

AN ABSTRACT OF THE THESIS OF

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Title: The Effects of Knowledge and Attitudes about AIDS on Behavior among the Students of Chulalongkorn University.

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Abstract Approved: _____

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This study investigated the effects of knowledge and attitudes about Acquired Immune Deficiency Syndrome (AIDS) on behavior among 293 students of Chulalongkorn University, Faculty of Education, Bangkok, Thailand. The purposes of this study were to : a) assess university students' knowledge and attitudes about AIDS, and their sexual behavior; b) ascertain whether accurate knowledge of AIDS and attitudes towards AIDS are related to sexual behavior; c) determine if sexual behaviors have changed as a result of AIDS awareness; d) determine if these young adults perceive themselves to be at risk for contracting AIDS; e) examine the relationship between demographic and sexual behavioral patterns of this target population; f) determine gender differences in attitudes, knowledge and behavior.

The instrument used in this study was a standardized questionnaire, developed in parts by Gray and Saracino, (1989) and Larsen, (1988). The instrument included a 37-

item true -false knowledge test on the transmission, etiology, epidemiology and prevention of AIDS as well as general information about AIDS and a 20-item Likert -type scale on Attitudes Towards AIDS Victims (ATAV). Data were analyzed using analysis of variance, pearson product moment correlation and chi-square test.

The results from this study indicated that there was no relationship between attitudes, knowledge and risky sexual behavior. There was no significant difference with respect to knowledge score of AIDS between male and female students. However, there was significant difference between male and female students with respect to attitudes toward people with AIDS and communicating with prospective partners. The data revealed that males had a more positive attitude towards people with AIDS than females and females used more effective communication patterns than males. The findings also showed that most students do not perceive themselves as being at risk for AIDS. The study results were reviewed in light of the literature on attitudes and knowledge of AIDS and sexual behavior due to awareness of AIDS among various adolescents and university students. Implications and recommendations for university students as a result of this study were presented.

**The Effects of Knowledge and Attitudes about AIDS on
Behavior among the Students of Chulalongkorn University**

By

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A THESIS

Submitted to

Oregon State University

**In partial fulfillment of
the requirements for the
degree of
Doctor of Education**

Completed August 4, 1993

Commencement June, 1994

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Date dissertation is presented August 4, 1993

Typed by researcher for Tipsiri S. Kanjanawasee

ACKNOWLEDGMENTS

I would like to take this opportunity to thank all the people who contributed to the successful completion of this study.

To my major professor, Dr. Reese House, I express my sincere appreciation and gratitude for the time and energy he devoted to this study. His excellent guidance, encouragement, understanding, patience, helpful suggestions and constructive criticism during the preparation of this dissertation are gratefully acknowledged. Without his assistance, this dissertation would never have been accomplished over the given time frame.

I am also grateful to Dr. Knud Larsen; Dr. David Acker; Dr. Majorie McBride and Dr. Joseph Krause for serving as committee members and for their critical review of the thesis.

Special appreciation is extended to the International Education office at Oregon State University for granting resident tuition status during my school years. I am also most grateful for financial assistance from Chulalongkorn University.

Special mention also goes to the following people: Dr. Wayne Haverson, the director of the School of Education, for his valuable suggestions during my study; Ruth Carter, my best friend, who always gave me love and care while I was in

Corvallis; Sutha and Apiradee Khaodhiar, my cousins, for their computer assistance.

Finally, I am extremely indebted to my late mother, Mrs. Boonnoung Saraya, for giving me the best love and life and supports; my brother, Dr. Somporn Saraya and his wife, Mrs. Arunee Saraya, for their generous support during my graduate study.

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**THE EFFECTS OF KNOWLEDGE AND ATTITUDES ABOUT AIDS ON
BEHAVIOR AMONG THE STUDENTS OF CHULALONGKORN UNIVERSITY**

CHAPTER I

STATEMENT OF THE PROBLEM, SIGNIFICANCE AND HYPOTHESES

Introduction

The rapid spread of the disease Acquired Immunodeficiency Syndrome (AIDS), presents a serious health crisis to the world today. AIDS is a fatal disease that does not discriminate across gender, age or ethnic background. All persons are, to some degree, at risk of contracting AIDS. The major effects of AIDS to the world's population are yet to come as it is predicted that by 1995, an additional 6.9 million people will become infected with Human Immunodeficiency Virus (HIV) (Mann, et al., 1992).

The world-wide epidemic of HIV infection represents an unprecedented and urgent challenge to international public health. A long-term effort and commitment to solving the problem is required on the part of the entire world.

It is clear that AIDS represents a devastating challenge to developing countries. Their scarce resources and emerging political systems, already frighteningly over-

burdened, have limited resources available to deal with existing problems, let alone face the danger of AIDS. The World Health Organization (WHO) officially considers the spread of AIDS to be the greatest threat in the 'sentinel' countries of Asia, like Thailand (especially in Bangkok Metropolis). This is because of drug use, illiteracy, poverty and increases in leisure time spent in bars, cafeterias, and nightclubs. Furthermore, sexual services for a price are available all over Bangkok, from the poorest slums to the Prime Minister's neighborhood and it is estimated that more than 40% of Thai prostitutes are HIV positive (Reaves & Gayle, 1993). Other factors, adding to the threat of AIDS in Thailand, include: sexual promiscuity without the use of condoms, greater mobility of the population, general ignorance about AIDS, the refusal of AIDS patients to name their contacts, and limited education and prevention efforts (Reaves & Gayle, 1993).

The AIDS epidemic in Thailand is silently but steadily moving through the population. In the few short years that the epidemic has been in Thailand, experts estimate that 200,000-400,000 Thais have become HIV positive (WHO/UNESCO, 1992). And if current behaviors do not change, two to four million Thais will become HIV infected by the year 2000. By the year 2000, 650,000 AIDS cases and 56,000 AIDS-related deaths are projected to occur in Thailand (WHO/UNESCO, 1992).

The projected levels of illness and death will create a significant financial burden on families and the government of Thailand. Health care costs for people with AIDS are estimated to be between \$615 and \$1,000 per year (WHO/UNESCO, 1992). Treatment costs for AIDS represent between 30-50% of annual household income for the average Thai family. The inability of families to bear this financial burden will require the government to assume the cost of care.

A far greater cost to the economy will result from the deaths of individuals during their most productive years. AIDS affects young adults when they are most economically productive and also affects women in their childbearing years. The age group at greatest risk for AIDS is young people between the ages of 12 and 30. They are at risk due to high-risk behaviors that cause HIV infection.

The dramatic rise in morbidity and mortality rates associated with HIV infection has created an urgent demand for the development of effective education prevention programs for adolescents and college students identified as sexually active (U.S. Surgeon General, 1986; DiClemente et al, 1990). To be effective in planning AIDS prevention program for young adults, there is a need for research among these groups to identify specific educational needs.

Significance of the Study

In the absence of a vaccine or cure for AIDS, prevention of the life threatening HIV infection can only be accomplished through preventive education. Educational efforts have focused on the dissemination of information regarding the cause of AIDS, routes of transmission, and precautionary measures against the spread of the disease. Educators and counselors have assumed that factual knowledge will affect behavioral change (Gray and Saracino, 1990) which in turn, will limit the spread of the disease.

Adolescents and college and university students are recognized as a major population at risk of HIV infection. Young adults are identified as a risk group for HIV infection because of high risk sexual and drug related behaviors (DiClemente, 1990; McGill, Smith, & Johnson, 1989; Bell & Hein, 1984; Bell & Holmes, 1984; Robin, 1984;) and high rates in sexually transmitted diseases (STD) (O'Reilly & Aral, 1985; Bell & Holmes, 1984;). Studies suggest that adolescents have not adopted self protective sexual practices, such as the use of condoms during sexual intercourse, which would reduce the risk of HIV infection (Knox & Brigman, 1992; Bishop & Lipsitz, 1991; Juran, 1991; Gray & Saracino, 1990; MacDonald et al., 1990; Thurman & Franklin, 1990; Kegeles, Adler, & Irwin, 1988; Strunin & Hingson, 1987).

University students have been recognized as a group at higher risk for HIV and AIDS than the general population (MacDonald et al., 1990; Edgar et al., 1988; McDermott et al., 1987). This greater risk stems from relatively high levels of sexual activity, potential for multiple sex partners, and high-risk sexual behaviors (Brown, 1992; Scollay, 1992; MacDonald et al., 1990; McDermott et al., 1987; Keller et al., 1982). College and university students are in a period of transition from adolescence to young adulthood with increased autonomy from parental authority. It is a time of accelerating personal, social, and intellectual development, and also a period marked by increased sexual and drug experimentation by many students.

In response to the current AIDS crisis, many countries have launched extensive AIDS education campaigns for their citizens. However, in Thai society, where chastity and reticence about discussing sexual matter is traditional, schools and universities have shied away from the teaching of sexually related topics. Sexual communication is considered taboo, health issues are not openly discussed, and teachers are not comfortable in discussing high risk sexual behavior (Kanjawasee, 1990; Lock, 1987). These cultural norms influence the development and implementation of effective AIDS educational programs among college students in Thailand.

To understand the actions of young adults facing HIV infection, it is necessary to be aware of their knowledge,

attitudes and behaviors towards AIDS. Understanding young adults from the university community, and the effects of cultural taboos on their behavior is of great importance for AIDS education programs in Thailand. The present study focuses on the effects of knowledge and attitudes about AIDS on high risk behavior among students of Chulalongkorn University, the Faculty of Education, Bangkok, Thailand.

To date, there is no research that links knowledge of AIDS, attitudes towards people with AIDS and subsequent behavior among university students in Thailand. A study of this kind will help educators plan effective AIDS education programs.

Purpose of Study

The purposes of this study were: (a) to assess university students' knowledge and attitudes about AIDS, and their sexual behavior; (b) to ascertain whether accurate knowledge of AIDS and attitudes towards AIDS victims is related to sexual behavior; (c) to determine if sexual behaviors have altered as a result of AIDS awareness; (d) to determine if university students perceive themselves to be at risk for contracting AIDS; (e) to examine the relationship between demographic and the sexual behavioral patterns of this target population; and f) determine gender differences in attitudes, knowledge and behavior.

Hypotheses

In order to fulfill the purposes of the study the following hypotheses were tested.

HO₁ : There is no relationship between students' attitudes about AIDS and risky sexual behavior.

HO₂ : There is no relationship between students knowledge about AIDS and risky sexual behavior.

HO₃ : There is no significant difference between male and female students with respect to their attitudes towards people with AIDS.

HO₄ : There is no significant difference between male and female students with respect to their knowledge about AIDS.

HO₅ : There is no significant difference between male and female students in communicating with prospective partners about risky behaviors.

Definitions Of Terminology

To facilitate clarity and consistency, the following definitions apply whenever the respective terms appear in the text of this study (Jasny, 1993; Slack, 1991; Villarreal, et al., 1991; Quackenbush & Nelson, 1988).

AIDS is an acronym for 'Acquired Immune Deficiency Syndrome'. This disease causes an impairment of the body's

immune system in previously healthy individuals. While this impairment affects only a portion of the immune system, affected individuals are left vulnerable to otherwise controllable infections which invade the body and cause additional diseases.

AIDS-related Complex (ARC) is a diagnosis given to people infected with the HIV virus who have symptoms of illness related to AIDS infection, but do not meet the diagnostic criteria necessary to be given a diagnosis of AIDS. (This classification is still utilized in Thailand, but is no longer used in the United States)

Attitude is a state of mental and emotional readiness for reacting to situations, persons, or things in a harmonious manner with a habitual pattern of responses, previously conditioned to or associated with these stimuli. Attitude, in this study, refers specifically to the mental reaction (positive, negative, or neutral reaction) showing one's feelings or thoughts about AIDS.

Encephalopathy is an infection of the brain and spinal chord.

Epidemiology is the study of the distribution and causes of diseases.

HIV is an acronym for 'Human Immunodeficiency Virus' which has the unique ability to disarm completely the body's immune system that provides it with protection against invading pathogens.

HIV-Positive means having a positive reaction to HIV antibodies, although not currently ill or exhibiting physical symptoms. However, the person is a "carrier" of the AIDS virus.

Homophobia is the irrational fear or hatred of homosexual behavior or homosexuality.

Incubation period is the length of time between which an individual is first infected with a disease causing organism and the development of symptoms.

Knowledge is a precursor of behaviors and includes the acquisition of facts, the range of information, awareness, and/or understanding of these facts.

Lymphocyte means "lymph cell", the most common kind of white blood cell in the body. They are the basic cells in the biological immune system, feed other cells, control cell growth, and guard against infection.

Morbidity is the degree of symptomatic illness associated with an infectious organism.

Mortality is the state or condition of being subject to death.

Pandemic is the prevalence of a disease over a whole area of the world.

Perinatal refers to the period shortly before or shortly after birth.

Risky Behavior is any action that increases the likelihood of getting HIV/AIDS.

Sex education is an instructional measure or experience that focuses on sexuality and that prepares people to deal with life problems or issues that are sexual in origin.

Sexually transmitted disease (STD) is any disease characteristically transmitted by sexual contact, such as gonorrhea, syphilis, genital herpes, and chlamydia. Also called venereal disease.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter discusses literature related to the major themes of the study in six broad areas: the nature of HIV/AIDS, trends regarding the AIDS pandemic, trends regarding AIDS in Thailand, related research concerning at-risk behavior among adolescents, college and university students, and related research concerning knowledge of AIDS, attitudes towards AIDS and behavior among adolescents and college or university students.

The Nature of HIV/AIDS

AIDS is an incurable disease. In 1983, the retrovirus that causes the underlying immune deficiency in AIDS was independently identified by researchers in France and the United States. Various names were given to the virus: Lymphadenopathy Associated Virus (LAV) by Luc Montagnier of the Pasteur Institute (Barre Sinoussi et al., 1983), Human T-cell Lymphotropic Virus type III (HTLV-III) by Robert Gallo of the National Institutes of Health (Gallo et al., 1983); the term preferred by most scientists as a result of an international conference agreement in 1985 is Human Immunodeficiency Virus (HIV) (Coffin et al., 1986; Keeling, 1993).

HIV can be transmitted by direct blood contact; by semen during intimate sexual contact; by sharing contaminated needles; through injection of contaminated blood products, and across the placenta from the mother to the baby (Health and Public Policy Committee, 1986). It is not transmitted in saliva or by casual contact (Surgeon General, 1986). The virus is also found in breast milk, and although the risk of breast milk transmission is unclear, most researchers recommend that HIV positive mothers should be discouraged from breast-feeding (Life Sciences Research Office, FASEB, 1990).

HIV impairs the body's ability to fight infection (Farizo, Buehler, Chamberland, et al., 1992). The virus does this by destroying lymphocytes. Some lymphocytes, designated as B cells, remain in the bone marrow until they reach a more mature state. Other lymphocytes are called T cells because they mature in the thymus gland. Eventually, both B and T cells circulate through the blood stream and lymphatic system before lodging in lymph nodes, the spleen, tonsils or other peripheral lymphoid organs located throughout the body. There, they remain inactive until confronted with health-threatening pathogens such as organic pollutants, toxins, viruses, and bacteria. B cells respond to a pathogen by producing proteins called antibodies, designed to destroy that specific pathogen. T cells also respond in a highly specific way but through a variety of specialized mechanisms. For example, T helper cells release

chemicals called lymphokines that enhance the ability of B cells to produce antibodies. T suppresser cells, on the other hand, play the opposite role. Still others known as killer T cells, directly destroy antigens with lethal chemicals of their own.

Two of the most elementary cells that regulate not only the lymphocytes but also the central nervous system are the monocyte and the closely related macrophage. These cells normally play a pivotal role during the immune response. They are also a primary target of HIV. Within these cells, the virus can remain in a latent state for years (AIDS prevention project, 1988a and b). It can also be transported within the monocytes to other tissues throughout the body, and, when the immune system is activated, to T cells. It is when the T cells are subsequently destroyed that the infected individual develops AIDS.

Lymphocytes help to prevent cancers by controlling cell growth. They are one of the most common cells in the body and migrate rapidly throughout the body. As a result, if they become infected with HIV, the virus is carried throughout the body (AIDS prevention project, 1988a and 1988b). If the lymphocytes are damaged or destroyed, as in AIDS, the immune system does not respond properly. The person becomes more susceptible to some of the many infections and diseases that exist within the environment. Because the virus damages and destroys lymphocytes, people

with AIDS often get infections normally prevented by the antibodies producing white blood cells.

These infections are called opportunistic infections because they take advantage of a weakened immune system. The virus cannot live and reproduce by itself. Instead, it takes over lymphocytes, and relies on them to grow, multiply, move about, and render the body vulnerable to the devastating diseases that accompany AIDS. The time period between the initial infection with HIV and the development of AIDS varies among individuals. The mean incubation period is thought to be as long as 14 years (AIDS Prevention Project, 1988a and b).

Manifestations of HIV infection

The acute phase of an initial AIDS infection may last for 2 weeks, with symptoms similar to a viral infection: fever, sore throat, arthralgias, and rash. Persistent generalized lymphadenopathy, characterized by enlarged lymph glands at two or more extrainguinal sites, may be present. Constitutional disease, also known as AIDS wasting syndrome, is common in the HIV-positive individual for whom no other cause of the symptoms has been identified (Centers for Disease Control, 1987). Common signs of such infection include: persistent fever, often with night sweats, chronic or intermittent fatigue and malaise, and diarrhea of unknown etiology. Involuntary weight loss is also common. Opportunistic infections from bacteria, fungi, protozoa, or

viruses are often the cause of diarrhea, malabsorption, fever, and weight loss as well as many other symptoms. Common infections and their manifestations are summarized in Table 1.

Malignancies

Kaposi's sarcoma (KS), a malignancy of the endothelial cells, manifests as purple nodules that may be painless or may be accompanied by a burning sensation when present in the gastrointestinal tract. The skin, mucous membranes, lymph nodes, or bowels are common sites (Gelb & Miller, 1986). Lesions in the mouth and esophagus may result in dysphagia and odynophagia and may be associated with nausea and vomiting (Garcia et al, 1987). KS in the bowel may cause ulceration. Lymphomas may occur as lymphomas of the small bowel or brain or as increasing lymphadenopathy. Lymphomas respond poorly to therapy.

