

THE ASSESSMENT OF HIV KNOWLEDGE AND ATTITUDES TOWARDS CARING
FOR HIV/AIDS PATIENTS AMONG SENIOR NURSING STUDENTS IN
BACCALAUREATE PROGRAMS IN THE UNITED STATES OF AMERICA AND
THAILAND

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In Partial Fulfillment
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Doctor of Philosophy

by
WUNVIMUL BENJAKUL

Dr. Martha K. Libbus and Dr. Linda Bullock, Dissertation Supervisors

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The undersigned, appointed by the Dean of Graduate School,
have examined the dissertation entitled

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Presented by Wunvimul Benjakul

A candidate for the degree of Doctoral of Philosophy

And hereby certify that in their opinion it is worthy of acceptance.

Professor Dr. Martha K. Libbus

Associate Professor Dr. Linda F. C. Bullock

Professor Dr. Lisa Sattenspiel

Associate Professor Dr. Deborah Finfgeld-Connett

Associate Professor Dr. Deidre Wipke-Tevis

DEDICATION

I would like to dedicate my work to God, family, and my church family. Without them, I would not be able to reach my goal.

Dear loving and redeeming God, I love you. With my grateful heart, I give you all of my praise and my worship. Thank you for your love, grace, mercy, kindness, goodness, and faithfulness. Glory be to you in the highest! Alleluia!

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Dr. Martha K. Libbus and Dr. Linda Bullock, Dissertation Supervisor

ABSTRACT

This study uses a descriptive, comparative design to examine, describe, and compare HIV knowledge and attitudes towards caring for HIV/AIDS patients among senior baccalaureate nursing students in the United States of America and Thailand. Either the English or the Thai version of HIV knowledge Questionnaire (HIV-KQ 45), AIDS Attitude Scale (AAS), and the Caring Survey were administered. Participants of this study come from convenience samples from the schools of nursing at the four universities: 49 U.S senior nursing students at New York University, 50 U.S. senior nursing students at University of Missouri-Columbia, 50 Thai senior nursing students at Chiang-Mai University, and 55 Thai senior nursing students at Prince of Songkla University. The key findings identified that U.S. students, regardless of HIV/AIDS prevalence area, had significantly greater HIV/AIDS knowledge than Thai students. Only the U.S. students practicing in the high HIV/AIDS prevalence area had significantly better attitude and caring scores compared to Thai students who also practicing in the high HIV/AIDS prevalence area.

CHAPTER 1

Introduction

Human Immunodeficiency Virus (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS) are deadly and complicated diseases. They present threats to human life and cause significant morbidity and mortality in human societies throughout the world. HIV infection and AIDS affect physical, mental, emotional, social and spiritual dimensions of human life. HIV and AIDS reduce the life expectancy of infected persons, increasing the number of orphaned children, creating turbulence in health care systems, and contributing to economic insecurity, potentially leading to political instability (Sowell, 2004).

In achieving the World Health Organization (WHO) goal of reducing the global infection of HIV/AIDS and the Healthy People 2010 goal of increasing the length and quality of life of individuals with HIV/AIDS (U.S. Department of Health and Human Services, 2001; WHO, 2004), nursing research studies need to be conducted to ensure nurses provide quality of care. These studies must focus on acquiring new knowledge about HIV/AIDS that are beneficial to nursing practice, decreasing the incidence of new cases of HIV infection, as well as, promoting HIV health awareness and risks to the general public. Further, nursing curricula may need to be revised to provide updated information to nursing students and to help them gain a better understanding in taking care of persons living with HIV/AIDS (PLWHA).

Nurses and nursing students must understand the facts and the realities of HIV/AIDS. Inadequate HIV/AIDS knowledge regarding etiology and modes of transmission may affect perceptions, thoughts, attitudes and actions of nurses in caring for these patients. At the core of the nursing profession is providing not only informed, scientific-based nursing care, but also providing humanistic and holistic care consistent with nursing values. Nurses and nursing students should obtain updated HIV knowledge, face and come to terms with their own fears and attitudes, and gain an ability and confidence in caring for PLWHA. Further, nursing education from the beginning of a student's practice through to continuing education credit for more experienced nurse should provide a clear, accurate, precise, relevant, deep, broad, and logical information base regarding every aspect of HIV/ AIDS issue. The attached stigma of caring for PLWHA contributes extensively to the nursing shortage (International Council of Nurses, 2006).

Examining current nursing education about HIV/AIDS is especially critical with the worldwide shortage of nurses. The nursing profession has been faced with the problem of premature resignation of nurses for more than a decade. According to the 2005 survey by the American College of Health Executives, 85% of Hospital Chief Executive Officers reported that they faced the problem of nursing shortage. Further, a report released by the American Hospital Association in April, 2006 noted that the U.S. hospitals need approximately 118,000 registered nurses to fill vacant positions across the country (Rosseter,

2006). In the midst of the HIV epidemic, the shortage of nurses impacts the health systems by both increasing demands for health services and by reducing health workforce availability and performance.

Some of the factors contributing to workforce issues include dissatisfaction in practice environments, inadequate staffing and heavy workload, excessive overtime, inflexible scheduling, exposure to occupational hazards, violence and abuse, inefficient incentives, and poor career development opportunities (International Council of Nurses, 2006). In addition, the International Council of Nurses (ICN) mentions three critical challenges related to solving the problem of nursing shortages. These challenges include the impact of HIV/AIDS, the internal and international migration of nurses, and the achieving effective health sector reform and reorganization.

Nursing shortages are not a new phenomenon. However, the current global nursing shortage is worsening; eventually, this crisis will create an adverse impact on health and the well-being of populations (ICN, 2006). In order to combat the problem, policy makers and nurse executives have been implementing many long and short-term plans to retain the number of nurses in the workplace; (ICN, 2006; Rosseter, 2006) while nursing educators have created new and exciting strategies to increase the number of nursing students that will graduate and will work in various health care settings. Although the intensity of the nursing shortage will hopefully decline, it requires the attention

and efforts now in order to maintain a sufficient amount of nurses in the workplace and ones able to care for PLWHA.

Statement of the problem

Although the AIDS epidemic began in the 1980s and expanded into a pandemic in the 1990s, efforts to control the incidence and mortality rate of HIV/AIDS have been only marginally effective in many developing countries, especially in South East Asia and Africa. In industrialized countries such as the United States (U.S.), HIV/AIDS education and antiretroviral therapy have greatly reduced the mortality rate and have increased the prevalence rate of PLWHA. A report released by the World Health Organization in 2004 estimated that 40 million people worldwide are now living with HIV/AIDS (Barnett & Whiteside, 2006; WHO, 2004). The HIV/AIDS epidemic has spread rapidly in many countries in sub-Saharan Africa. Further, some regions such as Eastern Europe and Central Asia are now seeing rapidly growing epidemics (UNAIDS, 2004). With the high number of PLWHA and the burden of HIV/AIDS, world health leaders recognize the importance of global collaboration in infection control and making policies for sharing the resources, as well as encouraging everyone to cooperate in making every effort to identify, control, and prevent the spread of infections (Sowell, 2005; UNAIDS, 2004; WHO, 2003).

HIV/AIDS has been labeled as a stigmatized disease (Sandelowski, Lambe, & Barroso, 2004). PLWHA often experience extreme negative attitudes or prejudices even from within the health care profession. In previous research

studies, healthcare professionals expressed their fear and unwillingness to care for PLWHA (Al-Ma'aitah, Gignac, & Rajacich, 1996; Barrick, 1998; Bell & Williams, 1991). Identified fears and concerns mentioned by nurses and other health care providers included the possibility of becoming infected with HIV through occupational exposure, worry about spreading HIV infection to their families, dislike of homosexuals, and homophobia (All & Sullivan, 1997; Berkowitz & Nuttall, 1996; Bower, Webb, & Stevens, 1994). The coincidence of unwillingness to care for PLWHA and the continuing of nursing shortage may lead to a long-term problem in the nursing profession.

