	10 (12.7)	51 (9.9)	13 (6.9)	64 (9.1)

Table 1.7 Have you ever met a peer educator?

	Type of Student		Gender		Total (N = 981) N (%)
	Regular (N = 844) N (%)	Module II (N = 137) N (%)	Male (N = 685) N (%)	Female (N = 296) N (%)	
Ever met a peer educator to discuss STI/HIV and pregnancy prevention					
Yes	289 (34.2)	43 (31.4)	218 (31.8)	114 (38.5)	332 (33.8)
No	554 (65.6)	93 (67.9)	466 (68)	181 (61.1)	647 (66)
Prefer not to answer	1 (0.1)	1 (0.7)	1 (0.1)	1 (0.3)	2 (0.2)
Ever been involved in BCCG to discuss about STI/HIV/Pregnancy prevention¹					
Yes	257 (88.6)	39 (88.6)	191 (87.2)	105 (91.3)	296 (88.6)
No	33 (11.4)	5 (11.4)	28 (12.8)	10 (8.7)	38 (11.4)

¹ Participants who never met a peer educator to discuss STI/HIV/Pregnancy prevention are excluded

Appendix 1: Scores for Q. 201-215

#	QUESTION	RESPONSE	CODE		
			Yes	No	
201.	<p>There are diseases that men and women can get from sex known as sexually transmitted infections--STIs.</p> <p><i>For diseases that you know are STIs, circle 1(yes, know).</i></p> <p><i>For those you know are not STIs or for those you are unsure of, circle 2(No, don't know).</i></p>				
			Influenza		+1
			Syphilis	+1	
			HIV/AIDs	+1	
			Measles		+1
			Tuberculosis		+1
			Gonorrhea	+1	
			Shingles		+1
			Chlamydia	+1	
			Diphtheria		+1
			Polio		+1
			Yaws		+1
			Herpes	+1	
			Small Pox		+1
			Malaria		+1
Cancer		+1			
Genital Warts		+1			

202.	<p>How can one personally avoid STIs</p> <p><i>For the methods that you know are ways to avoid STIs, circle 1 in the space next to the method.</i></p> <p><i>For those you know are not or are not sure of, circle 2.</i></p>	Being faithful to one partner.....	+1	
		Taking antiretroviral drugs.....		+1
		Only having sex with health looking people.....		+1
		Limiting number of sexual partners...	+1	
		Disclosing HIV status to your partner..	+1	
		Consistently using condoms with each partner.....	+1	
		Abstaining from sex.....	+1	
		Getting married.....		+1
		Reusing needles and syringes.....		+1

A score was created to measure RH attitudes. A point was added to the score if the student's answer is consistent with the program's messages as follow:

#	Statement	Agree	Disagree	N/A
205.	Without sex, a romantic relationship has no meaning.	<input type="checkbox"/>	+1	
206.	Waiting for marriage to have sex is ok with me.	+1	<input type="checkbox"/>	
207.	I can say no to sex with my current partner?	+1	<input type="checkbox"/>	<input type="checkbox"/>
208.	Having sex proves my love to my partner.	<input type="checkbox"/>	+1	
209.	I feel I can be faithful to one partner only after marriage.	<input type="checkbox"/>	+1	
210.	If my partner suggests we use a condom, I would feel that it is because she/he does <u>not</u> trust me.	<input type="checkbox"/>	+1	<input type="checkbox"/>
211.	I do not have to use a condom with my spouse/steady partner because I know he/she is faithful.	<input type="checkbox"/>	+1	<input type="checkbox"/>
212.	I use condoms with every partner.	+1	<input type="checkbox"/>	<input type="checkbox"/>

213.	I can tell my partner 'No sex without a condom.'	+1	<input type="checkbox"/>	<input type="checkbox"/>
214.	Using a condom means that I care about myself and my partner.	+1	<input type="checkbox"/>	<input type="checkbox"/>
215.	It is possible for me to be faithful to one partner/boyfriend/girlfriend.	+1	<input type="checkbox"/>	