TABLE. 1: SYMPTOMS ASSOCIATED WITH AIDS-RELATED INFECTIONS*

AID-Related Infections	Common Physical Problems and Symptoms
Candida Albicans (Fungi)	
Oral (thrush)	Loss of appetite, white plaques, mouth discomfort, change in taste
Pharyngeal	Dysphagia, sore throat
Esophageal	Substantial burning-type pain, difficulty in swallowing
Proctal	Rectal pain, weeping lesions (without plaques), pruritus
Cryptococcus neoformans (Fungi)	
Meningitis	Fever, severe headache, obtundation, stiff neck, change in mental status, untoward side effects related to antibiotics
Pneumonia(occasionally)	
Cryptosporidium enteritis(Protozoa)	
Infection of large and small bowels	Severe watery diarrhea (up to 15/20 l/day), weakness, electrolyte imbalance, abdominal cramping, fever, nausea, vomiting
Cytomegalovirus(virus) (CMV)	
	Blindness or visual loss (retinitis), fever, fatigue/severe malaise, weight loss, facial edema (secondary to adrenalitis), enteritis, or colitis
Herpes simplex(virus)	
	Weeping skin lesions (oral, perirectal), rectal bleeding, rectal discharge, pain
Herpes Zoster (shingles) (virus)	
	Vesicular skin lesions along dermatomas, pain
Mycobacterium avium-intracellulare (bacteria) (MAI)	
	Fever, severe weight loss/cachexia, addominal pain, diarrhea, malabsorption, antibiotic side effects
Pneumocystis carinii pneumonia (PCP) (Protozoa)	
	Fever, chills, night sweats, cough with or without sputum production, shortness of breath, antibiotic side effects, weight loss, weakness
Progressive Multifocal Leukoencephalopathy	
	Progressive weakness and dementia, speech problems, forgetfulness, perceptual problems visual problems incontinence

* Adopted from Martin J, Hughes A, and Franks P: AIDS Home Care and Hospice

Manual, 2nd ed. San Francisco, Visiting Nurses and Hospice of San Francisco, 1990.

Neurologic Disease

HIV encephalopathy, also known as AIDS dementia, appears to be associated with HIV infection of the central nervous system and is unrelated to and often precedes other infections (Navia and Price, 1987). Symptoms of the initial phase include forgetfulness and concentration difficulties. Myelopathy with loss of balance, muscular leg weakness, and peripheral neuropathy with numbness or painful dyesthesias may also develop as the disease progresses.

Trends Regarding the AIDS Epidemic in Southeast Asia

It is estimated that 20 million adults and 10 million children worldwide will become infected with HIV by the year 2000 (WHO, 1993). According to WHO projections, by the year 2000, 90% of all cases will be in developing countries and 80% of these cases will be infected as a results of heterosexual intercourse.

Nowhere is the situation more urgent than in southeast Asia, where it is estimated that there may be many as 1,500,000 HIV positive individuals. The vast majority of these cases are in two countries: India and Thailand (WHO, 1993). Most of the individuals in these countries contracted the disease through intravenous (IV) drug use or prostitution.

Trends Regarding the AIDS Epidemic in Thailand

It is now officially accepted that up to 300,000 Thais are infected with the virus, and projections suggest that the number of HIV-positive in Thailand will pass 1 million by 1994. This figure is likely to rise to four million by the year 2000 (WHO, 1993). Three quarters of these people will be young adults. In a 1991 survey, 2.9% of all Thai army recruits between the ages of 20 and 22 were HIV positive. This number is quite alarming when one considers that the recruits represent the closest approximation to a truly random sampling of young males in Thailand. Furthermore, eight percent of men who contact medical help about an STD are also HIV infected (WHO, 1993).

In December 1987, approximately ninety-one percent of the HIV-infected cases reported were men, while nine percent were women. Of these, thirty-four percent were homosexual or bisexual men; fifty-four percent were male intravenous drug users (IVDUs) (their sexual orientation is not known); one percent were infected through blood transfusions, and eleven percent were heterosexual men and women. The ages of high risk of HIV infection ranges between nineteen and fifty-two year-of-age (Thai CDC, 1988). Further data has been reported based on serological studies of HIV at Tanyarak Hospital (Tanyarak Hospital, 1988). Of 7,282 IVDUs confined in the hospital, 1,044 cases were diagnosed as seropositive for HIV. Of those, 997 were male and 47 were

female. Thailand may have as many as 500,000 IV drug users because the Golden Triangle poppy growing area spills over the northern border of the country. Heroin is plentiful and cheap (WHO, 1993).

More recent data published by the Thai CDC, Ministry of Public Health (Table 2) describes the total number of AIDS and AIDS Related Complex (ARC) cases by age and sex. These data show that the great majority of AIDS and ARC cases are male and between the ages of twenty and thirty-nine.

TABLE. 2: DISTRIBUTION OF TOTAL AIDS AND ARC CASES BY AGE AND SEX FROM SEPTEMBER 30, 1984 TO JANUARY 31, 1993.

Age (year)	AIDS		ARC		total	
	Male	Female	Male	Female	Male	Female
0-4	75	69	34	34	109	103
5-9	2	-	-	-	2	-
10-14	1	2	1	-	2	2
15-19	24	11	48	38	72	49
20-24	181	41	279	82	460	123
25-29	302	15	362	44	664	59
30-34	256	20	293	24	549	44
35-39	176	10	168	16	344	26
40-44	63	6	91	7	153	13
45-49	47	2	43	3	90	5
50-54	27	-	37	1	64	1
55-59	22	1	18	-	40	1
60+	33	-	22	3	55	3
unknown	3	1	9	1	12	2
total	1211	178	1405	253	2616	431

source: The Center for Disease Control, Ministry of Public Health, March 12, 1993.

Other data published by the Thai CDC, Ministry of Public Health (Table 3), describe the total number of ARC cases. The cases are classified by risk characteristics. A very significant majority (77.5%) of ARC cases are reportedly infected through sexual transmission, and 63.4% are infected through heterosexual transmission while the second majority of cases are infected through IV drug use.

TABLE. 3: DISTRIBUTION OF ARC, BY RISK CHARACTERISTICS FROM SEPTEMBER 30, 1984 TO JANUARY 31, 1993.

Risk Characteristics	1985 1986	1987 1988	1989 1990	1991 1990	Total	%
1. Sexual Transmission	13	13	216	1043	1285	77.5
Homosexual (male)	5	7	8	4	24	1.4
Bisexual (male)	5	1	4	-	10	0.6
Heterosexual (male)	1	1	159	891	1052	63.4
Heterosexual (female)	2	4	45	148	199	12.0
2. I.V. Drug Transmission		17	84	150	251	15.1
Male		16	82	145	243	14.7
Female		1	2	5	8	0.5
3. Blood Products		1	2	6	9	0.5
Transmission		-	2	5	7	0.4
Male		1	-	1	2	0.1
Female		-	10	54	64	3.9
4. Placental Transmission		-	5	28	33	2.0
Male		-	5	26	31	1.9
Female		2	6	41	29	3.0
5. Unknown		1	5	33	39	2.4
Male		1	1	8	10	0.6
Female						
Total Number of Cases	13	33	318	1294	1658	100
Total Survive	13	22	287	1117	1439	86.8

Sources: The Center for Disease Control, Ministry of Public Health, Thailand, March 12, 1993.

Prostitution

With the advent of AIDS, prostitution in Thailand has become a sensitive political issue. A recent governmental survey conceded that 24% of all prostitutes are HIV positive (WHO, 1993). In studies, of lower-economic brothels, four out of five prostitutes, are infected with the virus (WHO, 1993). Foreign business travelers, military personnel and Thai men who have sexual intercourse with prostitutes are at risk of HIV infection.

The rapid escalation of HIV infection in the country is most linked to the frequency with which males visit prostitutes of both sexes. Tourism is the country's largest source of foreign currency and one reason is the country's flourishing sex industry. Up to one-third of the country's four million male tourists each year use the men, women, and children who sell sex. The annual 1990 census of gay bars and other sites for male prostitution recorded 1679 male prostitutes working in 78 establishments and 86,494 female prostitutes working in 6160 establishments nationwide (Weniger et al., 1991). These numbers are probably severely underestimated.

Certain sectors of the mass media have suggested that there may be as many as one million female prostitutes in Thailand (MacDenale, Ramah, Laing and Carswell, 1988). The Royal Thai Government's estimates of some 80,000 may not be reliable given the difficulty of identifying and tracing this mobile group. Most are thought to migrate (or may

actually be recruited) from the rural areas where economic conditions are often difficult, to Bangkok, where they become engaged in the sex industry. Many of these men and women are quite young (12-25 years old) and most apparently do not remain prostitutes for long periods of time. While working in Bangkok, many maintain live-in boy friends or girl friends who may themselves also be prostitutes. IV drug use is said to be common among both male and female prostitutes making distinctions between modes of transmission difficult. When the prostitutes tire of the trade, usually between one to five years, the conventional practice is to return to their home provinces.

Different forms of prostitution exist in Thailand, low income prostitutes being the most numerous. The National Commission on Women's Affairs of Thailand works on the assumption that prostitution is caused by a number of social problems including: poverty, broken homes, and a lack of education and skills. Prostitution is seen as a solution to poverty and unemployment. The need for money is paramount. Some prostitutes are frequently alcohol or drug dependent and support their dependency via prostitution.

It is common for inexperienced young men in Thailand to visit prostitutes as a learning experience. A traveling businessman may rely on prostitutes for both sex and companionship. Also, married Thai men patronize prostitutes to fulfill sexual needs. Thai male sexual behavior may provide many opportunities for the virus to be spread beyond

its original sentinel groups. Homosexual activity is reportedly widespread and more-or-less condoned by society, although seldom discussed publicly. This same sex activity provides sexual release for men whose access to women is limited outside of marriage. They describe such sexual activity as relatively uncomplicated and take opportunities to practice sex wherever and whenever an opportunity arises (MacDonald, et al., 1988). This permits Thai men to avoid the stigmatizing label of "homosexual" so long as he is the assertive or active partner. Passive partners often identify themselves as heterosexuals who are employed as sex workers for purely economic reasons. Self-identified homosexuality, in terms of membership in a sub-culture, is less common in Thailand and not as politically noticeable as in other countries.

Seropositive rates among Thais and foreign nationals incarcerated in twelve of the approximately two hundred prisons in Thailand has alarmed Thai officials. Incidence rates are high in these prison populations and IV drug use is thought to account for most cases. Homosexual activity among the prison population has been consistently discounted by officials who also point out that it would be impossible to distribute condoms as a preventive measure as such a practice would, in effect, condone an illegal activity (MacDonald et al., 1988).

In Thailand, specific data about risk factors that cause the transmission of the virus, and potential

contributing co-factors is lacking. The history of sexually-transmitted diseases and other infections, and demographic information about those identified as HIV positive has not been carefully tracked (MacDonald, et al., 1988). The Royal Thai Government (RTG) has been slow to recognize the degree of the AIDS problem. AIDS in Thailand is, as nearly everywhere else, a political issue. Political considerations may still drive much of what the RTG is or is not doing about AIDS (MacDonald, et al., 1988).

Related Research Concerning At Risk Behavior among Adolescents, College and University Students

College and university students are one of the most important target audiences of an AIDS education program. Because adolescence is a period of profound physical and psychological change, many of them experiment with many types of behaviors, some of which are dangerous. Not only do adolescents experiment with sexual behavior, but may also try injecting drugs. These young people are putting themselves at great risk as they explore their own sexuality and experiment with drugs.

Adolescents At Risk

About 30 percent of the world's population is between 10 and 24 year old. Worldwide, many adolescents aged 15 to 19 and young adults 20 to 24 have syphilis and gonorrhea

(WHO/UNESCO, 1992; Mann et al, 1992)). In addition, at least one -fifth of all people with AIDS are in their twenties and most are likely to have become infected with HIV as adolescents (WHO/UNESCO, 1992; Mann et al, 1992).

Experts predict that adolescents are at great risk for the spread of HIV (Hein, 1990; Mann et al, 1992). Although fewer than 1 percent of all AIDS cases to date are in the adolescent population, more than 20 percent of all AIDS cases reported to CDC (1991) are in individuals in their 20s. Because the incubation period of this disease is known to be as long as 8 to 10 years, many of these young people contracted the virus as teenagers.

Adolescence is a time of life characterized by experimentation, confusion, and challenging authority. Teens see themselves as immortal and invulnerable, which can lead them to take chances and experiment with risky sexual behaviors and drug use (Gray & House, 1989). The lack of perceived vulnerability to AIDS is highest in the adolescent population; furthermore, the teen peer culture influences adolescents to continue high-risk behaviors. Many teens do not receive accurate information about sex or drugs, and those who receive AIDS education and understand the facts about HIV transmission are still engaging in high-risk behaviors (The Center for Population Option, 1989, 1990). All adolescents who engage in risky behaviors are vulnerable to HIV infection.

College And University Students At Risk

University students are at higher risk for HIV infection and AIDS than the general population (Edgar et al., 1988; Okie, 1989; American College Health Association, 1988; College AIDS Survey, 1989). This greater risk stems from relatively high levels of sexual activity, potential for multiple sex partners, and high-risk sexual behaviors (MacDonald et al., 1990; McDermott et al., 1987; Keller et al., 1982). Approximately three out of every 1,000 college students in the U.S. are infected with the HIV virus (Associated Press, 1988).

Contributing to the high risk of college students are "high transmission" behavior such as experimentation with sex, alcohol, and drugs (Baldwin & Baldwin, 1988; Keeling, 1987). Surveys indicated an estimated 65 to 85 percent of college student are sexually experienced (Cline, Freeman, & Johnson, 1990; Knox & Schacht, 1990; Gray & Saracino, 1989), and one-fifth to one-third of students surveyed on various campuses report having multiple sex partners (Baldwin & Baldwin, 1988; Cline, Johnson & Freeman, 1990).

Although the sexual behaviors of many college students increase their risk of having HIV infection, students underestimate their personal risk of acquiring AIDS (Matica, 1989, Atkinson, Hasaig, 1987; Chervin & Martinez, 1987). Freimuth, Edgars & Hammond (1987) reported that over 60 percent of the students surveyed on one college campus said heterosexuals had a moderate to high risk of contracting

AIDS, yet 75 percent of the total respondents rated their personal risk as very low.

In summary, most studies have shown that college students are not concerned about AIDS and do not perceive themselves to be at risk (Baldwin & Baldwin, 1988; Gray & Saracino, 1989; Simkin & Eberhage, 1984; Strunin & Hingson, 1987).

Related Research regarding Knowledge of and Attitudes about AIDS and Behavior towards AIDS.

A review of current literature among adolescents, college or university students, education students and educators is reported below.

Adolescents, college and university students in North America and Canada

A number of studies have investigated samples of college and high school students. In the earliest such study, Simkins and Eberhage (1984) suggested that, among college students, a lack of concern may be related to the relatively low incidence rates in local areas. Similarly, Price, Desmond, and Kukulka (1985) reported that the high school students in their Ohio study possessed little information about AIDS and that many were unconcerned about the threat that AIDS poses.

DiClemente et al. (1986) administered a questionnaire on AIDS to 1,326 high school students in the San Francisco area. Students were found to have some limited knowledge about AIDS. The study found that a large majority of the students, knew that sexual intercourse was one of the main modes of contracting AIDS (92%), but only 68% knew that physical contact, such as shaking hands, could not lead to transmission of the disease. The researchers also reported widespread fear or worry about contracting AIDS and a high degree of support for teaching about AIDS in school (87.6%) although only 35.3% of the students reported having had such instruction.

Strunin and Hingson (1987) surveyed 602 sexually active adolescents in Massachusetts. This study found that 96% of adolescents had heard of AIDS and almost 50% had discussed the subject with a parent or other adult family member. Confusion existed regarding the transmission of AIDS, particularly concerning the meaning of "bodily fluids". Eleven percent of the respondents who knew someone with AIDS believed that those with AIDS were contagious; 23.2% believed that someone with AIDS should not be allowed to attend school because of the potential for transmission; and 61% did not think it likely that they would get AIDS in their lifetime. The investigators in both of these studies suggested that there is a need for AIDS education in the school curriculum.

A survey by Baldwin & Baldwin, (1987) ask for information about a large number of topics relevant to AIDS among 1,426 undergraduates at a university in Southern California. Results showed that the students were quite knowledgeable about AIDS transmission. Most students believed they had little risk of contracting AIDS, and they were unlikely to worry about contracting AIDS from their sexual activity. Condom use was more frequent in students from homes with higher parental education and higher parental income.

DiClemente et al (1990), assessed students' knowledge and attitudes about AIDS and HIV-preventive behavior, among 1,127 university and college students. The findings indicated that while students demonstrate a high level of knowledge with respect to AIDS transmission they are also likely to possess many misconceptions about casual contact as a route of HIV transmission. HIV-related sexual risk-taking behavior was also substantial. A large proportion of students report never using condoms during sexual intercourse and having had multiple sexual partners during the year preceding the survey. Knowledge of AIDS transmission was not related to behavior change.

Gray and Saracino, (1989), examined the possible relationship between knowledge about AIDS and sexual behavior among 459 undergraduate college students from a land grant university in the Northwest. The majority of the students indicated that AIDS was not an issue of personal

concern. Student were generally informed about AIDS, although one-third of the students were unclear about the transmission of the disease through casual contact. Data analysis indicated that no relationship existed between accurate knowledge about AIDS and sexual behavior. Gray and Saracino also surveyed undergraduate students' attitudes toward people with AIDS, their beliefs about AIDS in relationship to themselves, and their sexual behaviors and communication patterns. Data indicate an inconsistency between students' accepting attitudes toward people with AIDS and willingness to become involved on a personal basis. The majority of subjects disagree strongly with the attitudinal statements that "people with AIDS should be grouped together and isolated", and "persons with AIDS are dangerous to allow in public". A majority of subjects believed that people with AIDS should be allowed to attend public school; more than half indicated they would mind if their child's classmate had AIDS; and less than half would agree to work alongside someone who had AIDS. Female participants were more accepting in their attitudes towards people with AIDS than male participants.