Purpose of the Study

The purposes of this study are to (a) examine and describe HIV knowledge and attitudes towards caring for HIV/AIDS patients among senior baccalaureate nursing students in the United States of America and Thailand, (b) compare HIV knowledge and attitudes towards caring for HIV/AIDS patients of American senior baccalaureate nursing students who are studying in high and low HIV/AIDS prevalence areas, and (c) compare HIV knowledge and attitudes towards caring for HIV/AIDS patients of Thai senior baccalaureate nursing students who are studying in high and low HIV/AIDS prevalence areas.

The findings from this study are expected to provide information about the level of HIV knowledge and attitudes of American and Thai senior baccalaureate nursing students towards PLWHA. These results should be useful

in assisting nurse educators to develop appropriate nursing curriculum for students and for practicing nurses.

Research Questions

1. What differences exist between American and Thai senior baccalaureate nursing students related HIV knowledge and attitudes towards caring for HIV/AIDS patients?
2. For American senior baccalaureate nursing students studying in high and low HIV/AIDS prevalence areas, what differences exist in HIV knowledge and attitudes towards caring for HIV/AIDS patients?
3. For Thai senior baccalaureate nursing students studying in high and low HIV/AIDS prevalence areas, what differences do exist in HIV knowledge and attitudes towards caring for HIV/AIDS patients?
4. Do relationships exist between HIV knowledge, attitudes, and caring scores of American senior baccalaureate nursing students and the number of clinical hours in caring for HIV/AIDS patients?
5. Do relationships exist between HIV knowledge, attitudes, and caring scores of Thai senior baccalaureate nursing students and the number of clinical hours in caring for HIV/AIDS patients?
6. Do relationships exist between HIV knowledge, attitudes, and caring scores of American senior baccalaureate nursing students and the number of HIV/AIDS patients cared for during the entire nursing education?

7. Do relationships exist between HIV knowledge, attitudes, and caring scores of Thai senior baccalaureate nursing students and the number of HIV/AIDS patients cared for during the entire nursing education?

Hypotheses

1. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of American senior baccalaureate nursing students are significantly different from those of Thai senior baccalaureate nursing students.
2. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of American senior baccalaureate nursing students who are studying in high HIV/AIDS prevalence area are significantly different from those of American senior baccalaureate nursing students who are studying in low HIV/AIDS prevalence area.
3. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of Thai senior baccalaureate nursing students who are studying in high HIV/AIDS prevalence area are significantly different from those of Thai senior baccalaureate nursing students who are studying in low HIV/AIDS prevalence area.
4. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of American senior baccalaureate nursing students will increase significantly in relationship to the increase in the students' hours in direct clinical care of HIV/AIDS patients.

5. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of Thai senior baccalaureate nursing students will increase significantly in relationship to the increase in the students' hours in direct clinical care of HIV/AIDS patients.
6. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of American senior baccalaureate nursing students will increase significantly in relationship to the increase in the number of HIV/AIDS patients cared for.
7. Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of Thai senior baccalaureate nursing students will increase significantly in relationship to the increase in the number of HIV/AIDS patients cared for.

Definition of Terms

HIV Knowledge: Knowledge related to facts about Human Immunodeficiency Virus (HIV), HIV transmission and prevention.

HIV Attitudes: Attitudes towards individuals infected by HIV.

Caring for HIV patients: Willingness to take care of individuals infected by HIV.

PLWHA: Persons living with HIV/AIDS

CHAPTER 2

Literature Review

Controlling global HIV infection is a challenging public health goal. Nursing as the world's largest health profession, has an important role in the primary, secondary and tertiary prevention of HIV. With the ultimate goal of the nursing profession as providing the best quality of care to persons living with HIV/AIDS (PLWHA), nursing educators must enhance learning experience and strengthen capacity of nursing students. This can be accomplished by providing essential knowledge and facilitating skills necessary to providing holistic nursing care to those populations that are at risk or who are suffering from HIV/AIDS.

Since HIV knowledge is a rapidly changing subject, nursing students and nurses must receive accurate and updated scientific knowledge about HIV infection, HIV risk reduction behaviors, and global HIV control to achieve their educational goals and health care roles. Moreover, they should be encouraged to counter the stigma attached to HIV/AIDS and develop positive attitudes towards individuals living with HIV or AIDS.

This chapter is organized in two parts: (1) Basic HIV-knowledge and (2) Attitudes towards caring for persons living with HIV/ AIDS.

Basic HIV-Knowledge

HIV Virus.

Human Immunodeficiency Virus Type 1 (HIV-1) is a retrovirus that has an important enzyme called reverse transcriptase. This enzyme is responsible for transcribing RNA to DNA, or in other words, synthesizing DNA by using the RNA template (Gladwin & Trattler, 2001; Graham, 2001). After transcribing the viral RNA to the viral DNA, the viral DNA incorporates into genome of the human T cells and then rapidly replicates itself. HIV-1 has a high replication rate and a high mutation rate. It can reproduce 10 billion viral particles per day in an untreated person with a high mutation rate of 3×10^{-5} nucleotides per replication cycle/ day (Frame, 2003; Graham, 2001).

HIV primarily infects CD4 T lymphocytes by using HIV envelope glycoproteins (gp120 and gp41) of viral particles binding to the surface of CD4 T lymphocyte cells or that of chemokine receptors (CCR5 and CXCR4). The HIV virus also infects macrophages and dendritic cells that are in peripheral lymphoid tissue. HIV infection kills CD4 T lymphocyte cells both by direct cytopathic mechanism and by triggering apoptosis, which is a normal process that eliminates unwanted cells (Abbas, Lichtman, & Pober, 2000; Fauci, Pantaleo, Stanley, & Weissman, 1996).

Human body and Human responses.

HIV is transmitted through direct exchange of infected body fluids from an infected host to a susceptible host. Transmission occurs through unsafe sexual

activities, sharing contaminated needles, receiving contaminated blood transfusions, and mother to infant transmission during pregnancy, delivery, or lactation. Occupational exposure is possible for those exposed to HIV contaminated body fluids (Aron, 2001; Chin, 2000; Eigsti & Jones, 2002; Fisher & Fisher, 1995; Graham, 2001; Pattern, Vollman, & Thurston, 2000).

In primary HIV infections, many infected people remain completely asymptomatic, although some people develop an acute clinical illness known as Acute Retroviral Seroconversion Syndrome or called Acute Primary HIV Infection (PHI) due to HIV specific humoral and cell-mediated immune responses. Most of clinical symptoms of PHI include fatigue, fever higher than 38 Degree Celsius, night sweats, rash, palpable lymph node enlargement at inguinal sites, axillary and cervical areas, joint and muscle pain, pharyngitis, diarrhea, oral thrush, nausea and vomiting, weight loss, loss of appetite, and neurological illnesses (Kirton, 2003; Pratt, 2003). In addition, some people infected with HIV may develop multiple swollen lymph glands, which is called Persistent Generalized Lymphadenopathy (PGL) (Department of Health and Human Services & The Henry J. Kaiser Family Foundation, 2003; Fauci et al., 1996; Frame, 2003; Kirton, 2003; Pratt, 2003).

With the loss of CD4 cells, many people infected with HIV may develop major opportunistic infections, such as oral thrush, vulvovaginal candidiasis in women, pneumocystic carinii, cryptosporidiosis, cytomegalovirus diseases, Kaposi's sarcoma, HIV encephalopathy, and HIV wasting syndrome (Kirton,

2003; Pratt, 2003). As plasma HIV RNA (Viral load) increases, the number of CD4 T lymphocyte cells decreases and this leads to progressively ineffective immune functions and progression to the full-blown AIDS syndrome. This may occur when the CD4 cell count is less than 200 cells per microliter (μL) (Abbas et al., 2000; Kirton, 2003; Pratt, 2003).