Svenson & Varnhagen (1989), examined 211 first year undergraduate students at the University of Alberta, Canada. The general findings showed that most students are relatively well informed about the transmission and progression of AIDS. A relatively small proportion of students seem to recognize that they are at risk for

contracting AIDS. Only a minority of students report that they practice "safer sex."

In a survey of 5,514 Canadian university students, McDonald et al. (1990) found that 20% of those who were sexually active reported always using a condom. This survey also revealed that 14.3% of the men and 18.6 % of the women had engaged in anal sex.

Bouton et al.(1989) conducted a survey of 528 Texas university students regarding attitudes towards AIDS. The results showed that conservative students were more fearful of AIDS than liberal students. Also Protestants were more fearful than members of other religious groups, and fraternity and sorority members were more fearful than students who were not members of these organizations.

A study was conducted by Brown (1989), to assess the effects of AIDS educational campaigns on students' behavior at a large university located in the western region of the U.S. The survey questionnaire was administered to 257 university students enrolled in advanced communication courses. Most of the participants had been exposed to AIDS information during the past year. Results indicated that respondents with an Asian-Pacific cultural orientation were less concerned about AIDS and engaged in less AIDS related interpersonal communication than respondents with a North American cultural orientation.

Lawrence, Husfeldt, Kelly, Hood, Smith (1990) studied 300 college students and found that homophobia is a good

indicator of prejudice towards people with AIDS. Also in a study of 407 French Canadian adults, Tessier (1989) reported homophobia as a key indicator associated with negative attitudes about AIDS.

Education students and educators

Cinelli et al., (1990) examined 216 students who were preservice elementary, health/physical education, school health students at a moderate size university in the U.S. The majority of respondents (52%), indicated that television was the primary source of information followed by magazines (33%). Most of the students (86.6%) did not personally know someone with HIV/AIDS. Also, the respondents (73%) knew that AIDS was a contagious disease. A vast majority of students knew that AIDS is caused by a virus, and a pregnant women with the HIV virus can transmit the infection to her newborn. But only about half (58.3%) correctly identified the United States to have the maximum number of reported cases of AIDS in the world. Approximately one of five respondents (21.3%) erroneously believed that women have a greater natural immunity to AIDS than men. Sixty-three percent correctly identified anal sex to be more dangerous than oral or vaginal sex. However, nearly half the respondents (50.9%) did not recognize that spermicidal gel in conjunction with a condom increases protection against AIDS. Only one out of four respondents (24.1%) knew the affect of the infection on the brain. One out of four

(26.4%) also believed that a recent blood test is proof that a person is not an AIDS virus carrier. Nearly one out of three respondents were concerned that children with HIV/AIDS can transmit the virus through spitting or biting and considered the risk of HIV infection. Less than half (45%) erroneously felt that HIV/AIDS screening of children seeking entrance to school is strongly recommended by professional educational associations.

Bowd (1987), assessed information and misconception concerning AIDS among samples of education students and experienced teachers. Results revealed a reasonably high degree of misinformation regarding transmission of HIV virus through casual contact. For example, 20% of students and 40% of teachers believed that the virus was transmitted through friendly kissing. Twenty percent of the teachers did not believe the disease to be transmitted sexually, and forty percent did not believe that an infected female could transmit the disease sexually. There were significant deficiencies in the knowledge of both teachers and students.

Kerr, Allensworth, and Gayle (1989) assessed the needs for HIV resources and knowledge about HIV among health and education professionals. Compared with the 1987 National Health Interview Survey, the health and education professionals were more knowledgeable about HIV. This survey was conducted in March and April 1988 and received 2,855 responses. However, there were knowledge gaps. Thirty-nine percent did not know that HIV can damage the

brain; 23% believed friendly kissing was a mode of transmission; 72% did not know that a spermicidal jelly, foam or cream was effective in preventing the spread of HIV; and 36% thought a positive HIV antibody test indicated that a person has AIDS.

Summary of findings in North America and Canada

The review of the above studies indicate a lack of knowledge and widespread fear or worry about AIDS among the early studies (Simkins & Eberhage, 1984; Price, Desmond & Kukulka, 1985; DiClemente et al., 1986). Most recent studies indicate students were generally informed but were confused and unclear about transmission of the disease through casual contact such as shaking hands, and mosquito bites, (Baldwin & Baldwin, 1987; Strunin & Hingson, 1987; Gray & Saracino, 1989; DiClemente et. al, 1990) and have misconceptions regarding homosexuals (Gray & Saracino, 1989; Tessier, 1989; Lawrence et al, 1990). A number of studies reveal students do not perceive themselves to be at risk of contracting HIV (Strunin & Hingson, 1987; Baldwin & Baldwin, 1987; Gray & Saracino, 1989; Svenson & Varnhagen, 1989; DiClemente et al., 1990; McDonald et al., 1990). Limited research has been done on the relationship between knowledge, attitudes, and sexual behaviors. The available studies indicate no relationship between knowledge and sexual behavior (Gray & Saracino, 1989; DiClemente et al., 1990).

Adolescents, college and university students in Thailand

A survey was conducted at Chiangmai's Teacher College (Chaikuna & Bunyaprapa, 1991) to determine knowledge, attitudes and behavior regarding AIDS among 1200 post secondary school students. Results showed that only 41% knew biomedical facts. Less than 80% knew: the meaning of HIV positive; that there is no transmission of HIV virus through mosquito bites; and at that there is no vaccine against AIDS. Forty-five percent revealed fear of getting HIV through using public toilets and receiving other public services. More than 80% believed that they could protect themselves from AIDS; only 32% perceived themselves as being at risk for AIDS and most of the respondents did not use condoms. About eight percent erroneously believed that only prostitutes had AIDS and there will be no AIDS in their groups. Regarding attitudes toward People With AIDS, more than half (59%) felt sympathetic to PWAs, while almost the same (58%) fear people with AIDS.

Khonkaen University (Thonggrajai et al., 1993), in their study among 106 adolescents in secondary and vocational schools in Khonkaen province, found that most students had some knowledge about AIDS. Generally, students felt they were not at risk for contracting AIDS although they were afraid of getting AIDS. Most students fear contracting AIDS via casual contact such as using public toilets, or from fountain drinking water.

Tungphaisal, et al (1990), surveyed the knowledge, attitudes and practices of 2,697 university students in 4 universities in Songkla province, Thailand. With regard to AIDS, most students knew about biomedical facts but they had low knowledge regarding AIDS transmission through the followings: 1) Oral and anal intercourse; 2) Mosquito bites; and 3) Casual contact. The study also indicated more males than female students had premarital sexual intercourse. A large percentage of sexual partners of male students were prostitutes. The most common sources of information about reproductive health came from books, magazines, television and video. Only a small portions came from teachers.

Summary of findings in Thailand

Most studies in Thailand revealed inconsistencies regarding knowledge of AIDS. Students level of knowledge is not complete. Large numbers incorrectly believe AIDS can be transmitted via casual contact. Although they are afraid of getting AIDS, they feel invulnerable from contracting AIDS. The studies also show that most students' knowledge about AIDS was obtained from media sources and not through schools or universities.

CHAPTER III

OVERALL DESIGN AND METHODOLOGY

This chapter describes the research design and specific methodology used in this study, as well as the subjects studied, and the details of the data collection instrument. In addition, information on the hypotheses tested and the statistical methods for analyzing the data are included.

Subjects

The study sample was selected through randomized sampling of every level of student at Chulalongkorn University, Faculty of Education. The subjects were classified according to sex, age, religion, family household income, current class standing, housing and living arrangements. The total number of subjects for this study was 293, out of a total of 960 students in the Faculty of Education. The ratio of female to male students in the Faculty of Education is 3 to 1.

The demographic characteristics of the study subjects were as follows:

1. Sixty-nine percent were female and 25% were male and 6% did not respond.

2. Seventy-one percent were from the Central Thailand, 14% were from the North-East, 5% were from the South, and 4% were from the North of Thailand and 6% did not respond.

3. Ninety percent were Buddhist, 2% were Catholic, 2% were Other Christian (Non-denomination), 1% were Islam. One percent identified no religion and 4% did not respond.

4. Forty three percent were freshmen, 12% were sophomores, 8% were juniors, and 37% were seniors.

5. Ninety-three percent were single, and 1% were married and 6% did not respond.

6. Twenty percent were living with roommate(s), 29% live alone, 2% cohabitation with partner of the same sex, 1% were living with spouse, 40% were living with others not mentioned in the questionnaire, and 9% did not respond.

Instrumentation

Students attitudes, beliefs, and knowledge about AIDS was measured by standardized instrument designed by Gray and Saracino (1989) (see Appendix A.) This instrument contains, the entire 20 item Likert-type scale entitled Attitudes Toward AIDS Victims (ATAV) (Larsen, Long, & Serra, 1988) and a 37 True-False Knowledge Scale on the etiology, transmission, symptomology and prevention of AIDS. The instrument was translated into Thai language (See Appendix B) and was translated back into English by Dr. Reese House

and a team of researchers to ensure the accuracy of this translated instrument.

Response categories for the ATAV scale range from strongly disagree to strongly agree with a 1 (strongly disagree) to a 5 (strongly agree) point value assigned for each choice response. The ATAV Scale has a possible range of 20 to 100 points. Higher scores indicate more favorable attitudes toward people with AIDS. The corrected split-half reliability of the ATAV scale is .87, with an alpha coefficient of .91. The True-False Knowledge Scale has moderate reliability with a reported KR-20 of .68.

The survey instrument also included specific questions related to AIDS, including sources of AIDS information, sexual beliefs relation to themselves, communication with prospective sexual partners, as well as current sexual practices. Further information was obtained through various demographic questions, which included such questions as gender, age, ethnic background, religious affiliation, sexual orientation, sexual preference, and living arrangements. At the end of the questionnaire respondents were given the opportunity to share any additional comments about their concern with AIDS.

Data Management

The study was conducted from February 9th to March 24th, 1993. The study sample was selected by randomized

sampling from every level of education among student teachers of Chulalongkorn University, Faculty of Education. A total of three hundred questionnaires were distributed, together with the cover letters which explained the reasons why their cooperation was being sought and the procedure for completing the questionnaires. The confidential nature of the inquiry was emphasized, and respondents were assured that all data would remain anonymous. All questionnaires were hand delivered and then systematically coded. A total of two hundred and ninety-three questionnaires or 99.3% were completed and processed for analysis.

Data were analyzed using the SPSS/PC programs. Students' attitudes were measured according to responses on the 20-item ATAV Scale. For certain items, reverse scoring was utilized to calculate total scale points. For purposes of reporting the study's finding and ease of discussion, response choices for the ATAV scale were collapsed into three categories: agree, disagree, and no opinion.

Statistical Design

Descriptive statistics

Descriptive statistics were utilized in this study to examine individual questionnaire items. Such descriptive statistics include item means, standard deviations, frequency distributions of demographic information, and also valid percentage results.

Analysis of Variance

An analysis of variance (ANOVA) was used to determine if there were differences in reported sexual behavior with respect to subjects attitudes (HO₁) and knowledge (HO₂) of AIDS.

T-tests were applied at the .05 level of confidence to determine if there were significant differences between the means of male and female students with respect to attitudes (HO₃) and knowledge (HO₄) about AIDS. The t-test was also used to determine differences between gender regarding the communication with prospective sexual partners (HO₅).

Chi-square test

Crosstabulations were made on the demographics and the chi-square method was employed to test the demographic variables.

Pearson Product Moment Correlation

Pearson Product Moment Correlation was used at .05 level to determine the relationship between risky sexual activities in question 10 (wet kissing and oral sex) with respect to attitudes (HO₁) and Knowledge (HO₂).

Limitations and Advantages

Subjects were assured of their anonymity which hopefully encouraged them to respond honestly and frankly. In addition, the return rates in this study were very high at 99.3 percent.

One of the limitations of this study was the inability to check the responses to assure that every question was answered. In addition, personal inhibitions of the respondents stemming from the traditional belief that sexually oriented topics are not to be discussed publicly could bias the results. Another limitation of the study was the relatively high percentage of females in the study.

CHAPTER IV

ANALYSIS OF DATA

This chapter presents the results of the study. Each of the five hypotheses were tested. The hypotheses were stated in the null form.

A description of the subjects who took part in the research project is reported in this chapter, followed by a presentation of the data as it relates to each hypothesis. Additional demographic information on the subjects is given.

Descriptive Analysis

A randomly chosen sample of undergraduate students from the Faculty of Education, Chulalongkorn University, Thailand were surveyed for this study. Questionnaires were administered to 300 subjects with 293 usable surveys returned, for a response rate of 99.3 percent.

Subjects Characteristics

Table 4 describes the characteristics of student subjects used in this study.

TABLE 4. DEMOGRAPHIC CHARACTERISTICS OF SUBJECTS (N=293)

<u>Gender</u>	<u>Number</u>	<u>Percent</u>
Male	74	25.3
Female	203	69.3
No response	16	5.5
<u>Marital Status</u>		
Single	272	92.8
Married	4	1.4
No response	17	5.8
<u>Ethnic group</u>		
Northern Thailand	11	3.8
Central Thailand	209	71.3
Southern Thailand	14	4.8
North-Eastern Thailand	40	13.7
No response	19	6.5
<u>Religion</u>		
None	3	1.0
Catholic	5	1.7
Protestant	1	0.3
Other Christian (Non-denomination)	4	1.4
Buddhism	263	89.8
Islam	4	1.4
No response	13	4.4
<u>Age Categories (years)</u>		
15-20	157	57.5
21-25	114	41.8
26-30	1	0.4
Over 30	1	0.4
No response	20	6.8
<u>Class Standing</u>		
Freshman	127	43.3
Sophomore	34	11.6
Junior	23	7.8
Senior	109	37.2

TABLE 4. (CONT'D)

<u>Parental yearly's income</u>	<u>Number</u>	<u>Percent</u>
<\$2,000	42	14.3
\$2,000-\$10,000	100	34.1
\$10,000-\$20,000	65	22.2
\$20,000-\$40,000	26	8.9
\$40,000-\$60,000	23	7.8
>\$60,000	15	5.1
No response	22	7.5
<u>Housing Arrangement</u>		
Dormitory	34	11.6
Relative's home	22	7.5
Their own home	173	59.0
Apartment, flat, or renting a house	10	3.4
Others	42	14.3
No response	12	4.1
<u>Living Arrangements</u>		
Living with spouse	2	.7
Cohabitation with opposite sex	1	.3
Living with roommate(s)	59	20.1
Live alone	84	28.7
Cohabitation with same sex	5	1.7
Others	117	39.9
No response	25	8.5
<u>Sexual Orientation</u>		
Heterosexual	154	52.6
Homosexual	15	5.1
Bisexual	11	3.8
No response	113	38.8
<u>Feeling when Talking about Sex</u>		
Feeling the same as other topics	163	55.6
Feeling uncomfortable	113	38.6
Feeling of embarrassment	2	7
No response	15	5.1
<u>Talk to people about AIDS</u>		
Often talk	230	78.5
Never talk	42	14.3
No response	21	7.2
<u>Experienced in Sexual Intercourse</u>		
Had experience	49	16.7
No response	244	83.3

TABLE 4. (CONT'D)

<u>Sexual Preference</u>	<u>Number</u>	<u>Percent</u>
With the same sex	7	2.4
With the opposite sex	39	13.3
With the same sex, and opposite sex	3	1.0
No response	244	83.3
<u>Change in sexual behavior due to AIDS awareness</u>		
Has remained the same	26	8.9
Has fewer sexual partners	13	4.4
Has more sexual partners	10	3.4
Not sexually active	168	57.3
No response	76	25.9
<u>Change in IV drug use due to AIDS awareness</u>		
Has remained the same	4	1.4
Has had fewer drug uses	7	2.4
Has had more drug uses	1	0.3
Do not use drug	215	73.4
No response	66	22.5
<u>Self Perceived Risk of getting AIDS</u>		
High Risk	3	1.0
Average Risk	24	8.2
Low Risk	132	45.1
No Risk	122	41.6
No Response	12	4.1
<u>Know person who tested for HIV</u>		
Yes	68	23.2
No	213	72.7
No response	12	4.1
<u>Have ever been tested for HIV</u>		
Yes	33	11.3
No	246	84.0
No response	14	4.8
<u>Results Of HIV test</u>		
Negative	32	10.9
Positive	7	2.4
Haven't got result	18	6.1
Do not wish to answer	77	26.3
No response	159	54.3

The sample consisted of 293 students, 203 women and 90 men, The age ranged from 15 to 31 years of age with a mean

age of 20.13 year. The vast majority (71.3%) were from Central Thailand. Buddhist was their major religion (89.8%). The largest group (34.1%) reported their parents' yearly income between \$2,000 and \$10,000. All grade levels, freshmen through senior students were represented; however, the majority were freshmen and senior. Most of them were unmarried (92.8%). A little more than half (52.6%) indicated their sexual orientation to be heterosexual. While 8.9% indicated they were homosexual or bisexual. The rest did not identify themselves.

Only 16.7% of the sample reported having sexual experiences; 13.3% reported to prefer opposite sex, 2.4% reported a same sex preference or the same sex and sometimes opposite sex preference. Fifty nine percent were living in their own house, 20% were living with a roommate, 28.7% were living alone and 0.7% were living with a spouse.

Due to awareness of AIDS, 4.4% students reported being less sexually active, 3.4% had more sexual encounters and 8.9% reported their sexual activities have remained the same.

Regarding perceived risks for AIDS, a little less than half (45.1%) indicated that their risks of getting AIDS is low; 41.6% identified themselves not to be at risk. One percent accepted that their risks of getting AIDS is high and 8.2% indicated that their risk is average. About 23.2% knew people who are HIV positive and 11.3% had been tested for HIV. The sample also revealed 2.4% were HIV positive

and about 67.6% would not want to tell their partners their HIV positive status.

Attitudes Test Results

The attitudes test employs a Likert scale (ATAV) (5-point) with response options labeled from "Strongly disagree" to "Strongly agree". Each item scored from one to five with one corresponding to "Strongly disagree" and five corresponding to "Strongly agree". Point values for all answers were summed to provide the attitudes score. The possible range of attitudes scores is from 20 to 100 with 100 indicating the highest positive attitudes and 20 indicating the lowest. The attitudes scores are shown in Table 5. The means and standard deviations of the individual items of the ATAV scale are also presented (see Appendix C).

TABLE 5. RESPONSES ON STUDENTS' ATTITUDES TOWARDS PEOPLE WITH AIDS

Statement	Acceptance ^a		No Acceptance ^b		No Opinion	
	N	%	N	%	N	%
a. People with AIDS represent a forgotten part of our society*	68	23.2	181	61.8	39	13.3
b. More media coverage should be given to the plight of people with AIDS	255	87	20	6.8	12	4.1
c. I would avoid someone if I knew they had AIDS*	32	10.9	143	48.8	114	38.9
d. People with AIDS should be grouped together and isolated*	59	20.8	146	49.8	82	28
e. People with AIDS are dangerous to allow in public*	41	14.0	194	66.3	53	18.1
f. People with AIDS are a menace to society*	84	28.7	136	46.4	68	23.2
g. I would work alongside someone I knew had AIDS	79	27.0	61	20.8	147	50.2
h. People with AIDS should be allowed to attend public school	180	61.4	30	10.2	77	26.3
i. I would offer whatever support necessary if a friend had AIDS	247	84.3	14	4.8	26	8.9
j. I would be worried for my health if a co-worker had AIDS	131	44.8	84	28.7	74	25.3
k. I would open up my house to anyone with AIDS	95	32.4	56	19.1	138	47.1
l. I would not want a person with AIDS to touch me*	62	21.2	148	54	70	23.9
m. I avoid people with AIDS*	81	27.6	130	42.3	82	28
n. People with AIDS are probably leading promiscuous lives	109	37.2	131	44.7	47	16

TABLE 5. (CONT'D)

Statement	Acceptance ^a		No Acceptance ^b		No Opinion	
	N	%	N	%	N	%
o. I feel no sympathy for someone with AIDS*	21	7.2	231	78.8	36	12.3
p. I wouldn't mind if one of my child's classmates had AIDS	153	52.2	46	15.7	90	30.7
q. I would frequent a business which employed people with AIDS	172	58.7	52	17.8	65	22.2
r. If someone gets AIDS, they should be allowed to continue living as normally as possible	237	80.9	22	7.6	30	10.2
s. I would not associate with a person who had AIDS*	15	5.1	232	79.1	42	14.3
t. I would probably not embrace someone with AIDS*	66	22.5	117	40	106	36.2

a). Acceptance refers to Agree and Agree Strongly with the items.

b). No Acceptance refers to Disagree and Disagree Strongly with the item.

* Score reversal is needed for analysis.

Attitudinal scores ranged from 40 to 99 out of a possible 100 (low) to 100 (high) point. The mean score for all respondents was 70.8, the minimum score was 40, and the maximum score was 99. The score point value ranged from 2 to 4.95 out of a possible 1 (low) to 5 (high). The mean point value was 3.54.

The items that most participants agreed with were, "I would offer whatever support necessary if a friend had AIDS (84.3%)" and "If someone gets AIDS they should be allowed to continue living as normally as possible (80.9%)". The items that most disagreed with were, "I would not associate with a

person who had AIDS (79.1%)", and "I feel no sympathy for someone with AIDS (78.8%)". The respondents showed low score responses in the followings items, "I would work along-side someone I knew had AIDS (27%)", and "I would be worried for my health if a co-worker had AIDS (44.8%)", "I would open up my house to any one with AIDS (32.4%)". The respondents showed higher responses on "People with AIDS should be allowed to attend public school (61.4%)", but lower on "I would not mind if one of my child's classmate had AIDS (52.2%)". Also, lower responses were found in the following items, "I would not want a person with AIDS to touch me (54%)", "I avoid people with AIDS (42.3%)" and "I would probably not embrace someone with AIDS (40%)".

Knowledge Test Results

Students were asked to indicate by a circle whether they thought the statement was true or false. Table 6 indicates correct responses on each item.

TABLE 6. CORRECT RESPONSES OF STUDENTS' KNOWLEDGE ABOUT AIDS

Statement	Correct	
	N	%
a. Use of condom during intercourse is likely to prevent the transmission of the Human Immunodeficiency Virus*	221	75.4
b. HIV can be present in vaginal fluid*	258	88.1
c. Unprotected heterosexual intercourse carries a risk of transmitting HIV from a man to a woman*	248	84.6
d. Unprotected heterosexual intercourse carries a risk of transmitting HIV from a woman to a man*	239	81.6
e. HIV can be transmitted by anal intercourse*	247	84.3
f. HIV can be transmitted in semen*	261	89.1
g. A person can contract HIV through oral-genital sex*	185	63
h. Receiving a blood transfusion with infected blood can give a person HIV*	278	94.9
i. You can get HIV by sharing a needle with a drug user who has the disease*	272	92.8
j. You can tell a person has AIDS by looking at him or her**	274	93.5
k. HIV can be spread by using someone else's comb or hairbrush**	247	84.3
l. AIDS is a medical condition in which the body has a difficult time fighting off infection*	260	88.7
m. You can get HIV from casual contact (such as shaking hand, coughing, using the same telephone or toilet seat) with people who have the disease**	260	88.7
n. Some babies born to mothers with HIV will test positive even after developing their own immune system*	228	77.8
o. Stress causes HIV**	267	91.1
p. If you kiss someone with HIV, you will get the disease**	227	77.5
q The majority of gay men in the world have HIV**	85	29

TABLE 6. (CONT'D)

Statement	Correct	
	N	%
r. If you touch someone with HIV without exchanging bodily fluids you can get HIV**	181	61.8
s. What you eat can give you HIV**	266	90.8
t. HIV can be cured**	259	88.4
u. HIV is not at all serious, it is like having a cold**	266	90.8
v. AIDS is caused by bacteria**	269	91.8
w. People can avoid getting HIV by exercising regularly**	215	73.4
x Having unprotected sexual intercourse with someone who has HIV is one way of getting it*	262	89.4
y. The majority of people with HIV have died from the disease within 10 years of being diagnosed*	170	58.0
z. The majority of lesbian women have HIV**	165	63.1
aa. People with AIDS usually develop diseases as a result of their deficient immune system*	268	91.5
bb. AIDS is caused by the same bacteria that causes gonorrhea**	210	71.7
cc You can get HIV from sharing plates, forks, or glasses with someone who has HIV**	260	88.7
dd. There is a vaccine available which prevents HIV**	248	84.6
ee. You can get AIDS from mosquitoes, flies, ants**	255	87.0
ff. If you swim in a pool with someone who has AIDS, you will get the disease**	266	90.8
gg. A person who is infected can infect others, even if no symptoms are present*	235	80.2
hh. Sharing needles or syringes, even once, is a very easy way to be infected by HIV*	200	68.3
ii. HIV can enter the bloodstream through cuts on tissue in the vagina, penis or rectum*	265	90.4
jj. Birth control pills protect against HIV**	272	92.8
kk. The AIDS virus makes a person's body unable to protect itself from diseases that rarely effect healthy people*	260	88.7

* "True" is correct answer. ** "False" is correct answer

There were 37 items in the questionnaire used to test the knowledge of respondents about AIDS. Each of these 37 items were coded as "0" if incorrect and "1" if correct for each respondent. The scores for the items were then summed for each respondent. The knowledge mean score for all subjects was 83.5 out of a possible maximum score of 100. Scores ranged from a low of 35.4 to a high of 100. Many questions answered correctly by the greater majority of students pertain to the transmission of AIDS by the three medically documented modes: (a) item h, contaminated blood (94.9%), (b) item c, unprotected sexual intercourse and other sexual contact (84.6%), and (c), item n, parental infection through a women infected with the HIV virus (77.8%).

The question that was least frequently answered correctly by indicating a "False" response was (a) item q, "The majority of gay men in the world have HIV" (29%), (b) Item r, "If you touch someone with HIV with out exchanging bodily fluids you can get HIV "(61.8%), (c) Item z, "The majority of lesbian women have HIV" (63%). Other questions where only 58-63% of the sample answered correctly by indicating a "True" response were, (a) Item g, "A person can contract HIV through oral-genital sex (63%), (b) Item y, "The majority of people with HIV had died from the disease within 10 years of being diagnosed "(58.0%).

Responses on Communication with Potential Sexual Partners

Thirteen statements with very unlikely, somewhat unlikely, somewhat likely, and very likely response categories were utilized to investigate students' communication patterns with potential sexual partners. The response results are presented in Table 7.

TABLE 7. STUDENTS' RESPONSE TO COMMUNICATION WITH POTENTIAL SEXUAL PARTNERS

Statement	Very Unlikely		Somewhat Unlikely		Somewhat Likely		Very Likely	
	N	%	N	%	N	%	N	%
	a. Ask how many sexual partners he/she has had	31	10.6	32	10.9	121	41.3	76
b. Discuss using a condom before having sex	9	3.1	15	5.1	127	43.3	108	36.9
c. Ask if he/she has used drugs intravenously	21	7.2	47	16.0	102	34.8	90	30.7
d. Ask if he/she has had a sexual relationship with an intravenous drug user	30	10.2	49	16.7	100	34.1	79	27.0
e. Try to guess if he/she has been exposed to AIDS	16	5.5	33	11.3	109	37.2	99	33.8
f. Ask if he/she has been exposed to AIDS	16	5.5	38	13.0	124	42.3	79	27.0

TABLE 7. (CON'D)

Statement	Very Unlikely		Somewhat Unlikely		Somewhat Likely		Very Likely	
	N	%	N	%	N	%	N	%
	g. Keep a condom in my wallet or purse	64	21.8	64	21.8	82	28.0	45
h. Have both of us tested for AIDS	15	5.1	27	9.2	100	34.1	116	39.6
i. Ask to have a monogamous relationship	14	4.8	32	10.9	83	28.3	125	42.7
j. Take fewer precautions with someone who seems like the kind of person who would not be infected	95	32.4	60	20.5	70	23.9	34	10.9
k. Ask if the person has had a sexual relationship with a gay man	23	7.8	59	20.1	99	33.8	74	25.3
l. Ask the person if they have been tested for AIDS	10	3.4	35	11.9	109	37.2	103	35.2
m. Insist on using a condom when having intercourse	8	2.7	40	13.7	120	41.0	88	30.0

Data from Table 7 indicates that only 25.9% were very likely to ask a new sexual partner, prior to sexual intercourse, how many previous partners they had. And, only 36.9% of the students were very likely to discuss using a condom with a new partner before having sexual intercourse for the first time. Only 30% would insist on using a condom

before having intercourse with a new partner. The findings also showed that 11% of the students were very likely to take fewer precautions with a new sexual partner who seemed like the kind of person who would not be infected. Less than half of the students (43.6%) were not somewhat and not very likely to keep a condom in a wallet or purse and the majority (71%) of the students were somewhat and very likely to try to guess if he/she has been exposed to AIDS. In addition, about half (59%) of these students were somewhat or very likely to ask if a new partner has had a sexual relationship with a gay man.

Specific Sexual Activity

TABLE. 8 STUDENTS' RESPONSE TO SPECIFIC SEXUAL ACTIVITY

Specific Sexual Activity	Activity Acceptance			
	Yes		No	
	N	%	N	%
a. Kissing to a cheek	254	86.7	17	5.8
b. Wet kissing (French kissing)	159	54.3	107	36.5
c. Give or received body massage	226	77.1	40	13.7
d. Hugged and cuddled	253	86.3	17	5.8
e. You masturbated a partner with your hand	113	38.6	150	51.2
f. A partner masturbated you with his/her hand	104	35.5	159	54.3
g. Performed oral sex on a partner	68	23.2	195	66.6
h. Partner gave you oral sex	73	24.9	189	64.5

In regard to specific sexual activities (Table 8), a little more than half (54.3%) of the students reported that they could participate in wet kissing, while a majority (66.6% and 64.5%) of them revealed that they did not want to participate in oral sexual activity. However, 23.2% performed oral sexual intercourse on a partner and 24.9% allowed their partners to give them oral sex.

Findings Related To The Hypotheses

There were five (5) hypotheses developed for this study. These hypotheses are discussed in this section.

Hypothesis 1

H₀₁-- There is no relationship between students' attitudes about AIDS and risky sexual behavior.

A Pearson Product Moment Correlation was performed on the total attitudes score and the risky sexual behavior of wet kissing and oral sex (question 10) to indicate their relationship. The finding revealed no correlation ($P=.282$) (see Table 9).

TABLE 9. CORRELATIONS BETWEEN ATTITUDES TOWARDS PEOPLE WITH AIDS AND RISKY SEXUAL BEHAVIOR IN QUESTION (WET KISSING AND ORAL SEX)

Target Group	Knowledge	Risky Behavior
Knowledge	---	---
Risky Behavior	.0358* p=.282	---

* not significant at .05

Analysis of variance was employed to identify the relationship between students' attitudes about AIDS and risky behavior regarding the changes in sexual behavior due to awareness of AIDS (question 11). The results showed that, numerically, the people who were more sexually active (have more sexual partners) have lower attitudes score, but statistically, there is no different between variables (Table 9). As a result of these data the null hypothesis was accepted.

TABLE 10. ANALYSIS OF VARIANCE COMPARING ATTITUDES TOWARDS PEOPLE WITH AIDS AND RISKY SEXUAL BEHAVIOR**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	R Prob.
Between Groups	2	.7813	.3906	1.2067	.3087*
Within Groups	45	14.5673	.3237		
Total	47	15.3486			

*not significant at .05

** Risky sexual behavior in this table refers to changes in sexual behavior in question 11 (No change in sexual behavior, have fewer partners, have more partners.)

Hypothesis 2

HO₂--There is no relationship between students' knowledge about AIDS and risky sexual behavior.

Pearson Product Moment Correlation was utilized on the total knowledge score and the wet kissing and oral sex questions. No correlation was found between student knowledge and these risky behaviors ($p=.299$) (see Table 11).

TABLE 11. CORRELATIONS BETWEEN KNOWLEDGE OF AIDS AND RISKY SEXUAL BEHAVIOR IN QUESTION (WET KISSING AND ORAL SEX)

Target Group	Knowledge	Risky Behavior
Knowledge	---	---
Risky Behavior	.0328* $p=.299$	---

* not significant at .05

Analysis of Variance was also employed to identify the relationship between Knowledge and risky sexual behavior on the changes in sexual behaviors due to awareness of AIDS in question 11. The results showed that numerically, students who had increased sexual partners had lower mean scores in AIDS knowledge than students who revealed no change and had fewer sexual partners. But statistically, there is no difference between variables (Table 12). As a result of this study the null hypothesis was accepted.

TABLE 12. ANALYSIS OF VARIANCE COMPARING KNOWLEDGE OF AIDS AND RISKY SEXUAL BEHAVIOR**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	R Prob.
Between Groups	2	707.3056	353.6528	1.6217	.2086*
Within Groups	46	10031.3536	218.0729		
Total	48	10738.6592			

*not significant at .05

** Risky sexual behavior in this table refers to changes in sexual behavior in question 11 (No change in sexual behavior, have fewer partners, have more partners.)

Hypothesis 3

HO₃ --There is no difference between male and female students with respect to their attitudes towards people with AIDS.

A t-test was performed on the total attitudes score. The findings in Table 13 indicated that females had a lower mean score on the attitude questions test than males with a p value of .016, well below the .05 significant level. As a result of these data the null hypothesis was rejected.

TABLE 13 T-TEST CORRELATING GENDER AND ATTITUDES TOWARDS PEOPLE WITH AIDS

Male (N = 74)		Female (N = 202)		T-test	P-value
Mean	S.D.	Mean	S.D.		
3.67	.53	3.60	.49	2.34	.016*

* Significant at .05

Hypothesis 4

HO₄ --There is no difference between male and female students with respect to their knowledge about AIDS.

A t-test was performed on the total knowledge score. The findings in Table 14 showed no significant difference (p=.781). As a result of these data, the null hypothesis was retained.

TABLE 14. T-TEST CORRELATING GENDER AND KNOWLEDGE OF AIDS

Male (N = 74)		Female (N = 202)		T-test	P-value
Mean	S.D.	Mean	S.D.		
83.38	12.94	83.84	9.27	-.28	.781*

* Not significant at .05

However, in looking at individual items, the followings items showed significant difference at .05 (Table 15-19).

TABLE 15. CHI-SQUARE TEST ON SELECTED KNOWLEDGE ITEM* CORRELATING WITH GENDER

Knowledge	Male		Female	
	N	%	N	%
Correct	57	77.0	182	89.2
Incorrect	17	23.0	22	10.8

p=.010 significant at .05 level

*Item c, unprotected heterosexual carries a risk of transmitting HIV from a man to a woman.

**TABLE 16. CHI-SQUARE TEST ON SELECTED KNOWLEDGE ITEM*
CORRELATING WITH GENDER**

Knowledge	Male		Female	
	N	%	N	%
Correct	55	74.3	174	85.7
Incorrect	19	25.7	29	14.3

p=.027 significant at .05

*Item d, unprotected heterosexual intercourse carries a risk of transmitting HIV from a woman to a man.

**TABLE 17. CHI-SQUARE TEST ON SELECTED KNOWLEDGE ITEM*
CORRELATING WITH GENDER**

Response	Male		Female	
	N	%	N	%
Correct	29	39.2	51	25.1
Incorrect	45	60.8	152	74.9

p=.022 significant at .05 level

*Item q, The majority of gay men in the world have HIV.

**TABLE 18. CHI-SQUARE TEST ON SELECTED KNOWLEDGE ITEM*
CORRELATING WITH GENDER**

Response	Male		Female	
	N	%	N	%
Correct	65	87.8	193	95.1
Incorrect	9	12.2	10	4.9

p=.035 significant at .05 level

*Item s, what you eat can give you HIV.

**TABLE 19. CHI-SQUARE TEST ON SELECTED KNOWLEDGE ITEM*
CORRELATING WITH GENDER**

Knowledge	Male		Female	
	N	%	N	%
Correct	67	90.5	197	97.0
Incorrect	7	9.5	6	3.0

p=.024 significant at .05 level

*Item jj, Birth control pills protect against HIV.

Hypothesis 5

HO₅ --There is no difference between males and females students in communicating with prospective partners about risky behavior.