Specific risk groups for HIV/AIDS have been identified. For example, in the United States, much infection has been seen in men who have sex with men (MSM) and injecting drug addicts (De Cock & Weiss, 2000; Goodroad, Kirksey, & Butensky, 2000; Graham, 2001; Smith & Maurer, 2000). In contrast, in Asia, HIV/AIDS has mainly been found in groups of commercial sex workers, injecting drug users, recipients of infected blood, and is seen more as a heterosexual than a homosexual disease (Allen et al., 2003; Grusky, Liu, & Johnston, 2002; Inciardi & Harrison, 1997). Similar to Asia, many reports from Africa have shown that HIV infection is highly prevalent in commercial sex workers and male and female heterosexuals. Perinatal HIV/AIDS is a significant problem since women may transmit the virus vertically to their offspring during pregnancy, labor, or post partum through breastfeeding (Campbell & Kelly, 1995; Karim, Abdool-Karim, Soldan, & Zondi, 1995).

Socioeconomic Status.

In the United States, the poverty rate is based on a set of income thresholds that vary by family size and its composition (Wingood & DiClemente, 2002). As a result of economic pressure, many adolescent females and women

who have low incomes or who are unemployed may have to depend on their male partners financially or, in some cases, are forced into commercial sex work. Almost inevitably, commercial sex work will expose women to behaviors that put them at high risk of being infected with HIV. Sex workers tend to be exposed to sexually transmitted diseases and HIV infection because of infrequent use of condoms, little power to negotiate condom use, and no money to purchase them (Wingood & DiClemente, 2002). In addition, they may have limited healthcare resources or no health insurance to cover preventive reproductive health services. Therefore, women who are uninsured may delay in seeking care for their health problems when compared with women who have private insurance or Medicaid coverage (Wingood & DiClemente, 2002).

In Thailand, estimated 35 million Thai people were employed in 2005 (Department of Provincial Administration, National Statistical Office and Social Development Board, 2006). The 2005 minimal wage varies according to city, for example, in Bangkok, an individual earns 181 Baht/day or \$4.61 dollars/day; in Chiang Mai, individuals earn 153 Baht/day or \$ 3.95 dollars/ day; and in Songkla, individuals earn 144 Baht/day or \$3.72 dollars/day (Office of Wage Committee, Ministry of Labor, 2006) [(calculated with the official exchange rate of approximately 38.73 Baht/ US Dollar (Reuters FXXZ, Finance & Bullion Report, 2006)]. The poverty in Thailand may lead to crimes such as human trafficking, prostitution, and drug dealing, all situations that facilitate the spread of HIV infection.

Individuals infected by HIV have to confront the physical, economic, social, and psychological impact on their health. In addition to these factors, their inability to work full time reduces household income and increases expenditures on medical care, food, and washing materials (Barnett & Whiteside, 2006). With the high cost of antiretroviral drugs and little or no opportunity to work, individuals infected with HIV/AIDS have little opportunity to access resources to improve their quality of life. If AIDS is the cause of death in Thailand, the burial is more expensive due to added precautions taken by local health authorities. On average families spend nearly 50% more on funerals than they do for medical care of the loved ones with HIV/AIDS (Barnett & Whiteside, 2006).

Migration.

Technological advances in transportation ability and speed have led to increased mobility or global travel. Mobility increases the likelihood or probability of getting or carrying infectious pathogens to another environment (Chenoweth, 2004; Smith & Maurer, 2000). Karim et al. (1995) identified long distance truck drivers as one of the high- risk groups of acquiring or transmitting sexually transmitted diseases, in particular at the truck stops.

Health care system.

In rural areas and in developing countries, many barriers may affect the accessibility of people to health care services. These barriers include a lack of transportation, a lack of telephone services, a shortage of medical and social

services, insufficient outreach health care providers, and a lack of medical insurance of the poor (Bushy, 2000; Earl & Penney, 2003; Hubbard, 2006). Obstacles created by rural living may cause difficulty for HIV-infected individuals to be treated immediately upon knowing the result of the HIV serology testing and in obtaining and adhering to drug regimens (Bakken et al., 2000; Fargarty et al., 2002; Hubbard, 2006; Roberts, 2000).

Indigenous health practices may also hasten the spread of HIV. For example, in Uganda, because of a lack of trained health care providers, traditional healers assume power and privilege in providing treatment of all illnesses and take responsibility for ritual scarification and circumcision. Some studies identified that these traditional healers sometimes were unaware of universal precautions; consequently, enhancing the spread of sexually transmitted diseases and HIV infection (Green, 1999).

Methods used to treat HIV/AIDS

Conventional Therapy.

Although there is currently no cure for HIV infection, the advances in medical treatment have given hope to individuals living with HIV/AIDS and have played an important role in prolonging survival and restoring the quality of life of infected persons (Back et al., 2002). Since 1996, antiretroviral drugs have been developed and currently twenty-one antiretroviral drugs are approved for use in the U.S. (Wolbach-Lowes, Jed, Johnson, & Fletcher, 2005). Antiretroviral drugs are categorized into five classes: nucleoside reverse transcriptase inhibitors

(NRTIs), nucleotide reverse transcriptase inhibitors (NtRTIs), non- nucleoside reverse transcriptase inhibitors (NNRTIs), protease inhibitors (PIs), and fusion inhibitors (Bartlett, 2006; Clercq, 2002; Coffey, 2006; Coffey & McNicholl, 2006; Phillips et al., 2003; Wolbach –Lowes et al., 2005).

The U.S. Food and Drug Administration (FDA) has approved antiretroviral combinations for a once-daily dose. The antiretroviral combinations consist of at least three active antiretroviral drugs from two separate drug classes (2 NRTIs + 1 NNRTI or PI) (Coffey, 2006). Starting antiretroviral drug regimens or changing therapy for HIV infected patients is based on clinical status, HIV viral load tests, and CD4 T Cell counts. Generally, the antiretroviral combinations are recommended when the CD4 T Cell count is ≤ 350 cells/mm³ and/ or the viral load is $> 100,000$ copies/mL by RT-PCR or DNA methodology (Wolbach –Lowes et al., 2005).

Many factors influence the efficacy of antiretroviral therapy including medication potency, drug interactions, adverse effects, and viral resistance. Further, drug adherence of HIV patients is another factor that brings success to the therapy (Coffey, 2006; Coffey & McNicholl, 2006; McNicholl, 2006; Wolbach –Lowes et al., 2005). According to the 2003 report of World Health Organization (WHO) regarding the status of antiretroviral treatment, the report identified that in the U.S., 84% of infected individuals (210,000 HIV infected persons) were on the antiretroviral therapy (WHO, 2003).

While India leads the South East Asian Region in absolute numbers of HIV infection, Thailand has the second highest country of AIDS cases in South East Asia (WHO Regional Office for South-East Asia, 2006). At the end of 2004, an estimated 570,000 Thai people were living with HIV/AIDS of the total estimate 6.2 million PLWHA in South East Asia (WHO, 2004; WHO Regional Office for South-East Asia, 2006). For Thailand, at the end of June 2005, an estimated 55,000 Thai people living with HIV/AIDS received antiretroviral drugs (WHO Regional Office for South-East Asia, 2006).

Complementary/ Alternative Therapy.

The characteristics of HIV/AIDS are unpredictable. Further, for many infected persons, antiretroviral drugs are either not available or not trusted. Therefore, PLWHA may choose to use complementary and alternative therapies to control symptoms. In the past few years, complementary and alternative therapies have received much attention. These therapies are categorized into five groups by the National Center for Complementary and Alternative Medicine (NCCAM) (Kirksey et al., 2002). They include (a) alternative medical systems including homeopathy, naturopathy, Ayurvedic treatments, acupuncture, and hydrotherapy; (b) mind-body interventions including meditation, hypnosis, dance, music therapy, art therapy, spirituality and prayer; (c) biologically based treatments including herbal therapies, special diets, orthomolecular modalities, and biological therapies; (d) manipulative and body-based methods including massage therapy, chiropractic, and traditional osteopathic care; and (e) energy

therapies focusing on energy fields originating within the body and those from electromagnetic fields (Bates, Kissinger, & Bessinger, 1996; Decker, 1999; Kirksey et al., 2002; Nokes, Kendrew, & Longo, 1995; Pawluch, Cain, & Gillett, 1994).

Some studies have suggested that persons living with HIV/AIDS gained benefits from using complementary and alternative therapies. These include, for example, reducing stress and anxiety, increasing coping skills, feeling more in control, alleviating pain, increasing blood flow circulation, enhancing mental clarity, bolstering immune function, and increasing the quality of life with feeling of well-being (Carwein & Sabo, 1997; Decker, 1999; Fairfield, Eisenberg, Davis, Libman, & Phillips, 1998; Mulkins, Morse, & Best, 2002; Nokes et al., 1995; Power, Gore-Felton, Vosvick, Israelski, & Spiegel, 2002; Sparber et al., 2000).

Attitudes Towards Caring for PLWHA

Since the beginning of the HIV epidemic, research studies related to attitudes towards persons living with HIV/AIDS (PLWHA) and caring for them have been conducted by renowned researchers from many parts of the world (Al-Ma'aitah et al., 1996; Anderson, Qingsi, Guanglin, Zhijun, & Wei, 2003; Bell & Williams, 1991; Bruce & Walker, 2001; Durkin, 2004; Im-em, VanLandingham, Knodel, & Saengtienchai, 2002; Kumar et al., 2002; Lohrmann, Valimaki, Suominen, Dassen, & Peate, 2000; Maswanya et al., 2000; McKelvey, Webb, Baldassar, Robinson, & Riley, 1999; Oyeyemi, Oyeyemi, & Bello, 2006; Petro-Nustas, Kulwicki, & Zumout, 2002; Rondahl, Innala, & Carlsson, 2003;

Stiernborg, 1992; Stiernborg, Zaldivar, & Santiago, 1996; West, Davis-Lagrow, Leasure, & Allen, 1998; Wissen & Siebers, 1993). Most of these studies reflected the attitudes of groups of health care providers such as nursing students, nurses, doctors, and dentists towards PLWHA. However, none of these studies have been conducted with Thai nursing students.

With the stigma that a medical diagnosis or labeling of HIV or AIDS carries, PLWHA often are in denial of having been infected with HIV. These individuals often face prejudice and discrimination from society when their HIV status is disclosed (Duffy, 2005). Sometimes, these situations may lead to medication non-compliance.

Individuals with HIV/AIDS have complex needs across the disease spectrum. Caring for these patients is demanding and very challenging to both health care providers and to the family caregivers who are primarily responsible for implementing care. Although HIV/AIDS carries stigma and can possibly cause the risks of contagion to health care providers by occupational exposure, caring for PLWHA will continue to be a critical nursing responsibility (Rondahl et al., 2003). The attitude of stigmatization is an antecedent to the behavior of discrimination (West, Leasure, Allen, & LaGrow, 1996). If nurses have negative attitudes towards PLWHA, they may either be unwilling to care for them to may deliver sub-standard nursing care.

Many studies regarding attitudes towards PLWHA, specify factors leading to feelings of discomfort and unwillingness to care for persons with HIV or AIDS and may include:

1. the fear of contracting HIV through occupational exposure (Anderson et al., 2003; Berkowitz, & Nuttall, 1996; Bowman, Brown, & Eason, 1994; Durkin, 2004; Jemmott, Freleicher, & Jemmott, 1992; Rondahl et al., 2003; Stiernborg, 1992)
2. worry about the spreading of HIV to their families, especially to their children (Wissen & Siebers, 1993)
3. lack of HIV knowledge and a misunderstanding of the facts and realities of HIV infection or AIDS (Bell, & William, 1991; Bowman et al., 1994; Ficarroto, Grade, Bliwise, & Irish, 1990; Gignac, & Oermann, 1991; Jimmott, Jimmott, & Cruz-Collins, 1992; Oyeyemi et al., 2006; Tesch, Simpson, & Kirby, 1990)
4. having negative attitudes towards homosexuality or homophobia (Barrick, 1988; Jemmott et al., 1992; Leasure, Hawkins, & Merrill, 1996; Lohrman et al., 2000; Peate et al., 2002; West et al., 1996).

Although healthcare providers have been aware of HIV/AIDS for 25 years, fear of contagion still persists among nurses. The fear of contracting HIV infection through occupational exposure impacts on the development of a professional relationship with persons with HIV infection or AIDS (Froman, & Owen, 1997; Froman, Owen, & Daisy, 1992). Working with HIV victims may

cause a feeling of discomfort even though nurses usually have a reasonable knowledge of AIDS. Global HIV/AIDS infection has been identified by some as partially contributing to the nursing shortage. Many nurses leave their jobs, refuse or hesitate to provide care for PLWHA, or give only minimal care to these patients (Bowd, & Loos, 1987; Durkin, 2004; Lal, Kumar, Ingle, & Gulati, 1998; Oyeyemi et al., 2006; Rondahl et al., 2003).

Interestingly, there appear to be gender differences in attitudes towards PLWHA. Barrick (1988) reported that woman had more anti-homosexual attitudes than did men. Women also expressed stronger disapproval of extra marital sex than those of men (McKelvey et al., 1999). In contrast, the study by Bruce and Walker (2001) and Shrum, Turner, and Bruce (1989) found that female students had more tolerant attitudes than males. In terms of ethnicity, Asian students expressed more negative attitudes on premarital sex and contraception than those of Anglo-Saxon students. It has also been noted that tolerant attitudes toward AIDS increase with age (Shrum et al., 1989).

It is increasingly recognized that nurses' and nursing students' attitudes towards PLWHA tend to vary depending on the way in which the individual patient has contracted the virus. Attitudes generally are more negative towards homosexuals and injecting drug users. West et al. (1996) studied the attitudes of nursing students toward people living with AIDS according to mode of HIV transmission. They used five vignettes, which were adapted from a measure developed by Kelly et al. (1988). The structure of each of the five vignettes was

essentially identical except for the mode of HIV transmission. After nursing students read each vignette, they were asked to rate the same 16 declarative statements on a seven-point Likert scale. The first nine items on the scale were from Kelly's (1988) Prejudicial Evaluation subscale; these nine items related to Goffman's concept of deservedness of care. Item 10 through 16 relate to Goffman's concept of respect and regard. West et al. (1996) found that baccalaureate nursing students were the most stigmatizing towards people who had developed AIDS through injecting drugs followed by sexual contact both in homosexuals and in heterosexuals, and least stigmatizing towards persons who contracted HIV through maternal transmission and a blood transmission.

Similarly, Leasure et al. (1996) conducted a study with nursing students at a comprehensive midwestern university using a measure developed by Kelly et al. (1988), and found that PLWHA with the highest stigma scores were the persons who contracted AIDS via injection drug use because it related to a crime or illegal issues. Homosexual and heterosexual transmissions were considered to be less deserving of care than the injection drug users. Homosexuals received less respect than heterosexuals.

Regional AIDS prevalence may also affect attitudes and knowledge. The findings of a study conducted by West et al. (1998) suggested that students from a high HIV prevalence state (Florida) had significantly higher AIDS knowledge scores than did students from a low prevalence state (Oklahoma). Further, Latman, Horton, Finney, and Fenstermacher (1996) found that nurses

assigned to infection control expressed more positive attitude to HIV/AIDS than did nurses assigned to other areas.