T-test were used to determine the difference between gender regarding communication with prospective partners about risky behavior.

The results showed significant difference at the .05 with a p-value of .000, well below the .05 significant level. The data indicated that more females than males were likely to use communication patterns. One individual item found significantly different, indicated that males were more likely to keep a condom in their wallet. As a result of this data the null hypothesis was rejected (see Table 20-Table 21).

TABLE 20. T-TESTS CORRELATING COMMUNICATION PATTERNS AND GENDER

Likely & Very Likely				T-test	P-value
Male (N = 74)		Female (N = 202)			
Mean	S.D.	Mean	S.D.		
2.54	.49	2.78	.46	-3.79	.000*

* Significant at .05

**TABLE 21. T-TEST CORRELATING INDIVIDUAL ITEMS ON
COMMUNICATION PATTERNS AND GENDER**

Statements	Likely & Very Likely				P-Value
	Male		Female		
	N	%	N	%	
a. Ask how many sexual partners he/she has had	16	22.2	57	31.1	S*
b. Discuss using a condom before having sexual intercourse	29	39.7	77	42.5	NS**
c. Ask if he/she has used drugs intravenously (with a needle)	18	24.7	70	38.5	S*
d. Ask if he/she has had a sexual relationship with an intravenous drug user	13	18.1	64	35.4	S*
e. Try to guess if he/she has been exposed to AIDS	22	30.6	75	41.7	NS**
f. Ask if he/she has been exposed to AIDS	12	16.7	65	36.1	S*
g. Keep a condom in my wallet or purse	16	21.9	27	15.3	NS**
h. Have both of us tested for AIDS	17	23.3	97	53.9	S*
i. Ask to have a monogamous relationship	29	40.3	93	52.5	S*
j. Take fewer precautions with someone who seems like the kind of person who would not be infected	11	15.1	20	11.2	NS**
k. Ask if the person has had a sexual relationship with a gay man	16	22.2	57	31.8	S*
l. Ask the person if they have been tested for AIDS	16	21.9	85	47.2	S*
m. Insist on using a condom when having intercourse	19	26.0	67	37.4	S*

*Significant at .05

**Not significant

Additional Factors

This section of the chapter will demonstrate the results of other factors that could have potential effects on students' attitudes, knowledge, and behavior regarding AIDS.

A one way analysis of variance was performed to determine the effects of level of education, family yearly income, and living arrangements. The results are shown below.

Level of Education

A chi-square test was used to determine the significant differences among the level of education with respect to risky behaviors regarding wet kissing, oral sex, changes in sexual activities, changes in sexual behavior, and having fewer or more sexual partners. The results revealed no significant differences. A one way analysis of variance was utilized to determine if there were significant differences in the level of education with respect to students' attitudes towards people with AIDS. The result showed significant differences ($p=.029$) (see Appendix D). With respect to the knowledge of AIDS, no significant differences were found between the levels of education.

Family income

A one-way analysis of variance was employed to determine the effect of parental income regarding attitudes and knowledge about AIDS. No significant differences were found at .05 level with respect to attitudes ($p=.555$) and knowledge ($p=.387$).

With regard to risky behavior, a chi-square analysis was used to test significant differences at the .05 level. The results showed no significant differences in risky sexual behavior in relation to wet kissing and oral sex in question 10 ($p=.379$), and no changes in sexual behavior, have fewer sexual partners, and have more sexual partners in question 11 ($p=.089$).

Living arrangement

Analysis of variance was run to determine the effects of living arrangement on attitudes, knowledge, and risky sexual behavior. Significance was not found at the .05 level with respect to attitudes ($p=.574$), and knowledge ($p=.193$), indicating that there were no significant differences in living arrangements on level of knowledge and attitude. However, results revealed significant differences ($p=.042$) related to risky behavior regarding wet kissing and oral sex in question 10 (see Appendix E). To locate where the differences in mean occurred, the Newman-Keuls multiple comparison test was used (see Appendix F). The results showed that living alone and living with spouse and opposite

sex have a higher risk score than those living with the roommate.

Belief

A set of nine statements with agree, agree strongly, no opinion, disagree and disagree strongly were utilized to investigate the students' beliefs about AIDS in relationship to themselves. Each statement was assessed individually (see Appendix G). About 80% of the students agreed with the belief statement "I am afraid of getting AIDS". However, only 69.1% of the students agreed with the statement "I am not likely to get AIDS", and 23.9% showed no opinion. A greater majority agreed with the statement, "I'm willing to refrain from unsafe sexual activity that might expose me to AIDS (82.2%)", and "It is important that students learn about AIDS in college (84%)."

Sources of AIDS Information

With respect to sources of information. The most common sources of information were television or radio, newspapers, books or magazines. Only some indicated school classes as a source of knowledge (see Appendix H).

Respondents' Personal Feedback

Respondents had the opportunity to comment on their feeling about AIDS on the last page of the questionnaire. Only thirty-three subjects wrote their comments which are reflected in Appendix I.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter contains three sections. The first section includes a synopsis and purposes of the study, including the procedures used for obtaining the data. The second section presents a summary of the findings based on the statistical analyses described in chapter IV. The third covers the conclusions, relates it to the literature, and makes recommendations for each conclusion.

The purpose of this study was to assess the effects of knowledge and attitudes about AIDS on behavior among students of Chulalongkorn University, Faculty of Education, Bangkok, Thailand. Specific purposes were to : a) assess university students' knowledge and attitudes about AIDS, and their sexual behavior; b) ascertain whether accurate knowledge of AIDS and attitudes towards AIDS is related to sexual behavior; c) determine if sexual behaviors have altered as a result of AIDS awareness; d) determine if university students perceive themselves to be at risk for contracting AIDS; e) examine the relationship between demographic and sexual behavioral patterns of this target

population; f) determine gender differences in attitudes, knowledge and behavior.

The subjects consisted of undergraduate students of Chulalongkorn University, Faculty of Education. The respondents were randomly selected. The instrument used in this study was a standardized questionnaire, developed in parts by Gray and Saracino(1989) and Larsen(1988). The questionnaire included sections on attitudes towards people with AIDS, knowledge about AIDS, behaviors towards AIDS and demographic information. The surveys were completed between February 5, 1993 and March 25, 1993. Out of 300 questionnaires completed by the students, 293 usable questionnaires were returned, for a return rate of 99.3%.

The data obtained were analyzed by SPSS to provide descriptive information pertaining to university students of Chulalongkorn University and to provide evidence for the retainment or rejection of the hypotheses.

Summary of the Findings

Students Descriptive Information

The majority of respondents (69.3%) were female, and slightly more than half (52.6%) of all subjects identified themselves as heterosexual. The average age of respondents was 20.13 years old. Forty-three percent of the study were freshmen, 12% were sophomores, 8% were juniors and 37% were

seniors. Ninety percent of them were Buddhist and their parental income ranged between \$2,000-\$10,000.

This study revealed that 38% of the students feel uncomfortable when talking about sexual topics. Their sources of AIDS information were usually television, and radio (62.5%), while only 9.6% obtained information in school. With awareness of AIDS, 3.4% were having more sexual partners, and 1% used more drugs. Only 1% of the study accepted that their risks of getting AIDS is high, while 45% indicated that their risks of getting AIDS is low and 41.6% indicated they are not at risk of getting AIDS. Yet, the data revealed that 2.4% (or 7 individuals) were HIV positive.

Attitudes Test Results

There were 20 items in the questionnaire which asked about the attitudes towards people with AIDS. Attitudinal scales (ATAV) ranged from a possible 20 (low) to 100 (high). Low scores show negative attitudes while high scores show positive attitudes. The mean score for all respondents was 70.8 [The score point value ranged from 2 to 4.95 out of a possible 1 (low) to 5 (high). The mean point value was 3.54. The items that most (80%) respondents agreed with were, 1) "I would offer what ever support necessary if a friend had AIDS,"; and 2) "If someone gets AIDS they should be allowed to continue living as normally as possible. "The items that most respondents (78%) disagreed with were, 1) "I

would not associate with a person who had AIDS", and 2) "I feel no sympathy for someone with AIDS. "The majority (61.4%) of subjects believed that "People with AIDS should be allowed to attend public school. "About half (52.2%) indicated that they would not mind if their child's classmate had AIDS. Only 27%, agreed that "I would work along side someone I knew had AIDS, "and nearly half (44.8%) agreed with the statement that "I would be worried for my health if a co-worker had AIDS". Only 32.4% agreed that "I would open up my house to any one with AIDS."

Belief

A set of nine statements were utilized to investigate students' beliefs about AIDS in relationship to themselves. The majority (80.9%) of the students agreed with the belief statement "I'm afraid of getting AIDS". However, almost 70% of the respondents agreed or strongly agreed with the statement that "I am not likely to get AIDS," while 24% did not express their opinion on this item. Yet, a greater majority (82.2%) either agreed or strongly agreed with the statement, "I am willing to refrain from unsafe sexual activity that might expose me to AIDS."

Knowledge Test Results

There were 37 items in the questionnaire which were used to test the knowledge of respondents about AIDS. Knowledge scores ranged from a low of 35.4 to a high of 100.

The mean score for all students was 83.5. The respondents' scored above 80% on 27 items of the knowledge questions. However, students were less knowledgeable in the following items : 1) Item a, "Use of condom during sexuals intercourse is likely to prevent transmission" (75.4%); 2) Item n, "Some babies born to mothers with HIV will test positive even after developing their own immune system" (77.8%); 3) Item p, "If you kiss someone with HIV, you will get the disease" (77.5%); 4) Item w, "People can avoid getting HIV by exercising regularly" (73.4%); 5) Item bb, "AIDS is caused by the same bacteria that causes gonorrhoea" (71.7%); 6) Item g, "A person can contract HIV through oral genital sex" (63%); 7) Item r, "If you touch someone with HIV without exchanging body fluids you can get HIV" (61.8%); 8) Item z, "The majority of lesbian women have HIV" (63.1%); 9) Item hh, "Sharing needles or syringes even once, is a very easy way to be infected by HIV" (68.3%); 10) Item y, "The majority of people with HIV have died from the disease within 10 years of being diagnosed" (58%); and 11) Item q, "The majority of gay men in the world have HIV" (29%).

Summary of the findings of the Hypotheses

Five hypotheses were developed and tested for this study. Pearson product moment correlation and a one way analysis of variance was employed to examine H_{01} and H_{02} . A

t-test was used to determine the difference effect of HO₃, HO₄, and HO₅.

HO₁--There was no relationship between students' attitudes towards people with AIDS and risky sexual behavior regarding wet kissing and oral sex and changes in sexual behavior.

HO₂--There was no relationship between students knowledge about AIDS and risky sexual behavior regarding wet kissing, oral sex and changes in sexual behavior.

HO₃--There was significant difference between male and female students with respect to attitudes toward people with AIDS. Females showed positive attitudes more than males.

HO₄--There was no significant difference with respect to total knowledge score of AIDS between males and females students.

HO₅--There was significant difference between males and females students in communicating with prospective partners, the data revealed females used more effective communication patterns than males.

Additional Factors

Other factors that could affect students' risky behavior were analyzed. Results indicated that there were no significant difference in the level of education, or parental income with respect to risky behavior. But, a significant difference was found between living arrangement and risky behaviors. The results showed that students who

live with roommates, those who live with a spouse and those who cohabit with a person of the opposite sex have a higher risk score than those who live alone and those who cohabit with a person of the same sex.

Discussion and Conclusion

Attitudes toward People with AIDS

The students who responded to the questionnaires demonstrated a sense of ambivalence between acceptance toward people with AIDS and their willingness to interact with such individuals on a personal basis. It appears that students' attitudes were more accepting when the issue did not involve personal interaction with someone who had AIDS. For instance, the majority of students agreed that a person with AIDS should be allowed to continue living as normally as possible and did not believe that people with AIDS should be isolated. However, it is important to note that only 27% of respondents agreed that they would work along side someone they knew had AIDS, and more than half (50.2%) did not want to offer their opinion.

The findings of this study are consistent with the findings of Taylor, (1990), which indicated that college students in the university of West Florida were uncertain in their sympathy when it came to letting people with HIV/AIDS remain in the military. But when it came to civilian employment, 50% did not believe that employers should

discriminate against employees with HIV/AIDS. When it came to one's own social or romantic life, a majority (70%) believed that HIV/AIDS had affected their social lives; yet, only 47% would not mind eating with people who had HIV/AIDS.

Some early studies in the U.S. also showed patterns of discrimination on the part of college students. In a study by Simkins and Kushner (1986), the results showed that college students had little concern about AIDS. Results from a study at the University of Rhode Island showed that 40% of the subjects expressed concern over AIDS and felt that it in some way affected their sexual behavior. This 1986 study in the U.S. seems to mirror the attitudes of Thai students in 1993.

In regard to gender, data from this study indicated that males were significantly more accepting than females in their attitudes towards people with AIDS. Gray & Saracino (1990) and Henry and Bradford (1990) reported inconsistency with the findings among college students. In a study of Henry and Bradford, fewer female subjects in their sample objected to working or going to school with HIV infected individuals compared to male subjects. In addition, Henry and Bradford pointed out that these findings are "more likely a reflection of anti-gay feelings rather than differences in anxiety about contracting AIDS". In the college study of Gray and Saracino, the mean attitudes score for female (70.80) was significantly higher than male, the authors were also speculated that similar anti-homosexual

and homophobic biases may account for the difference between males and females' attitudes toward people with AIDS.

This stigma against people with AIDS has also been found among health care professionals who are less willing to interact in any way with a person with AIDS than with a person with another life-threatening illness (Kelly & St. Lawrence, 1988). In fact, a substantial minority of the U.S. population have advocated that employers be allowed to fire workers with AIDS; parents withdraw their child from school to avoid a classmate with AIDS, and landlords have the right to evict PWAs (Blendon & Donelan, 1988).

Recommendations for Attitudes towards People with AIDS

Based on the results of this study, it is suggested that more effective AIDS education programs be developed to include strategies which target women especially in regard to acceptance of people with AIDS, and which target both men and women to reduce stigmatization.

AIDS experts advocate AIDS education programs to help reduce anxiety about AIDS and effect changes in attitudes. This recommendation assumes that knowledge is beneficial in reducing stigma. Education efforts should emphasize that the stigma and discrimination surrounding AIDS must be eliminated not just because of the resultant injustices but because negative attitudes and actions deter prevention efforts. Stigma and discrimination cause those who engage in risky behavior, to deny their risk and avoid counseling

and other educational efforts. Outreach to these individuals must be emphasized in AIDS education efforts.

Knowledge of AIDS

In general, students were knowledgeable about the three primary routes of AIDS transmission. But, 37% of the student did not know that a person can contract HIV through oral genital contact, and about 32% did not know that sharing needles or syringes even once is a very easy way to be infected by HIV. Also, 38.1% thought touching someone with HIV with out exchanging body fluids is dangerous; 36.1% did not know that a majority of lesbians do not have AIDS, and about 70% did not know that the majority of gay men in the world do not have AIDS.

Recommendations for Knowledge of AIDS

The present study indicates that students' knowledge is incomplete. Results from respondents' personal feed back revealed that students need to know more about AIDS information. Therefore continuing education about AIDS should be provided and emphasized on symptoms, causes, modes of transmission and methods of prevention.

Dispelling myth and prejudice needs to be challenged before information on AIDS will be acted upon. That certain groups are not responsible for AIDS and that AIDS is not restricted to these groups needs to be emphasized

for those who believe AIDS is a disease that strikes others, such as homosexuals and who use the illness as a reason for venting their prejudice toward these groups.

Beliefs about AIDS in Relation to Themselves

The majority of student (80%) agreed with the statement that "I am afraid of getting AIDS" but three-fourth of the respondents agreed with the belief statement that "I am not likely to get AIDS. This finding is consistent with the college study of Gray and Saracino (1990). This finding supports the tenet that young adults do not perceive themselves as being at risk for AIDS. They fail to personalize the risk of contracting AIDS. Three factors may contribute to this misconception. First, evidence suggests that most students have an illusion of invulnerability of developing AIDS (Edgar et al., 1988; Gottlieb et al., 1988; Sheehan et al., 1990). Second, students may underestimate their risk of contracting AIDS because of an optimism bias (Weinstein, 1987). Young adults overgeneralize from their health personal history and become optimistic about the future, believing that since they have not been seriously ill in the past, they are unlikely to become ill in the near future. Third, the epidemiological statistics in the past showed that AIDS is an illness that concentrated in male homosexuals and IV drug users (CDC, 1993; Hearst, 1988). Therefore in students' perception, AIDS is not relevant to women and heterosexuals. Also, the perceived negative

association that individuals have about these stigmatized groups may distance the students from the risks of contracting HIV. It appears likely that those individuals who express negative attitude toward homosexuality also display a greater prejudice toward people with AIDS.

It was found in the present study that more than half of the students who were participating in risky sexual behaviors disagreed with the statement that "AIDS does not concern me". Yet, they do not see themselves at risk for AIDS. This inconsistency points up the need for increased educational efforts.

Behaviors

Approximately 17% of the students reported they have had sexual intercourse. The age of their first sexual experience was between 15 and 20. Nine percent of respondents identified themselves as homosexual and bisexual. Slightly less than half (45%) reported that their risk of getting AIDS is low and about the same proportion (41%) implied that they are not at risk of getting AIDS. The most stark finding was that 2.4% (or 7) of the respondents were HIV positive.

In regard to communication patterns with prospective partners, only 25.9 percent were very likely to ask a new sexual partner how many sexual partners he/she has had. About 37% were very likely to discuss using a condom before having sexual intercourse, and 30% were very likely to

insist on using a condom when having intercourse. Twenty-seven percent were very likely to ask if he/she has been exposed to AIDS. Gender differences were found in regard to communication. Females were significantly more likely to ask prospective partners these questions. For example, females were more likely to ask if a potential partner has been exposed to AIDS, to guess if a potential partner had been exposed to AIDS, and very likely to ask for a monogamous relationship. However, analysis also revealed that more males than females were likely to carry a condom in their purse or wallet.

The reason that most students may not engage in safer sex practices is because they lack the necessary communication and technical skills (Baffi et al., 1989; Edgar et al., 1988; Fisher, 1984). They may be unwilling to discuss safer sex procedures with a sex partner out of fear that they may be categorized as bisexual or homosexual. Similarly, they may not wish to discuss sensitive issues with their potential sex partner by questioning the partner's heterosexuality, promiscuity, and use of IV drugs. They could also be embarrassed to discuss either safer sex or contraception. Technical skills could be lacking if students do not know how to use a condom or if they do not know how to practice safer-sex.

Recommendations for Beliefs and Behaviors

The findings demonstrated that respondents believe they are at low risk of contracting AIDS. In addition, more males than females are not using communication techniques with new potential partners.

AIDS education strategies should provide specific skills dealing with both the broaching of safer sex practices and the mechanics of condom use. While providing information on HIV and AIDS, the intervention should also have the participants identify the antecedents of high risk behaviors and discuss how these antecedents might be avoided. Role-playing sessions that enhance assertiveness in sexual situations should also be conducted. Additionally, male students should be particularly encouraged to develop social interaction that would encourage healthier sexual practices.

To develop a realistic risk perception for AIDS, it is recommended that: a) Individuals with AIDS and loved ones of people with AIDS should speak in classrooms to share their experiences, feelings, and views with students, and

b) people with AIDS who are not members of the two original "high risk groups," gay men and intravenous drug users, should also be included in classroom presentations.

As evidenced from the present study, communication about safer sexual behaviors is not usual for these students. Therefore, it is suggested that negotiation skills for discussing sexual options with partners be taught

in the classroom along with sexual decision-making strategies. In addition, it is important to be sensitive to the language used to communicate about AIDS. Risks associated with very specific sexual behaviors and clarification of sexual terminology should be explained. Lack of clarification of sexual terminology may results in the reluctance of students to identify with such terms as "sexually active" and "multiple partners,"

The findings revealed that there are HIV positive students in the institution, and students are engaging in risky sexual behavior. Therefore, counseling services should be provided as early as possible for students and staff who may have concerns about HIV. This counseling service should be located in the university health services or in the department of Applied Health Science or in the department of Psychology.

Recommendation for Source of AIDS Information

Television is currently the most frequent source of information about AIDS for students in Thailand. An agreement among media owners, program coordinators and AIDS specialists is needed in order to develop a few central themes and a coordinated approach to communicating.

Overall Recommendations

An AIDS education programs needs to be developed at Chulalongkorn University and should consider the following:

a). AIDS education should be integrated into sexuality education programs.

b). Sexuality education that is being offered in the faculty of education at undergraduate level should be a required course for all students from different faculty of Chulalongkorn university.

c). Programs should emphasize vulnerability and risks of HIV infection in addition to biomedical information.

d). Programs should be designed to reduce misconceptions about HIV and reduce the panic and anxiety associated with the disease.

e). Programs must provide ample opportunity for behavioral skills development.

f). AIDS education programs should be value-based.

g). AIDS education should be "sex positive".

h). AIDS education programs should emphasize that sexuality is a positive aspect of life and that genital activity is only one aspect of sexual behavior.

i). Young people should be helped to understand that positive sexuality means practicing responsible sexual behaviors, and this means waiting to have intercourse until they are older.

j). AIDS should not be portrayed as the inevitable result of risky behavior, because numerous studies have indicated that people's behaviors are not changed through fear arousal.

k). Young people should know that they can control their risk of exposure to HIV largely by their own decision-making. They can be helped to understand that it is their present and future behavior that will prevent their infection with HIV.

l). Negotiation skills for discussing sexual options with partners should be taught in the classroom along with sexual decision-making strategies.

m). Policies need to be implemented that allow for easy accessibility of condoms on the university campus.

n). University Counseling Services on AIDS should be implemented in the university.

o). AIDS education training program should be organized.

Recommendations for Further Research

1. In order to find out the clear patterns of knowledge and attitudes about AIDS and behavior among the university students, similar studies should be undertaken among university students from other geographical areas of Thailand and other faculties in Chulalongkorn University. More males should be surveyed because the literature shows that males are more sexually active than females (Kinsey, 1990).

2. A study to assess the relationship between risky sexual practices and variables that might affect these activities must be conducted among college and university

students in order to be better understand the causes for safer sexual practice among this population. This knowledge may be essential for understanding more about sexually active people who are at risk for contracting HIV and for determining the types of educational programs that are most useful in helping young adults learn to avoid risky sexual practices.

3. A study should be done to assess the knowledge and attitudes about AIDS among health/physical education teachers because many of these teachers may be ill-prepared to deliver accurate information about AIDS because their training programs tend to emphasize physical education rather than health education.

4. A study of teaching methods and materials which help students realistically assess their risk for AIDS should be done.

5. A study of knowledge and attitudes about AIDS and their concerns about AIDS among parents should be conducted

Conclusions

It is clear that the subjects engaging in sexual behavior in this study are at risk for AIDS. Behavioral changes in sexual activity promoted by accurate AIDS education is very important to reduce the risk of AIDS infection. The necessary behavioral changes most likely will not occur without accurate education from effective sources. The results from this study clearly suggest that

Chulalongkorn University should include AIDS education in their education curriculum which include the following primary goals: 1) Programs should be designed to eliminate misinformation about HIV and to reduce the panic associated with the disease; 2) Programs should be designed to help young people delay premature sexual intercourse; 3) All undergraduate students should receive information and services so that they will use condoms each and every time they have any kind of intercourse; 4) AIDS education should warn young adult about the dangers of drug use; 5) AIDS education should encourage communication about safer sex; 6) AIDS education program should encourage compassion for people with AIDS and those infected with HIV. 7) Considering the life and death issue that AIDS presents, policies which allow for easy accessibility of condoms on university campuses should be instituted; 8) University counseling services on AIDS should be provided for students and staff who may be HIV infected or have concerns about HIV; and 9) Chulalongkorn University, Faculty of Education should develop and implement an AIDS training program.

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APPENDICES

Appendix A.**Questionnaire (English Version)****Survey on HIV/AIDS
at Chulalongkorn University
Bangkok, Thailand**

The questions utilized in this survey were adopted from
instruments developed by:

Larsen, K.S.

Long E. & Serra, M.

DiClemente, R.J.

Zorn, J. & Temoshok, L.

Stall, R. & McKusick, L.

The survey was initially developed by
Gray, L.A. and Saraceno, M. in 1988

It was revised by
Gray, L.A. and Harding, A.K. 1990

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University Students Survey on AIDS

Please answer the following question (Circle one number)

1. (1.1) What do you feel when talking about sex topic?
 1. Feeling the same as talking about other topic
 2. Feeling uncomfortable
 3. Feeling of embarrassment
- (1.2) Have you ever talk to other people about AIDS?
 1. Yes, I often talk to other people about AIDS
 2. No, I never talk to other people about AIDS

2. Please indicate how much you have learned about AIDS from each of the following sources-a lot, some, a little or nothing. (Circle one number for each source)

Source	A Lot	Some	A Little	Nothing
a. TV or radio newscast				
b TV specials on AIDS				
c. Newspaper, books, magazines				
d. School classes				
e. Health professionals				
f. Family members				
g. Friends and classmates				
h. Other (Specify)--				

3. Below is a list of statements that have been made about AIDS or people with AIDS. We are interested in the extent to which you agree or disagree with the statements. First impression are usually best. Please indicate if you disagree strongly, disagree, have no opinion, agree or agree strongly with each. (Circle one number for each statement).

Statement	Disagree Strongly	Disagree	No Opinion	Agree	Agree Strongly
a. People with AIDS represent a forgotten part of our society					
b. More media coverage should be given to the plight of people with AIDS					
c. I would avoid someone if I knew they had AIDS					
d. People with AIDS should be grouped together and isolated					

Statement	Disagree Strongly	Disagree	No Opinion	Agree	Agree Strongly
e. People with AIDS are dangerous to allow in public					
f. People with AIDS are a menace to society					
g. I would work alongside someone I knew had AIDS					
h. People with AIDS should be allowed to attend public school					
i. I would offer whatever support necessary if a friend had AIDS					
j. I would be worried for my health if a co-worker had AIDS					
k. I would open up my house to anyone with AIDS					
l. I would not want a person with AIDS to touch me					
m. I avoid people with AIDS					
n. People with AIDS are probably leading promiscuous lives					
o. I feel no sympathy for someone with AIDS					
p. I wouldn't mind if one of my child's classmates had AIDS					
q. I would frequent a business which employed people with AIDS					
r. If someone gets AIDS, they should be allowed to continue living as normally as possible					
s. I would not associate with a person who had AIDS					
t. I would probably not embrace someone with AIDS					

4. A few more statements about AIDS are listed below. For each of these, please indicate whether you agree, don't know or disagree. (Circle one number for each)

Statement	Disagree Strongly	Disagree	No Opinion	Agree	Agree Strongly
a. I am afraid of getting AIDS					
b. I have heard enough about AIDS and I don't want to here any more about it					
c. I am not likely to get AIDS					
d. If a free blood test was available to see if a person has the AIDS virus, I would take it					
e. I'd rather get any other disease than AIDS					
f. It is important that students learn about AIDS in college class					
g. I am willing to use latex condoms during sex					
h. I am willing to refrain from unsafe sexual activity that might expose me to AIDS					
i. AIDS does not concern me					

5. Please circle number (1) if you think the statement is correct, but if you think the statement is wrong regarding AIDS please circle number (2).

Statement	True	False
a. Use of condom during intercourse is likely to prevent the transmission of the Human Immunodeficiency Virus		
b. HIV can be present in vaginal fluid		
c. Unprotected heterosexual intercourse carries a risk of transmitting HIV from a man to a woman		
d. Unprotected heterosexual intercourse carries a risk of transmitting HIV from a woman to a man		
e. HIV can be transmitted by anal intercourse		
f. HIV can be transmitted in semen		
g. A person can contract HIV through oral-genital sex		
h. Receiving a blood transfusion with infected blood can give a person HIV		
i. You can get HIV by sharing a needle with a drug user who has the disease		
j. You can tell a person has AIDS by looking at him or her		
k. HIV can be spread by using someone else's comb or hairbrush		
l. AIDS is a medical condition in which the body has a difficult time fighting off infection		
m. You can get HIV from casual contact (such as shaking hand, coughing, using the same telephone or toilet seat) with people who have the disease		
n. Some babies born to mothers with HIV will test positive even after developing their own immune system		
o. Stress causes HIV		
p. If you kiss someone with HIV, you will get the disease		
q. The majority of gay men in the world have HIV		
r. If you touch someone with HIV without exchanging bodily fluids you can get HIV		
s. What you eat can give you HIV		
t. HIV can be cured		
u. HIV is not at all serious, it is like having a cold		
v. AIDS is caused by bacteria		
w. People can avoid getting HIV by exercising regularly		
x. Having unprotected sexual intercourse with someone who has HIV is one way of getting it		
y. The majority of people with HIV have died from the disease within 10 years of being diagnosed		
z. The majority of lesbian women have HIV		
aa. People with AIDS usually develop diseases as a result of their deficient immune system		
bb. AIDS is caused by the same bacteria that causes gonorrhea		
cc. You can get HIV from sharing plates, forks, or glasses with someone who has HIV		
dd. There is a vaccine available which prevents HIV		
ee. You can get AIDS from mosquitoes, flies, ants		

ff. If you swim in a pool with someone who has AIDS, you will get the disease		
gg. A person who is infected can infect others, even if no symptoms are present		
hh. Sharing needles or syringes, even once, is a very easy way to be infected by HIV		
ii. HIV can enter the bloodstream through cuts on tissue in the vagina, penis or rectum		
jj. Birth control pills protect against HIV		
kk. The AIDS virus makes a person's body unable to protect itself from diseases that rarely effect healthy people		

6. Have you ever had sexual intercourse?

1. No, never
2. Yes

(6.1) If yes, please indicate your sexual preference.

1. The same sex
2. The opposite sex
3. The same sex and sometimes opposite sex

(6.2) At what age do you begin to have sexual intercourse?

1. before 15
2. 15-20
3. 21-25
4. 26-30
5. Over 30

7. Would you describe yourself as heterosexual, bisexual or homosexual? (Circle one number).

1. Homosexual
2. Bisexual
- 3 Heterosexual

8. Are you worried about contracting AIDS from your sexual partner?

(Circle one number)

1. Yes, I am worried
2. No, I am not worried

9. Below is a list of some things you may not do when getting to know a new potential sex partner. Please indicate how likely it is you would do each of the following. (Circle one number for each)

Statements	Very Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely
a. Ask how many sexual partners he/she has had				
b. Discuss using a condom before having sexual intercourse				
c. Ask if he/she has used drugs intravenously (with a needle)				
d. Ask if he/she has had a sexual relationship with an intravenous drug user				
e. Try to guess if he/she has been exposed to AIDS				
f. Ask if he/she has been exposed to AIDS				
g. Keep a condom in my wallet or purse				
h. Have both of us tested for AIDS				
i. Ask to have a monogamous relationship				
j. Take fewer precautions with someone who seems like the kind of person who would not be infected				
k. Ask if the person has had a sexual relationship with a gay man				
l. Ask the person if they have been tested for AIDS				
m. Insist on using a condom when having intercourse				

10. For the specific sexual activities listed below, please indicate whether or not you can participated in the activities. Circle number 1 if you can participate, and circle number 2 if you can not participate.

Specific Sexual Activities	Yes	No
a. Kissing to a cheek		
b. Wet kissing (French kissing)		
c. Give or received body massage		
d. Hugged and cuddled		
e. You masturbated a partner with your hand		
f. A partner masturbated you with his/her hand		
g. Performed oral sex on a partner		
h. Partner gave you oral sex		

11. Due to awareness of AIDS, which statement best describes how your sexual activity has changed or not changed in the last year. (Circle one number)

1. My sexual activities have remained the same
2. I have had fewer sexual encounters
3. I have had more sexual encounters
4. I am not sexually active

12. Due to awareness of AIDS, which statement best describe how your IV drug use has changed or not changed in the last year (Circle one number)

1. My drug use has remained the same
2. I have had fewer drug uses
3. I have had more drug uses
4. I do not use drug

13. Please indicate whether or not you have ever had any of the following health conditions. (Circle one number for each)

Health Conditions	Yes, Have Had	No, Have Not
a. Syphilis		
b. Any form of Gonorrhea		
c. Hepatitis B		
d. Non-specific or non-gonococcal urethritis		
e. Chlamydia		
f. Genital Herpes		

14. We would like to know how much contact you have had with people who either now have HIV/AIDS or have died of AIDS.

a. Do you know any people who have HIV/AIDS that you consider to be friend? (e.g. you see (saw) or talked to at least once a month)	Yes	No
b. Do you know any people who have HIV/AIDS that you consider to be acquaintances? (e. g. people you see or talk to less than once a month)	Yes	No
c. In the past two years have you personally seen someone in the advanced stages of AIDS?	Yes	No
d. In the past two years have you seen someone in the advanced stages of AIDS in the media, such that you can remember the image well?	Yes	No
e. Do you know someone personally who has died from AIDS?	Yes	No

15. What do you believe is your own personal risk of getting AIDS?
(Circle one number)

1. My risk of getting AIDS is high
2. My risk of getting AIDS is average
3. My risk of getting AIDS is low
4. I am not at risk of getting

16. Do you know any people who have had the blood test for HIV.

1. Yes
2. No

17. Have you ever been tested for the AIDS virus antibody?

1. Yes
2. No

18. If you have been tested for the AIDS virus antibody, was the test negative, positive, haven' t you gotten the results or you do not want to answer. (Circle one number)

1. The test was negative
2. The test was positive
3. I have not gotten the results
4. I don' t wish to answer

19. If your test for HIV/AIDS is positive will you tell your partner?

1. Yes, I will
2. No, I won' t

20. Do you believe that you have been exposed to the AIDS virus (HIV)?
(Circle one number)
1. No, I don' t believe I have been exposed
 2. I don' t know
 3. Yes, I believe I have been exposed to the AIDS virus
21. What is your current class standing ? (Circle one number)
1. Freshman
 2. Sophomore
 3. Junior
 4. Senior
22. Which one of the following best describes your housing this term?
(Circle one number)
1. Dorm
 2. Relative' s home
 3. Your own house
 4. Apartment, Flat, or renting a house
 5. Others
23. What is your marital status? (Circle one number)
1. Single
 2. Married
24. Which of the following best describes your living arrangements this term? (Circle one number)
1. Living with spouse
 2. Cohabitation with partner of the opposite sex
 3. Living with roommate (s)
 4. Live alone
 5. Cohabitation with partner of the same sex
 6. Others (Specify)-----
25. What was your age on your last birth day?-----Age.
26. Are you: (Circle one number)
1. Male
 2. Female
27. Which one of the following best describes your ethnic background?
(Circle one number)
1. Northern Thailand
 2. Central Thailand
 3. Southern Thailand
 4. North-Eastern Thailand

28. What would you say was your family's yearly household income while you were growing up? (Circle one number)

1. < 50,000 Baht
2. 50,000 - 250,000 Baht
3. 250,000 - 500,000 Baht
4. 500,00.- 1,000,000 Baht
5. 1,000,000 -1,500,000 Baht
6. > 1,500,000 Baht

29. With what religious preference, if any, were you raised? (Circle one number)

1. None
2. Catholic
3. Protestant
4. Other Christian (Non-denomination)
5. Buddhism
6. Islam
7. Other-----

30. What, if any, is your religious preference now? (Circle one number)

1. None
2. Catholic
3. Protestant
4. Other Christian (Non -denominational)
5. Buddhism
6. Islam
7. Other-----

31. Have you any concerns or remarks you would like to make about AIDS on this questionnaire?-----

THANK YOU FOR YOUR COOPERATION

Appendix B
Questionnaire (Thai Version)

๗ กุมภาพันธ์ ๒๕๖๖

นิสิตนักศึกษาที่รัก

ปัจจุบันนี้โรคเอดส์ กำลังเป็นปัญหาสาธารณสุขที่สำคัญของโลกและของทวีปเอเชียตะวันออกเฉียงใต้โดยเฉพาะประเทศไทย การวิจัยเกี่ยวกับความรู้ทัศนคติ และพฤติกรรมที่เกี่ยวข้องกับโรคเอดส์ จะเป็นประโยชน์ในด้านการค้นหาการป้องกันอย่างมีประสิทธิภาพ ผู้วิจัยใคร่ขอความร่วมมือ ให้นิสิตตอบแบบสอบถามที่แนบมาด้วย โดยนิสิตไม่ต้องเขียนชื่อหรือนามสกุลลงในแบบสอบถาม

ผู้วิจัยหวังเป็นอย่างยิ่งในความร่วมมือจากนิสิตทุกท่าน ในการตอบแบบสอบถาม ผลของการวิจัยครั้งนี้ จะเป็นประโยชน์ต่อการจัดการเรียนการสอนในด้านการป้องกันโรคเอดส์ในมหาวิทยาลัย

ขอแสดงความนับถือ

Signature redacted for privacy.