In terms of education, Snowden (1997) reported no differences between first and third year nursing student's attitudes and moral judgment about HIV and AIDS. Yet, Gignac and Oermann (1991) found that senior nursing students had significantly higher scores on willingness to care for PLWHA than those in other levels of nursing program. They also noted that senior nursing students who knew homosexual persons had significantly higher scores on willingness to care than those who did not know homosexual persons.

In addition, Magenheimer (1995) found that nursing faculty members held very positive, supportive and non-judgmental attitudes toward HIV/AIDS patients. When compared to student attitudes, faculty members were significantly more positive. Further, senior baccalaureate nursing students' attitudes were significantly more positive than the final year associate degree nursing students' attitudes. Baccalaureate senior nursing students held significantly more positive attitudes than baccalaureate first semester students. Associate degree nursing students held the most negative and judgmental attitudes of the student groups.

The Code of Ethics for Nurses (ANA, 1976) provides the basic ethical framework for all nurses to adhere to, regardless of their roles. The code guides nurses to provide humanistic and holistic care to meet the health needs of the public. Caring is the essence of nursing. In order to provide the best quality of

care for PLWHA, the scope of HIV/AIDS nursing education should expand and emphasize the ideas of patient-centered care, interdisciplinary teamwork, evidence-based practice, and quality improvement approaches (Shaver, 2005). Current and upcoming generations of nurses must be prepared and stay ready to work in numerous health care delivery settings that will require nurses with the latest in HIV/ AIDS knowledge and experience in caring for PLWHA.

Unfortunately, a number of studies have found that nurses and nursing students support the individual nurses' right to choose whether to care or not to care for person with HIV/AIDS (Bell, & Williams, 1991; Berkowitz, & Nuttall, 1996; Lal et al., 1998; Lohrmann et al., 2000). Many nurse researchers and educators feel that interdisciplinary education and collaborative practice must be developed to support the experiential learning of nursing students (Bower et al., 1994; Shaver, 2005). Nursing students may be assisted to build their competencies based on their increasing HIV knowledge and to foster their compassion that may increase their willingness to care for PLWHA (Bower et al., 1994; Carney, Werth, & Martin, 1999; Goldenberg & Laschinger, 1991; Grossman, Wheeler, & Lippman, 1998; Lal et al., 1998; Rondahl et al., 2002; Stiernborg et al., 1996).

In addition, nurse educators, as the role model, must demonstrate the values held in nursing. Prejudicial attitudes must be replaced with attitudes of understanding of individual differences, non-judgmental approaches, and the

compassion to accept HIV/AIDS clients and treat them with respect and positive regard (Bradley-Springer, 1999; West et al., 1998).

Theory of Attitude

Allport first mentioned attitude theory in social psychology in 1935 (Greenwald, 1989). Subsequently, many attitude theorists studied its structure and its functions. Briefly, attitude is a multidimensional construct that consists of cognition, affect, and conation (Ajzen, 1989, 1993). Attitude is the evaluation of an individual to a particular entity or an attitude object with some degree of favor or disfavor based on values, beliefs, and direct experience (Albarracin, Johnson, Zanna, & Kumkale, 2005; Eagly & Chaiken, 1993, 1998). In addition, attitudes may be expressed either consistently or inconsistently. Attitudinal inconsistency or ambivalence can occur when individuals have both positive and negative attitudes toward certain attitude objects or some objects, persons, or events (Aiken, 2002; Albarracin et al., 2005; Eagly & Chaiken, 1998).

Attitudes cannot be observed directly, but they can be inferred from verbal and nonverbal responses toward attitude objects in either a favorable or an unfavorable way (Ajzen, 1989, 1993). Moreover, these verbal and nonverbal responses can come from cognition (thoughts and perceptions), affect (feelings and emotions), or conation (intentions to act, commitments, and actions) (Ajzen, 1989, 1993). Attitudes influence not only the ways that individuals view events and people, but also the ways that people live their lives, make decisions and act towards other people (MacDonald, 2001).

The effect of attitudes on behavior is suggested by a number of theoretical frameworks. One of these is the Theory of Reasoned Action and Planned Behavior (TPB). This theory is regarded as a widely used behavioral prediction theory that represents a social-psychological approach to understanding and predicting the determinants of health behavior. It explains that human behavior results from the complexity of relationships among beliefs, attitudes, intentions, and behavior (Ajzen, 1989, 1993; Ajzen & Fishbein, 1980). In this framework, it is posited that behavioral beliefs and intention influence an individual's attitudes.

Attitudes may be conceptualized in terms of values in which an individual develops a particular value about behavior. An individual is supported in keeping a value and refining it through the people with whom he or she associates (Redding, Rossi, Rossi, Velicer, & Prochaska, 2000). Intentions are viewed as a function of personal attitudes, feelings and subjective norms about the behavior (Ajzen, 1993; Fishbein, Middlestadt, & Hitchcock, 1994; McDermott, 1998; Pender, Murdaugh, & Parsons, 2002; Poss, 2001). The intention to perform a particular behavior is strongly related to the actual performance of that behavior (Redding et al., 2000). Therefore, attitudes and subjective norms impact on the intention to care for PLWHA (Goldenberg & Laschinger, 1991; Leasure et al., 1996).

Stigma

After Goffman (1963) a pioneer in examining the relationship of stigma to disease process, many researchers applied the stigma concept in describing the effects of stigma or negative labeling on a variety of populations, such as homeless people, persons with epilepsy, persons with mental health problems, individuals with HIV/AIDS, and disabled individuals (Alder, Porter, Abraham, Teijlingen, 2004; Duffy, 2005; Stoller, 1997; Takahashi, 1998). Goffman defined the term stigma as the bodily signs designed to expose something unusual and bad about the moral status of signifier. In other words, stigma is the identification of moral contamination and the recognition of a bad, deviant or negative characteristic in an individual or in a group. Furthermore, he mentioned three different types of stigma: (a) abominations of the body or the physical deformities; (b) blemishes of individual character perceived as weak will or unnatural passions, for example, imprisonment, mental disorder, alcoholism, addiction, homosexuality and suicidal attempts; and (c) tribal stigma of race, nation, and religion (Goffman, 1963).

The issue of HIV/AIDS stigma was discussed in the 2001 conference of National Institutes of Health entitled "Stigma and Global Health: Developing a Research Agenda" in order to consolidate understanding of stigma and disease (Duffy, 2005). Regardless of the type of stigma, people who have unusual sexual lifestyles or those with stigma are viewed as not quite humans and may receive less respect or rejection and become relatively devalued in society (Alder

et al., 2004; Goffman, 1963; Stoller, 1997; Takahashi, 1998). Because most people respond to stigma rather than to people, the negative attitudes of individuals, which are showed by their reactions, to HIV/AIDS affect PLWHA. This stigma makes individuals with HIV/AIDS feel shame, isolation, and live their lives in silence (Duffy, 2005).

Individuals with HIV/AIDS are victims of stigmatization no matter if they are viewed as innocent or guilty victims according to their modes of HIV transmission. They have to face acts of prejudice and discrimination from society. In particular, victims who acquired HIV infection through the results of their own actions are less desirable and different from normative expectations or virtual social identities (Alder et al., 2004; Goffman, 1963; West et al., 1996).