(ทิพย์ศิริ กาญจนวาสิ)

ผู้ช่วยศาสตราจารย์ ทิพย์ศิริ กาญจนวาสิ

ภาควิชาพลศึกษา สาขาสุขศึกษา

คณะครุศาสตร์

จุฬาลงกรณ์มหาวิทยาลัย

โทร. ๒๕๕๐๘๗๐ ต่อ ๒๕๐๘

**การสำรวจความรู้ และความคิดเห็น เรื่องโรคเอดส์
กับ
นิสิตและนักศึกษามหาวิทยาลัย**

โปรดตอบคำถามต่อไปนี้ โดยวงกลมรอบตัวเลขหน้าข้อความที่ตรงกับความเป็นจริง

1. (จ) ท่านรู้สึกอย่างไรในการพูดคุยเกี่ยวกับเรื่องเพศ

1. รู้สึกปกติมาก เหมือนกับคุยเรื่องอื่นๆ
2. ไม่ค่อยสะดวกใจเท่าไรนัก
3. รู้สึกกระอักกระอ่วนมาก

1.2) ท่านพูดคุยเกี่ยวกับเรื่องโรคเอดส์ กับคนอื่น หรือไม่

1. ใช่ ฉันคุยถึงเรื่องโรคเอดส์อยู่เสมอ
2. ไม่ ฉันไม่คุยถึงเลย

2. แหล่งข่าวสารต่อไปนี้ แหล่งใดที่ท่านได้ความรู้เกี่ยวกับโรคเอดส์มากที่สุด, มาก, น้อย หรือไม่ได้เลย วงกลมล้อมรอบตัวเลข เพียงวงกลมเดียวต่อแหล่งข่าวสาร 1 แหล่ง

ข้อ	แหล่งข่าวสาร	ไม่ได้	น้อย	มาก	มากที่สุด
		เลข 1	2	3	4
2.1	จากข่าวทั่วไปทางโทรทัศน์ หรือวิทยุ	1	2	3	4
2.2	จากโทรทัศน์ที่จัดรายการพิเศษเรื่องโรคเอดส์	1	2	3	4
2.3	จากหนังสือพิมพ์ หนังสือ หรือวารสาร	1	2	3	4
2.4	จากชั้นเรียน	1	2	3	4
2.5	จากนักสูดศึกษา หรือบุคคลากรทางสาธารณสุข	1	2	3	4
2.6	จากสมาชิกในครอบครัว	1	2	3	4
2.7	จากเพื่อนๆ หรือเพื่อนรวมชั้นเรียน	1	2	3	4
2.8	อื่น ๆ โปรดระบุ.....	1	2	3	4

3. ต่อไปนี้เป็นข้อความเกี่ยวกับโรคเอดส์ ที่ผู้สำรวจสร้างขึ้น ผู้สำรวจสนใจว่าท่าน เห็นด้วย หรือ ไม่เห็นด้วย กับข้อความดังกล่าว ดังนั้นความรู้สึกครั้งแรกที่เกิดขึ้น เมื่อกำหนดแต่ละข้อความจริงคือ สิ่งที่ดีที่สุดที่ผู้สำรวจต้องการ

คำตอบของท่านจะไม่มีผิดหรือถูก เพราะท่านมีสิทธิ์ที่จะเห็นด้วยหรือไม่เห็นด้วย โปรดวงกลมล้อมรอบตัวเลข (1-5) ที่ตรงต่อความคิดเห็นของท่าน จาก

ไม่เห็นด้วยมากที่สุด ๑,
 ไม่เห็นด้วย ๒,
 ไม่มีความคิดเห็น ๓,
 เห็นด้วย ๔, และ
 เห็นด้วยมากที่สุด ๕

ข้อ	ข้อความ	ไม่เห็น ด้วยมาก ที่สุด	ไม่เห็น ด้วย	ไม่ มีความ คิด เห็น	เห็น ด้วย	เห็น ด้วย มากที่สุด
		1	2	3	4	5
3.1	ผู้ป่วยด้วยโรคเอดส์เป็นตัวแทนของกลุ่มคนที่ถูกลืมในสังคมของเรา	1	2	3	4	5
3.2	สื่อมวลชนต่าง ๆ ควรจะได้มีการพยายามให้กว้างขวางมากขึ้น เพื่อช่วยเหลือผู้ป่วยโรคเอดส์	1	2	3	4	5
3.3	ฉันจะหลีกเลี่ยงจากคนที่ฉันรู้ว่าเขาเป็นโรคเอดส์	1	2	3	4	5
3.4	ควรให้คนที่ เป็นโรคเอดส์อยู่ด้วยกัน และแยกออกจากคนที่ไม่เป็น	1	2	3	4	5
3.5	ผู้ป่วยโรคเอดส์อันตรายนั้ไม่ควรได้รับอนุญาตให้เข้าไปในที่สาธารณะ	1	2	3	4	5
3.6	คนที่ เป็นโรคเอดส์น่าอันตรายนั้มาสู่สังคม	1	2	3	4	5
3.7	ฉันจะทำงานใกล้ติดร่วมกับคนที่ฉันรู้ว่าเขาหรือเธอเป็นโรคเอดส์	1	2	3	4	5
3.8	ผู้ป่วยโรคเอดส์ควรได้รับอนุญาตให้เข้าเรียนในโรงเรียนทั่วไป	1	2	3	4	5
3.9	ฉันจะช่วยเหลือเพื่อนที่เป็นโรคเอดส์เท่าที่จะช่วยได้	1	2	3	4	5
3.10	ฉันจะกังวลต่อสุขภาพของฉันถ้าฉันต้องทำงานร่วมกับคนที่ เป็นโรคเอดส์	1	2	3	4	5
3.11	ฉันยินดีต้อนรับคนที่ เป็นโรคเอดส์ หรือ พุดได้อีก อย่างไรก็ตาม บ้านของฉันไม่รังเกียจคนที่ เป็นโรคเอดส์	1	2	3	4	5
3.12	ฉันไม่ต้องการให้คนที่ เป็นโรคเอดส์ ถูกต้องหรือสัมผัสตัวฉัน	1	2	3	4	5
3.13	ฉันหลีกเลี่ยงคนที่ เป็นโรคเอดส์	1	2	3	4	5

3.14	คนที่ เป็นโรคเอดส์มักจะเป็นคนที่ใช้ชีวิตที่ลำบากทางเพศ	1	2	3	4	5
3.15	ฉันไม่มีความสงสัย หรือ เห็นใจ คนที่เป็นโรคเอดส์	1	2	3	4	5
3.16	ฉันไม่รังเกียจ ถ้ามีนักเรียนในชั้นเรียน กับลูกของฉัน เป็นโรคเอดส์ :	1	2	3	4	5
3.17	ฉันไม่รังเกียจที่จะไปในสถานที่ หรือ ติดต่อกับบริษัทห้างร้านที่จ้างคนที่เป็นโรคเอดส์ทำงาน	1	2	3	4	5
3.18	คนที่ เป็นโรคเอดส์ควรที่จะได้รับอนุญาตให้ใช้ชีวิตอย่างปกติเท่าที่จะเป็นได้	1	2	3	4	5
3.19	ฉันจะไม่ติดต่อกับคนที่เป็นโรคเอดส์ ถึงแม้เขาหรือเธอจะเป็นเพื่อนสนิทของฉัน	1	2	3	4	5
3.20	ฉันจะไม่กอดคนที่เป็นโรคเอดส์	1	2	3	4	5

4. โปรดวงกลมล้อมรอบ ตัวเลขที่ตรงกับความรู้สึกและความคิดของงาน ที่มีต่อประโยคต่อไปนี้ โดยพิจารณาว่าท่านเห็นด้วยในระดับใด

ไม่เห็นด้วยมากที่สุด (1)

ไม่เห็นด้วย (2)

ไม่มีความคิดเห็น (3)

เห็นด้วย (4) และ

เห็นด้วยมากที่สุด (5)

ข้อ	ข้อความ	ไม่เห็นด้วยมากที่สุด	ไม่เห็นด้วย	ไม่มีความคิดเห็น	เห็นด้วย	เห็นด้วยมากที่สุด
		1	2	3	4	5
4.1	ฉันกลัวที่จะติดโรคเอดส์	1	2	3	4	5
4.2	ฉันได้ยินเพียงขบถแล้วเกี่ยวกับโรคเอดส์ และไม่ต้องการได้ยินอีกแล้ว	1	2	3	4	5
4.3	ฉันมีโอกาสน้อยมากที่จะติดโรคเอดส์	1	2	3	4	5
4.4	ถ้ามีการตรวจเลือดเพื่อตรวจสอบการเป็นโรคเอดส์โดยไม่เสียเงิน ฉันจะตรวจ	1	2	3	4	5
4.5	ฉันยอมที่จะติดโรคอื่น ๆ มากกว่าโรคเอดส์	1	2	3	4	5
4.6	นักศึกษาจาเป็นที่จะต้องเรียนรู้เรื่องโรคเอดส์จากสถาบันการศึกษา	1	2	3	4	5

4.7	ฉันทินติที่จะใช้ถุงยางอนามัย (Latex condom) ระหว่างการมีเพศสัมพันธ์ (การรวมเพศ)	1	2	3	4	5
4.8	ฉันทินติที่จะละเว้นจากการมีกิจกรรมทางเพศที่อาจทำให้เกิดเชื้อโรคเอดส์	1	2	3	4	5
4.9	โรคเอดส์ไม่ได้ทำให้ฉันทินติกังวลหรือกลัวเลย	1	2	3	4	5

5. โปรดวงกลมล้อมรอบ เลข ๗ หากท่านเห็นว่าข้อความเกี่ยวกับโรคเอดส์ต่อไปนี้ถูกต้อง หากท่านเห็นว่าข้อความผิดหรือไม่ถูกต้อง โปรดวงกลมล้อมรอบ เลข ๒

ข้อ	ข้อความ	ถูก	ผิด
		1	2
5.1	การใช้ถุงยางอนามัยทั่วไป ชนิดไหนก็ได้ ระหว่างการรวมเพศ เป็นการลดความเสี่ยง อันตรายจากการติดเชื้อโรคเอดส์ได้อย่างมากทีเดียว	1	2
5.2	เชื้อไวรัสของโรคเอดส์สามารถอยู่ ในน้ำหล่อลื่นในช่องคลอด ของผู้หญิง	1	2
5.3	การรวมเพศระหว่างผู้ชายและผู้หญิง โดยไม่ใช้ถุงยางอนามัย (Latex condom) เป็นการเสี่ยงต่อการแพร่เชื้อโรคเอดส์จากผู้ชายไปสู่ผู้หญิง	1	2
5.4	การรวมเพศระหว่างผู้ชายและผู้หญิงโดยไม่ใช้ถุงยางอนามัย (Latex condom) เป็นการเสี่ยงต่อการแพร่เชื้อโรคเอดส์จากผู้หญิงไปสู่ผู้ชาย	1	2
5.5	โรคเอดส์สามารถติดต่อกันได้จากการรวมเพศทางทวารหนัก	1	2
5.6	โรคเอดส์ สามารถติดต่อได้โดยผ่านทาง น้ำอสุจิของผู้ชาย	1	2
5.7	คนสามารถติดโรคเอดส์จากการมีเพศสัมพันธ์ทางปาก (Oral- genital sex)	1	2
5.8	การรับเลือดจากผู้ที่มีเชื้อโรคเอดส์ สามารถทำให้ผู้รับติดเชื้อโรคเอดส์ได้	1	2
5.9	ท่านสามารถติดโรคเอดส์ได้โดยการใช้ เข็มฉีดยาร่วมกับผู้อื่นที่เป็นโรคเอดส์	1	2
5.10	เพียงการมองเท่านั้น ท่านก็สามารถบอก ได้ว่าใครเป็นโรคเอดส์	1	2
5.11	การใช้หวี หรือ แปรงผมของผู้อื่น ทำให้ท่านติดโรคเอดส์ได้	1	2
5.12	โรคเอดส์ทำให้ร่างกายอยู่ในสภาวะที่ไม่มีภูมิคุ้มกันต่ำ ทำให้ร่างกายไม่สามารถต่อสู้กับ เชื้อโรคต่าง ๆ ที่เข้ามาสู่ร่างกายได้ หรือ โดยยากมาก	1	2

5.13	ท่านสามารถติดเชื้อโรคเอดส์ได้จากการเฝ้ายาม ห้องกับผู้ป่วยโรคเอดส์ดังต่อไปนี้ เช่น การจับมือ, การโอบ หรือ จามหรือ การใช้ทิชชูร่วมกัน	1	2
5.14	เด็กทารกบางคน ก็เกิดจากแม่ที่เป็นโรคเอดส์ จะติดเชื้อโรคเอดส์จากนม ถึงแม้ว่าแม่จะเป็นโรคเอดส์ ภายหลังที่ทารกได้พัฒนาภูมิคุ้มกัน ของตัวเองแล้วก็ตาม	1	2
5.15	ความเครียดทำให้เป็นโรคเอดส์	1	2
5.16	หากท่านจับคนที่ เป็นโรคเอดส์ท่านจะติดโรคเอดส์	1	2
5.17	ผู้ชายที่เป็นพวกรักร่วมเพศ (Gay man) ทั่วไปในโลก ส่วนใหญ่เป็นโรคเอดส์	1	2
5.18	ถึงแม้ท่านจะไม่ได้สัมผัสกับสิ่งต่าง ๆ ที่ร่างกายขับออกมาเช่น น้ำอสุจิ เลือด, และ น้ำหล่อลื่นในช่องคลอดของผู้ป่วยโรคเอดส์ ท่านก็สามารถติดเชื้อโรคเอดส์ได้	1	2
5.19	อาหารที่ท่านรับประทานเข้าไป สามารถเป็นตัวนำเชื้อโรคเอดส์มาสู่ท่านได้	1	2
5.20	โรคเอดส์เป็นโรคที่รักษาได้	1	2
5.21	โรคเอดส์ไม่ใช่โรคร้ายแรงมาก มันก็เหมือนกับการเป็น ไขหวัดเท่านั้น		
5.22	แบคทีเรียเป็นต้นเหตุของโรคเอดส์	1	2
5.23	ฉันสามารถหลีกเลี่ยงการเป็นโรคเอดส์ได้โดยออกกำลังกาย เป็นประจำ		
5.24	การร่วมเพศโดยไม่มีการป้องกัน เป็นทางหนึ่งของการติดเชื้อ โรคเอดส์	1	2
5.25	คนที่ป่วยด้วยโรคเอดส์ส่วนใหญ่ จะตายด้วยโรคนี้	1	2
5.26	เลสเบียน (ผู้หญิงที่มีความสัมพันธ์ทาง เพศกับผู้หญิง) ส่วนมากเป็นโรคเอดส์	1	2
5.ก	ผู้ป่วยโรคเอดส์มักจะติดเชื้อโรคอื่น ๆ ที่มีผลมาจากโรคเอดส์อีกด้วย	1	2
5.ข	โรคเอดส์เกิดจากเชื้อโรคตัวเดียว กับ ตัวที่ทำให้เกิดโรคโกลิโนเรีย	1	2
5.ค	ท่านสามารถติดโรคเอดส์ได้จากการใช้จาน, ช้อน-ช้อม, และ แก้วน้ำ ร่วมกับผู้ป่วยโรคเอดส์	1	2
5.ง	มีวัคซีนตัวหนึ่งที่สามารถป้องกันโรคเอดส์ได้	1	2
5.จ	ท่านสามารถติดเชื้อโรคเอดส์ได้จาก ยุง, แมลงวัน และ มด	1	2
5.ฉ	ท่านสามารถติดเชื้อโรคเอดส์ได้ โดยการว่ายน้ำ ในสระเดียวกับคนที่ เป็นโรคเอดส์	1	2
5.ช	คนที่ เป็นโรคเอดส์ก็ยังไม่มีการให้เห็บ ก็สามารถแพร่ เชื้อโรคเอดส์ให้กับผู้อื่นได้	1	2
5.ซ	การใช้เข็มฉีดยา (หรือ syringes) เพียงครั้งเดียว เป็นวิธี ที่ง่ายมาก ที่จะติดเชื้อโรคเอดส์	1	2

5.ญ	โรคเอดส์สามารถเข้าไปในกระแสเลือด โดยผ่านเนื้อเยื่อที่ฉีกขาด หรือ แผล (รอยเปิด) ในช่องคลอด, อวัยวะเพศชาย (ลึงค์, หรือ ทวารหนัก	1	2
5.ฎ	ยาคุมกำเนิดสามารถป้องกันโรคเอดส์ได้	1	2
5.ฏ	เชื้อไวรัสโรคเอดส์สามารถทำให้ร่างกายของคนที่เป็นโรคเอดส์ ไม่สามารถที่จะป้องกันตัวเองได้เหมือนอย่างร่างกายของ คนที่มี สุขภาพดีทั่วไป	1	2

6. ท่านเคยมีความสัมพันธ์ทางเพศหรือไม่

1. ไม่เคย

2. เคย

6.1 หากท่านเคย ท่านมีความสัมพันธ์ทางเพศกับใครต่อไปนี้

1. คนที่มีเพศเดียวกัน

2. คนต่างเพศ

3. คนต่างเพศและบางครั้งคนเพศเดียวกัน

6.2 ท่านมีความสัมพันธ์ทางเพศครั้งแรกเมื่ออายุเท่าไร

1. ก่อน 15 ปี

4. 26-30 ปี

2. 15-20 ปี

5. 30 ปีขึ้นไป

3. 21-25 ปี

7. ท่านคิดว่าลักษณะความสัมพันธ์ทางเพศของท่านอยู่ในกลุ่มใด

1. รักร่วมเพศ (Homosexual)