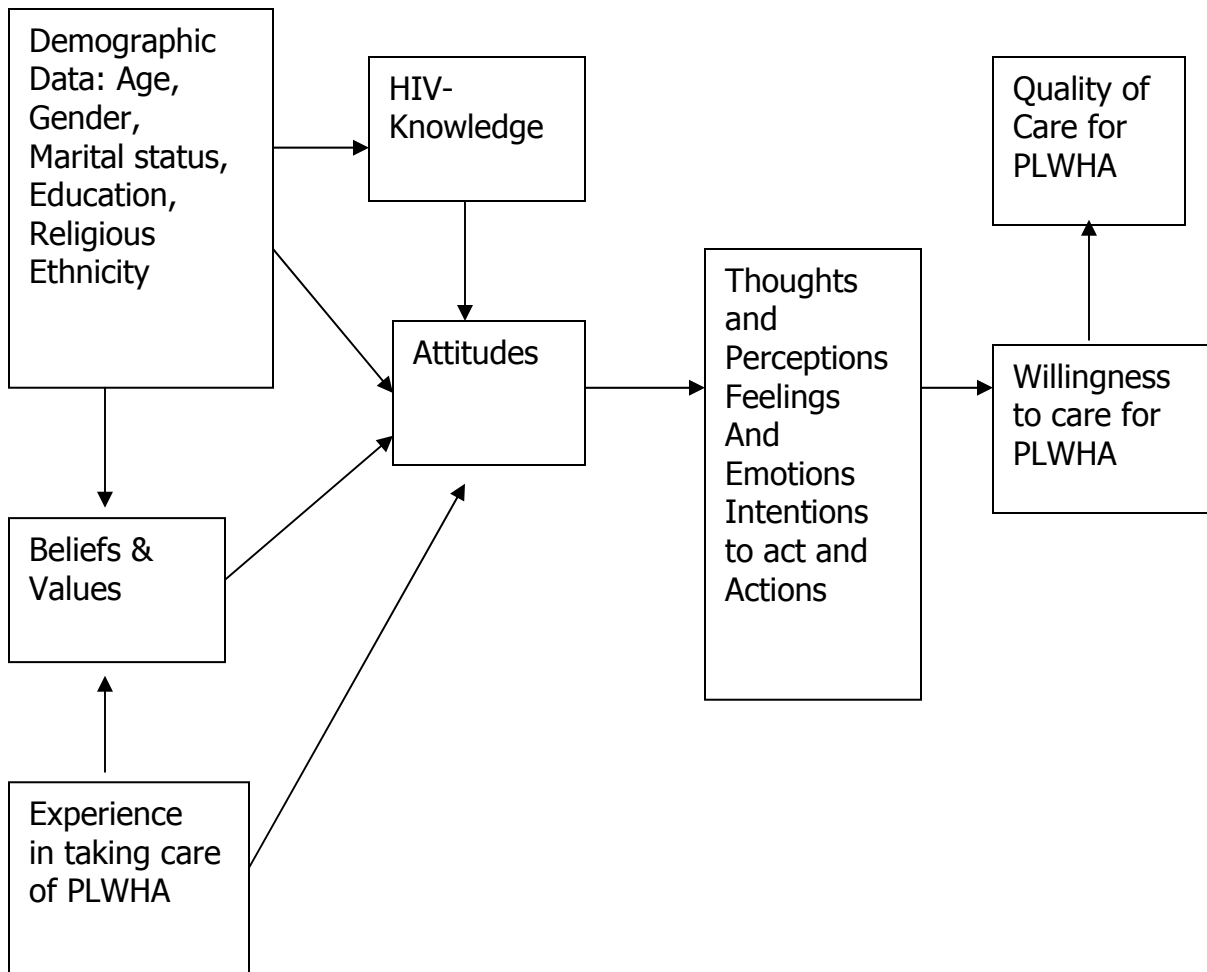


Figure1. Operational Framework based on theory of Reason Action and Planned Behavior (Ajzen, 1989, 1993; Ajzen, & Fishbein, 1980).

CHAPTER 3

Method

This study uses a descriptive, comparative design to examine, describe, and compare HIV knowledge and attitudes towards caring for HIV/AIDS patients among senior baccalaureate nursing students in the United States of America and Thailand. This section describes the process of instrument adaptation (translation process), psychometric evaluation, settings, population and samples, data collection, data analysis, and human rights protection.

Instruments

HIV Knowledge Questionnaire (HIV-KQ-45; 45 item version).

The HIV knowledge questionnaire (HIV-KQ-45) was developed by Carey, Morrison-Beedy, and Johnson (1997) and is a self-administered instrument. It consists of 45 statements that are related to HIV-transmission, prevention, and HIV treatment. Each statement is answered with “true”, “false”, or “I don’t know”. A single summary score is obtained by summing the number of correct items (“I don’t know” responses are scored incorrect). Higher scores indicate greater knowledge. Eight local and national HIV/AIDS educators and researchers assessed the instrument for content validity. Additionally, six HIV experts provided critiques of the items, wording, content, and relevance to HIV risk reduction. Item analyses, factor analyses, and confirmatory factor analyses were performed. The result was found that one core factor emerged from a

confirmatory factor analysis, which labeled HIV Knowledge. It was found that there were no significant relationships between HIV-KQ and potentially biasing constructs such as social desirability, mood, and self-esteem. However, the HIV-KQ scores were significantly correlated with higher levels of educational attainment ($r = .48$, $p < .0001$). This questionnaire was tested for its internal consistency with Cronbach's Alpha. Alpha for the total sample was .91 and the test-retest stability across 3 intervals, 1 week ($r = .83$), 2 week ($r = .91$), and 12-week interval ($r = .90$).

AIDS Attitude Scale (AAS).

AIDS Attitude Scale (AAS; 21 items) was developed by Froman et al. (1992). The questionnaire consists of two correlated subscales: Avoidance and Empathy toward HIV/AIDS. The correlation between the Empathy and Avoidance factors was $-.56$. The stability estimates ranged from .85 to .90. There are 14 items concerning avoidance attitude and 7 items concerning empathy attitude. Each item is rated by using a six-point Likert scale, ranging from strongly disagree to strongly agree. Each item is scored ranging from 1 for strongly disagree to 6 for strongly agree. Individual items on the questionnaire pertaining to the avoidance subscale include items 1 to 5, items 8 to 11, items 14, 15, and items 19 to 21. A high score on this subscale indicates strong avoidance to patients with HIV/AIDS. The rest of the items on the questionnaire pertain to the empathy subscale. A high score of this subscale indicates strong empathy. The total score of the AIDS attitude scale (Empathy minus Avoidance)

may range from –5 to + 5. Positive scores indicate a supportive attitude, and negative scores imply an intolerant, non-therapeutic attitude.

The AAS questionnaire has been used in more than 30 research studies (Froman & Owen, 1997). In addition, it has been used to evaluate the effectiveness of curricula directed at nursing students' attitudes toward persons with AIDS and to compare Arizona nursing students' attitudes at different levels in their nursing education (Magenheim, 1995).

Caring Survey.

The Caring Survey is an instrument developed by Jordan (1991) with the purpose of measuring nursing students' willingness to provide care to patients with AIDS. It consists of 14 items in which seven statements are statements of a positive nature and the other seven statements are statements of a negative nature. Each statement is rated by using a five-point Likert scale, ranging from strongly agree to strongly disagree. Score of 0, 1, 2, 3, and 4 are assigned to response choices for each of the five responses. The positive items are scored ranging from 0 for strongly agree to 4 for strongly disagree. The negative items are scored in reverse order, 4 for strongly agree to 0 for strongly disagree. If a person answers 2 to any question (positive or negative statement), this answer includes neutrality and remains the same. A single score is obtained for each respondent by summing the numerical value of each item response. The possible scores for an individual answering the 14-item Caring survey are ranged from 0 to 56. Scores 14 and below are designated as willingness to care. Scores

15-28 are designated as neutrality to care. Scores above 28 are identified as unwilling to care. The content validity of this instrument was based on the review of AIDS literature and the evaluation of the instrument by the panel. The Caring Scale has a high reliability with Cronbach alpha .92 (Jordan, 1991).