2. มีความสัมพันธ์ทางเพศทั้งกับเพศเดียวกันและต่างเพศ (Bisexual)

3. มีความสัมพันธ์ทางเพศกับคนต่างเพศ (Heterosexual)

8. ท่านมีกังวลว่าท่านจะติดโรคจากคู่นอนของท่านหรือไม่

1. ใช่ ฉันมีกังวลในเรื่องนี้

2. ฉันไม่มีความกังวลในเรื่องนี้

9. ถ้าท่านจะมีความสัมพันธ์ทางเพศกับคู่นอนคนใหม่ (A new potential sex partner)

ท่านจะถามหรือพูดคุยกับเขาหรือเธอเกี่ยวกับเรื่องต่อไปนี้หรือไม่

โปรดระบุว่าความเป็นไปได้มากน้อยแค่ไหนที่ท่านจะถาม หากท่านคิดว่าท่านจะต้องถามแน่ๆ

โปรดวงกลมล้อมรอบเลข 4) หากท่านมีแนวโน้มที่จะถาม โปรดวงกลมล้อมรอบเลข 3)

หากท่านไม่แน่ใจว่าท่านจะถาม หรือไม่มีแนวโน้มที่จะถาม โปรดวงกลมล้อมรอบเลข 2)

หากท่านคิดว่าเป็นไปได้ก็ท่านจะถาม โปรดวงกลมล้อมรอบเลข 1)

ข้อ	ข้อความ	เป็นไป ไม่ได้	เป็นไป ได้น้อย มาก	เป็นไป ได้	เป็นไป ได้มากที่สุด
		1	2	3	4
9.1	ถามว่าเขาหรือเธอมีคอนโดมมาพกติด	1	2	3	4
9.2	คุยกันเรื่องการใช้อย่างอนามัย (Latex condom) ก่อนที่จะมีความสัมพันธ์ทางเพศ	1	2	3	4
9.3	ถามเขาหรือเธอว่าใช้เข็มฉีดยาในการเสพยาเสพติดร่วมกับคนอื่นหรือไม่	1	2	3	4
9.4	ถามว่า เขาหรือเธอเคยมีความสัมพันธ์ทางเพศกับคนที่ใช้เข็มฉีดยาในการเสพยาเสพติดหรือไม่	1	2	3	4
9.5	พยายามสังเกตเพื่อดูว่าเขาหรือเธอมีโอกาสที่จะติดเชื้อโรคเอดส์หรือไม่	1	2	3	4
9.6	ถามว่าเขาหรือเธอ เคยอยู่ในสภาพที่เสี่ยงต่อการติดเชื้อโรคเอดส์หรือไม่	1	2	3	4
9.7	ฉันจะพกถุงยางอนามัย (Latex condom) ในกระเป๋าตังค์ หรือ กระเป๋าถือ ของฉันตลอดเวลา	1	2	3	4
9.8	ชวนกันไปตรวจโรคเอดส์	1	2	3	4
9.9	ขอให้คุณนอนหลับว่าคุณจะมีความสัมพันธ์ทางเพศกับฉันคนเดียว	1	2	3	4
9.10	เพราะว่าเขาหรือเธอ ดูเหมือนว่าจะไม่มีโอกาสติดเชื้อโรคเอดส์ จึงไม่จำเป็นที่ฉันจะต้องใช้ถุงยางอนามัยต้องซักถามประวัติทางเพศ หรือประวัติการใช้เข็มในการฉีดยาเสพติด	1	2	3	4
9.11	ถามว่าเขาหรือเธอ เคยมีความสัมพันธ์ทางเพศกับผู้ชายที่มีรักร่วมเพศ (Gay man) หรือเปล่า	1	2	3	4
9.12	ถามว่าเขาหรือเธอ เคยได้รับการตรวจเชื้อโรคเอดส์ หรือไม่	1	2	3	4
9.13	ทุกครั้งที่จะมีการร่วมเพศ ฉันจะขอร้องให้มีการใช้ถุงยางอนามัย	1	2	3	4

10. ต่อไปนี้เป็นกิจกรรมทางเพศแบบต่าง ๆ โปรดวงกลมล้อมรอบเลข ๗
 หากท่านเห็นว่ากิจกรรมทางเพศนั้นเป็นสิ่งที่ท่านยอมรับได้
 หากท่านเห็นว่ากิจกรรมทางเพศนั้นเป็นสิ่งที่ท่านยอมรับไม่ได้ โปรดวงกลมล้อมรอบเลข ๒

ข้อ	ข้อความ	ยอมรับ	ไม่ยอมรับ
		1	2
10.1	การจูบแก้ม	1	2
10.2	การจูบปากและเอานิ้วเข้าไปถึงซี่ฟันในปากของกันและกัน	1	2
10.3	การนวดตัวให้กันและกัน	1	2
10.4	การกอด	1	2
10.5	การใช้มือของทานสำเร็จความใคร่ให้คู่นอน	1	2
10.6	การให้คู่นอนใช้มือของเขาหรือเธอสำเร็จความใคร่ให้ทาน	1	2
10.7	การใส่ปากของทานสัมผัสอวัยวะเพศของคู่นอนของทาน	1	2
10.8	การให้คู่นอนของทานใส่ปากของเขาหรือเธอสัมผัส อวัยวะเพศของทาน	1	2

11. ในขณะที่โรคเอดส์เป็นโรคที่ต้องตระหนักและป้องกันนั้น ได้ทำให้จำนวนคู่นอนของทานเปลี่ยนแปลงไปอย่างไรบ้างในรอบ 1 ปี ที่ผ่านมา โปรดวงกลมล้อมรอบตัวเลขหน้าข้อที่ตรงกัน ความเป็นจริงมากที่สุด

1. จำนวนคู่นอนของฉันทันยังคงเหมือนเดิมใน 1 ปี ที่ผ่านมา
2. ในเวลา 1 ปี ที่ผ่านมา จำนวนคู่นอนของฉันทันลดลง
3. ในเวลา 1 ปี ที่ผ่านมา จำนวนคู่นอนของฉันทันมากขึ้น
4. ฉันทันไม่มีคู่นอนเลยในเวลา 1 ปี ที่ผ่านมา

12. ในขณะที่โรคเอดส์เป็นโรคที่ต้องตระหนักและป้องกันนั้น ได้ทำให้พฤติกรรมการใช้เข็มฉีดยา เพื่อเสพยาเสพติดเปลี่ยนไปในช่วงหนึ่งปีที่ผ่านมา ข้อใดตรงกับความเป็นจริงมากที่สุด โปรดวงกลมล้อมรอบตัวเลขหน้าข้อความนั้น

1. ฉันทันยังคงใช้เข็มฉีดยาเพื่อเสพยาเสพติดเช่นเคย
2. การใช้เข็มฉีดยาร่วมกับผู้อื่น เพื่อเสพยาเสพติดของฉันทันลดลง
3. การใช้เข็มฉีดยาร่วมกับผู้อื่น เพื่อเสพยาเสพติดของฉันทันเพิ่มขึ้น
4. ฉันทันไม่เคยใช้ยาเสพติด และไม่เคยใช้เข็มฉีดยาในการเสพยาเสพติด

13. โปรดระบุว่า โรคใดต่อไปนี้ท่านเคยเป็นมาแล้ว โปรดวงกลมล้อมรอบเลข 1 หากท่านเคยเป็น หรือเลข 2 หากท่านไม่เคยเป็น

ข้อ	ข้อความ	เคย	ไม่เคย
		1	2
13.1	ซิฟิลิส	1	2
13.2	โกโนเรีย (หนองใน)	1	2
13.3	ตับอักเสบ ชนิด บี	1	2
13.4	ท่อน้ำส่วอักเสบ ที่ไม่ใช่โกโนเรีย	1	2
13.5	ท่อน้ำส่วอักเสบจากการติดเชื้อคลาไมเดีย	1	2
13.6	เริม ที่อวัยวะเพศ	1	2

14. ท่านเคยเกี่ยวข้องกับ ติดต่อกับ หรือสัมผัสกับคนที่กำลังเป็นโรคเอดส์ หรือคนที่ตายไปแล้วด้วยโรคเอดส์ในลักษณะใด

ข้อ	ข้อความ	ใช่	ไม่ใช่
		1	2
14.1	ท่านมีเพื่อนที่เป็นโรคเอดส์ ณเพื่อน ในที่นี้ หมายถึง คนที่ทำงานเย็บเย็บ พดด้วยอย่างน้อยเดือนละครึ่ง	1	2
14.2	ท่านมีคนที่รู้จักคุ้นเคย ที่เป็นเอดส์ (คนที่รู้จักคุ้นเคย หมายถึงคนที่ทำงานพบปะ หรือพดด้วยอย่างน้อยกว่าเดือนละครึ่ง)	1	2
14.3	ใน 2 ปีที่ผ่านมา ท่านได้เห็นคนที่ เป็นโรคเอดส์ และมีอาการหนัก	1	2
14.4	ในเวลา 2 ปี ที่ผ่านมา ท่านได้เห็นคนที่ เป็นโรคเอดส์ และมีอาการหนักมาก ปรากฏทางสื่อมวลชนต่าง ๆ ซึ่งภาพนั้นยังติดตาอยู่	1	2
14.5	ท่านมีคนที่ท่านรู้จักเป็นส่วนตัวที่ตายด้วยโรคเอดส์	1	2

15. ท่านคิดว่าท่านมีโอกาสที่จะได้รับเชื้อโรคเอดส์มากน้อยเท่าใด โปรดวงกลมเพียงหนึ่งข้อ
ที่ตรงกับความเป็นจริง

1. ฉันมีโอกาสรับเชื้อโรคเอดส์สูงมาก
2. ฉันมีโอกาสรับเชื้อโรคเอดส์ ปานกลาง
3. ฉันมีโอกาสรับเชื้อโรคเอดส์ ต่ำ
4. ฉันไม่มีโอกาสรับเชื้อโรคเอดส์เลย

16. ท่านรู้จักใครที่เคยไปตรวจเลือดเพื่อตรวจเช็การเป็นโรคเอดส์หรือไม่

1. รู้จัก
2. ไม่รู้จัก

17. ตัวท่านเองเคยไปตรวจเช็คการเป็นโรคเอดส์หรือไม่
1. เคย
 2. ไม่เคย
18. หากท่านเคยไปตรวจ ผลการตรวจของท่านเป็นอย่างไร
1. ผลการตรวจเป็น ลบ
 2. ผลการตรวจเป็น บวก
 3. ฉันยังไม่ทราบผล
 4. ฉันไม่ขอตอบข้อนี้
19. หากผลการตรวจของท่านเป็นบวก ท่านจะบอกคู่นอนของท่านให้ทราบหรือไม่
1. ฉันจะบอก
 2. ฉันจะไม่บอก
20. ท่านคิดว่าท่านได้มีเชื้อโรคเอดส์อยู่ในตัวของท่านแล้วหรือไม่
1. ไม่ ฉันไม่คิดว่าฉันมี
 2. ฉันไม่ทราบ
 3. ใช่ ฉันคิดว่าฉันมี

ต่อไปจะเป็นส่วนสุดท้ายของแบบสอบถาม ซึ่งผู้วิจัยมีความประสงค์จะได้ข้อมูลทั่วไปเกี่ยวกับตัวท่าน เพื่อการวิเคราะห์ทางสถิติเท่านั้น

21. ในปีการศึกษา 2535 ท่านเรียนอยู่ในชั้นปีใด
1. ปี 1
 2. ปี 2
 3. ปี 3
 4. ปี 4
22. ระหว่างเรียนหนังสือ ท่านพักอาศัยอยู่ที่ใด
- | | |
|------------------|-----------------------------|
| 1. หอพักเอกชน | 4. เข้าบ้าน, แพลตหรือ คอนโด |
| 2. บ้านญาติ | 5. อื่น ๆ |
| 3. บ้านของตัวเอง | |
23. ฐานทางสมรสของท่านตรงกับข้อใด
1. โสด
 2. แต่งงานแล้ว

24. ต่อไปนี้ ข้อใดตรงกับสภาพการอยู่อาศัยของท่านในภาคเรียนนี้

1. อยู่กับคู่สมรส
2. อยู่กับคนนอนต่างเพศกัน
3. อยู่กับเพื่อนร่วมห้อง
4. อยู่คนเดียว
5. อยู่กับคนนอนเพศเดียวกัน
6. อื่น ๆ

25. ท่านอายุเท่าไร

26. เพศของท่านคือข้อใด

1. เพศชาย
2. เพศหญิง

27. โปรดระบุภูมิภาคที่ท่านเกิดของท่านว่าอยู่ที่ใด

1. ภาคเหนือ
2. ภาคกลาง
3. ภาคใต้
4. ภาคตะวันออกเฉียงเหนือ

28. โปรดประมาณรายได้ประจำปีของครอบครัวของท่าน เลือกเพียง 1 ข้อ

1. น้อยกว่า 50,000 บาท ต่อหนึ่งปี
2. ตั้งแต่ 50,000 บาท - 250,000 บาท
3. ตั้งแต่ 250,000 - 500,000 บาท
4. ตั้งแต่ 500,000 - 1,000,000 บาท
5. ตั้งแต่ 1,000,000 - 1,500,000 บาท
6. ตั้งแต่ 1,500,000 ขึ้นไป

29. ท่านได้รับการเลี้ยงดูในครอบครัวที่นับถือศาสนาอะไร

1. ครอบครัวไม่นับถือศาสนาใด
2. แดชอลิก
3. โปรเตสแตนต์
4. คริสเตียน
5. พุทธศาสนา
6. อิสลาม
7. อื่น ๆ

30. ท่านนับถือศาสนาอะไรในขณะนี้

1. ไม่นับถือศาสนา

Appendix C

The Means and Standard Deviations of the Individual Items of the ATAV Scale

Attitude Statement	\bar{X}	S.D
a. People with AIDS represent a forgotten part of our society*	3.53	1.17
b. More media coverage should be given to the plight of people with AIDS	4.23	.98
c. I would avoid someone if I knew they had AIDS*	3.52	.97
d. People with AIDS should be grouped together and isolated*	3.40	1.02
e. People with AIDS are dangerous to allow in public*	3.76	1.04
f. People with AIDS are a menace to society*	3.30	1.15
g. I would work alongside someone I knew had AIDS	3.07	.84
h. People with AIDS should be allowed to attend public school	3.67	.96
i. I would offer whatever support necessary if a friend had AIDS	4.08	.81
j. I would be worried for my health if a Co-worker had AIDS*	2.79	1.07
k. I would open Up my house to anyone with AIDS	3.18	.88
l. I would not want a person with AIDS to touch me*	3.45	1.01
m. I avoid people with AIDS*	3.23	1.04
n. People with AIDS are probably leading promiscuous lives*	3.07	1.21
o. I feel no sympathy for someone with AIDS*	4.05	.96
p. I wouldn' t mind if one of my child' s classmates had AIDS	3.46	.97
q. I would frequent a business which employed people with AIDS	3.48	1.02
r. If someone gets AIDS, they should be allowed to continue living as normally as possible	4.07	.98
s. I would not associate with a person who had AIDS*	4.13	.93
t. I would probably not embrace someone with AIDS*	3.23	1.06

* Score reversal is needed for analysis.

Appendix D

T-Test Correlating Level of Education and Attitude

Male (N = 74)		Female (N = 202)		T-test	P-value
Mean	S.D.	Mean	S.D.		
3.60	.50	3.47	.52	2.20	.029*

* Significant at .05

Appendix E

ANOVA Results Comparing Risky Behavior And Living Arrangement

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	R Prob.
Between Groups	3	13.0110	4.3370	2.8140	.0416*
Within Groups	139	214.2337	1.5412		
Total	142	227.2448			

* significant at .05

Appendix F

Newman-Keuls Multiple Comparisons of Means for Living Arrangements

	<u>Mean</u>	<u>Group</u>	G G G G
			r r r r
			p p p p
			5 3 4 1
Living with same sex	.6000	Grp 5	
Living with roommate	.9825	Grp 3	
Living alone	1.5385	Grp.4	*
Living with spouse or opposit sex	1.6667	Grp 1	

APPENDIX G

Students' Beliefs about AIDS in Relation to Themselves

Statement	Acceptance		No Opinion	
	N	%	N	%
a. I am afraid of getting AIDS	237	80.9	28	9.6
b. I have heard enough about AIDS and I don't want to here any more about it	34	11.6	69	23.5
c. I am not likely to get AIDS	173	69.1	70	23.9
d. If a free blood test was available to see if a person has the AIDS virus, I would take it	187	63.8	56	19.1
e. I'd rather get any other disease than AIDS	132	45.0	102	34.8
f. It is important that students learn about AIDS in college class	248	84.6	18	6.1
g. I am willing to use latex condoms during sex	219	73.4	56	19.1
h. I am willing to refrain from unsafe sexual activity that might expose me to AIDS	241	82.3	33	11.3
i. AIDS does not concern me	54	18.4	50	17.1

APPENDIX H

Sources of AIDS Information

Source	A Lot		Nothing	
	N	%	N	%
a. TV or radio newscast	183	62.5	-	-
b TV specials on AIDS	70	23.9	5	1.7
c. Newspaper, books, magazines	71	24.2	1	0.3
d. School classes	28	9.6	31	10.6
e. Health professionals	10	3.4	97	33.1
f. Family members	10	3.4	70	23.9
g. Friends and classmates	22	7.5	19	6.5
h. Other (Specify)-----	10	3.4	4	1.4

Appendix I

Summary of Comments from Respondents

Questionnaire

The questionnaire is too exposed, this information about sex should not be asked, however, some commented that research on this topic is important.

Discrimination

People with AIDS should be grouped together because they may face the same suffering and they will help comfort each other.

Fear of Contagion

1. Fear that his or her partner may get the AIDS disease from prostitutes.

2. Fear that his or her partner will not tell them about being HIV positive.

Increase Knowledge

There is no cure or no vaccine for AIDS, therefore education should be given to everyone.

Need to Know

1. How is AIDS transmitted?

2. Where does the AIDS virus come from?