Figure 2 (below) is a summary of the instruments with details as to their scoring.

Figure 2. Instruments used in surveying U.S. and Thai nursing students regarding HIV knowledge, AIDS Attitudes and Caring.

Instruments	Construct	Range of Scores	Interpretations
HIV KQ	Knowledge	0-45	↑ score = ↑ Knowledge
AIDS Attitude	Attitude	Empathy-Avoidance (range -5 to + 5)	+ score = supportive attitude - score = intolerant, non-therapeutic attitude
Empathy	Empathy	1-42	↑ score = strong empathy
Avoidance	Avoidance	1-84	↑ score = strong avoidance
Caring Survey	Caring for HIV/AIDS patients	0-56	≤ 14 = willingness to care 15-28 = neutrality to care > 28 = unwilling to care

Development of the Thai Instruments

These three questionnaires (HIV-KQ-45, AIDS Attitude Scale, and the Caring Survey) were translated from the original English version into a Thai version and were examined for content validity by a panel of five experts. Translation/Back translation using the procedure described by Behling and Law (2000) involves four steps: (a) a bilingual individual translates the source

language instrument into the target language; (b) a second bilingual individual with no knowledge of the wording of the original source language document translates this draft target language back into the source language; (c) the original and the back-translated source language versions are compared; (d) if the differences occur between the two source language documents, the targeted language draft is modified to reduce or eliminate the discrepancies until it contains only minor differences.

Phase I: Forward and Back-Translation.

The principal investigator applied Behling and Law's procedure of back-translation to increase translation accuracy and the instruments were translated using the following procedures. The original English versions of HIV Knowledge Questionnaire (HIV-KQ-45), AIDS Attitude Scale (AAS), and Caring Survey were translated into Thai Language (Thai-Draft 1) by two Thai individuals who were bilingual in English and Thai. Two other bilingual Thai individuals did the back-translation of the Thai-Draft-1.

The two Thai bilinguals who translated the original English version of these instruments checked the quality of the back-translated English version of Thai-Draft 1 and electronically discussed with the other two back-translators about the problems in the back translation. Two back-translators mentioned problems in the translating process on two items; one item was the item number 41 of the HIV-knowledge and another item was the item number 13 of the Caring Survey questionnaires. These two problematic items were brought into a

discussion on the issue of the choice of terms, the sentence structures used and their meanings. Finally, the two translators and the two back-translators agreed that the original English version and the back-translated English version still had some differences; therefore, the principal investigator made a revision on the Thai- Draft1 on these two items (item number 41 of Thai version on HIV-KQ and item number 13 of Thai version on the Caring survey). This resulted in the Thai-Draft 2 (as shown in Table 1).

Table 1

Examples of two back-translated items generated from Thai-Draft 1 that assisted in producing Thai-Draft 2

Instrument	Item	Version	Item statements
HIV-KQ	41	Original	<u>Washing drug use equipment/ “works”</u> with cold water kills HIV.
		Thai-Draft 1	<u>การชำระล้างอุปกรณ์ที่ใช้กับยาด้วยน้ำเย็นจะสามารถฆ่าเชื้อ HIV ได้</u>
		Back-translated	<u>Cleaning medical equipment (using)</u> with cold water can kill the HIV germs.
		Thai-Draft 2	<u>การทำความสะอาดอุปกรณ์ทางการแพทย์ด้วยน้ำเย็นสามารถฆ่าเชื้อ HIV ได้</u>
Caring Survey	13	Original	<u>I prefer not to care for</u> an intravenous drug abuser who has AIDS.
		Thai-Draft 1	<u>ฉันพึงพอใจในการที่จะไม่ให้การดูแลผู้ป่วยที่เป็นโรคเอดส์จากการติดยาเสพติดชนิดฉีดเข้าทางหลอดเลือดดำ</u>
		Back-translated	<u>I am satisfied if I did not take care of a client</u> who is infected AIDS from drug injection.
		Thai-Draft 2	<u>ฉันรู้สึกพอใจถ้าหากว่าฉันไม่ได้ดูแลผู้ป่วยโรคเอดส์จากการติดยาเสพติดชนิดฉีดเข้าทางหลอดเลือดดำ</u>

Phase II: Equivalency, Interpretability, and Cultural Consistency.

After the back-translation was completed, the next phase was for the panel of experts to review the translation and back-translation and compare the back-translated English version with the original English version. Flaherty et al. (1988) and Beck, Bernal, and Froman (2003) listed the five major dimensions for cross-cultural equivalence including (a) content equivalence, which focuses on the cultural relevance of the content of each of an instrument's items to the culture being targeted for investigation; (b) semantic equivalence, which focuses on whether the meaning of each item is the same in the cultures targeted after translation of the instrument into the language of each culture; (c) technical equivalence, which focuses on whether the method of data collection is comparable in each culture; (d) criterion equivalence, which focuses on interpretation of measurement whether the concept stays the same when compared with the norm for each culture; and (e) conceptual equivalence, which focuses on the ability of instrument to assess the same theoretical construct in each culture. An instrument can be cross-culturally equivalent on one or more of these dimensions.

In this phase, the principal investigator sent the letters of invitation to a panel of five experts who were doctorally prepared faculty members at Prince of Songkla University to check for equivalency of the negotiated back-translated English version and the original English version of the three questionnaires. These documents, which included the letters of invitation, the original English

version and the negotiated back-translated English version, were sent via an electronic mail and the Global express mail. Two experts in this panel were the same experts who did the back-translation of Thai-Draft1. Each item of the original English version of the three instruments and the negotiated back-translated English version were validated for conceptual equivalence and semantic equivalence.

A panel of five experts had an agreement that the negotiated back-translated version and the original English version were comparable in terms of their meanings although using the different terms and different sentence structures, such as using the terms "bleach versus whitening powder", "climax versus orgasm", "an unborn baby versus a fetus", "washing versus cleaning", "lambskin versus sheep skin", and "I prefer versus I am satisfied". Later, the principal investigator sent the Thai-Draft 2 to these five experts and requested them regarding the content validity index of Thai-Draft 2. A panel of experts agreed that the content of Thai-Draft 2 relevant to HIV Knowledge, Attitudes to AIDS, and Caring for patients with AIDS, respectively.

In addition, a panel of experts was concerned about the clarity of each item of the instruments. They made a correction on the item number 2, 9, 17, 22, 29, 30, and 41 of Thai-Draft 2 HIV-KQ; the item number 4, 7, and 12 of Thai-Draft 2 AAS; and the item number 4, 9, 10, 11, 13, and 14 of Thai-Draft 2 Caring Survey. Following their advice, the principal investigator made a revision

of Thai-Draft 2 to Thai-Draft 3. The Thai-Draft 3 was used to test for its readability, interpretability, and cultural consistency (as shown in Table 2).

Table 2

Examples of Thai-Draft 2 were examined for their content validity and that assisted in producing Thai-Draft 3

Instrument	Item	Version	Item statements
HIV-KQ	2	Original	There is a cure for AIDS.
		Thai-Draft 2	<u>มีวิธีการรักษาโรคเอดส์</u>
		Thai-Draft 3	<u>โรคเอดส์สามารถรักษาได้</u>
	9	Original	It is possible to get HIV when a person gets a tattoo.
		Thai- Draft 2	มีโอกาasเป็นไปได้ที่บุคคลจะติด <u>เชื้อ HIV</u> จากการ <u>สักภาพบนผิวหนัง</u>
		Thai-Draft 3	มีโอกาasเป็นไปได้ที่บุคคลจะติด <u>เชื้อไวรัสเอชไอวี</u> จากการ <u>สักบนผิวหนัง</u>
	17	Original	A person with HIV can look and feel healthy.
		Thai-Draft 2	บุคคลที่ <u>ติดเชื้อโรคเอดส์อาจจะถูกมองว่าเป็น</u> บุคคลที่มีสุขภาพดี
		Thai-Draft 3	บุคคลที่ <u>ติดเชื้อไวรัสเอชไอวีอาจจะดูว่าเป็น</u> บุคคลที่มีสุขภาพดี

Table 2

Examples of Thai-Draft 2 were examined for their validity and that assisted in producing Thai-Draft 3 (Cont' d).

Instrument	Item	Version	Item statements
HIV-KQ	22	Original	Women are always tested for HIV during their pap smears.
		Thai-Draft 2	ผู้หญิงจะได้รับการตรวจเพื่อหาเชื้อ HIV ทุกครั้ง ในระหว่างการตรวจภายใน
		Thai-Draft 3	ผู้หญิงจะได้รับการตรวจเพื่อหาเชื้อไวรัสเอชไอวี ทุกครั้งในระหว่างการตรวจภายใน
	29	Original	You can usually tell if someone has HIV by looking at them.
		Thai-Draft 2	ท่านสามารถบอกได้ว่าบุคคลใดมีการติดเชื้อ HIV ด้วยการมองแบบสำรวจไปยังบุคคลเหล่านั้น
		Thai-Draft 3	ท่านสามารถบอกได้ว่าบุคคลใดมีการติดเชื้อ ไวรัสเอชไอวีด้วยการมองจากภายนอก
30		Original	There is a female condom that can help decrease a woman's chance of getting HIV.
		Thai-Draft 2	ถุงยางอนามัยสำหรับผู้หญิงสามารถช่วยในการ ลดโอกาสในการติดเชื้อ HIV ได้
		Thai-Draft 3	ถุงยางอนามัยสำหรับผู้หญิงสามารถช่วยลด โอกาสในการติดเชื้อไวรัสเอชไอวีได้

Table 2

Examples of Thai-Draft 2 were examined for their validity and that assisted in producing Thai-Draft 3 (Cont' d).

Instrument	Item	Version	Item statements
HIV-KQ	41	Original	Washing drug use equipment/ “works” with cold water kills HIV.
		Thai-Draft 2	การทำความสะอาด <u>อุปกรณ์ทางการแพทย์</u> ด้วยน้ำเย็นสามารถ <u>ฆ่าเชื้อ HIV</u> ได้
		Thai-Draft 3	การทำความสะอาด <u>อุปกรณ์ฉีดยา</u> ด้วยน้ำเย็นสามารถ <u>ฆ่าเชื้อไวรัสเอชไอวี</u> ได้
AAS	4	Original	If I had to have contact with someone with AIDS, I would worry about putting my family and friends at risk of contracting the disease.
		Thai-Draft 2	<u>สมมติว่าฉันได้สัมผัสกับบุคคลที่เป็นโรคเอดส์</u> ฉันคงจะรู้สึกวิตกกังวลว่าคนในครอบครัวและเพื่อนๆของฉัน จะมีโอกาสเสี่ยงต่อการสัมผัสโรค
		Thai-Draft 3	<u>ถ้าฉันได้สัมผัสกับบุคคลที่เป็นโรคเอดส์</u> ฉันคงจะรู้สึกวิตกกังวลว่าคนในครอบครัวและเพื่อนๆของฉัน จะมีโอกาสเสี่ยงต่อการสัมผัสโรค

Table 2

Examples of Thai-Draft 2 were examined for their validity and that assisted in producing Thai-Draft 3 (Cont'd).

Instrument	Item	Version	Item statements
AAS	7	Original	It is especially important for hospital patients with AIDS to be treated in a caring manner.
		Thai-Draft 2	<u>ถือว่าเป็นประเด็นที่สำคัญอย่างยิ่งสำหรับผู้ป่วยที่เป็นโรคเอดส์ที่ได้รับการรักษาในโรงพยาบาล ควรจะได้รับการดูแลเอาใจใส่</u>
		Thai-Draft 3	<u>ผู้ป่วยโรคเอดส์ที่ได้รับการรักษาในโรงพยาบาล ควรได้รับการดูแลด้วยท่าที่เอาใจใส่</u>
	12	Original	A homosexual hospital patient's partner should be accorded the same respect and courtesy as the partner of a heterosexual patient.
		Thai-Draft 2	คู่ของผู้ป่วยโรคเอดส์ที่มีพฤติกรรมรักร่วมเพศสมควร <u>ได้รับการยอมรับนับถือเช่นเดียวกับ</u> คู่ของผู้ป่วยโรคเอดส์ที่มีพฤติกรรมรักต่างเพศ
		Thai-Draft 3	คู่ของผู้ป่วยโรคเอดส์ที่มีพฤติกรรมรักร่วมเพศสมควร <u>ได้รับการต้อนรับยอมรับนับถือเช่นเดียวกับ</u> คู่ของผู้ป่วยโรคเอดส์ที่มีพฤติกรรมรักต่างเพศ

Table 2

Examples of Thai-Draft 2 were examined for their validity and that assisted in producing Thai-Draft 3 (Cont' d).

Instrument	Item	Version	Item statement
Caring Survey	4	Original	My family and friends are not concerned about associating with nurses who provide care for AIDS patients.
		Thai-Draft 2	<u>สมาชิกในครอบครัวของฉันและเพื่อนๆจะไม่ใส่ใจที่จะติดต่อกับพยาบาลที่ดูแลผู้ป่วยโรคเอดส์</u>
		Thai-Draft 3	<u>สมาชิกในครอบครัวและเพื่อนของฉันไม่รู้สึกกังวลที่จะติดต่อกับพยาบาลที่ดูแลผู้ป่วยโรคเอดส์</u>
	9	Original	I would leave nursing if I had to care for AIDS patients.
		Thai-Draft 2	ฉันอยากจะลาออกจากการเป็นพยาบาล <u>หากว่าฉัน</u> ต้องให้การดูแลผู้ป่วยโรคเอดส์
		Thai-Draft 3	ฉันอยากจะลาออกจากการเป็นพยาบาล <u>หากฉัน</u> ต้องให้การดูแลผู้ป่วยโรคเอดส์
10		Original	I prefer not to care for a homosexual patient who has AIDS.
		Thai-Draft 2	<u>ฉันพึงพอใจในการที่จะไม่ให้การดูแลผู้ป่วยรักร่วมเพศที่เป็นโรคเอดส์</u>

Table 2

Examples of Thai-Draft 2 were examined for their validity and that assisted in producing Thai-Draft 3 (Cont' d).

Instrument	Item	Version	Item statement
Caring Survey 10	11	Thai-Draft 3	<u>ฉันรู้สึกพึงพอใจที่ไม่ต้องดูแลผู้ป่วยที่รวมเพศที่เป็นโรคเอดส์</u>
		Original	I prefer not to care for a patient with AIDS.
		Thai-Draft 2	<u>ฉันพึงพอใจในการที่จะไม่ให้การดูแลผู้ป่วยที่เป็นโรคเอดส์</u>
	13	Thai-Draft 3	<u>ฉันรู้สึกพึงพอใจที่ไม่ต้องดูแลผู้ป่วยที่เป็นโรคเอดส์</u>
		Original	I prefer not to care for an intravenous drug abuser who has AIDS.
		Thai-Draft 2	<u>ฉันพึงพอใจในการที่จะไม่ให้การดูแลผู้ป่วยที่เป็นโรคเอดส์จากการติดยาเสพติดชนิดฉีดเข้าทางเส้นเลือดดำ</u>
	14	Thai-Draft 3	<u>ฉันรู้สึกพึงพอใจที่ไม่ต้องดูแลผู้ป่วยที่เป็นโรคเอดส์จากการติดยาเสพติดชนิดฉีดเข้าทางเส้นเลือดดำ</u>
		Original	I would consider working on an AIDS unit.
		Thai-Draft 2	<u>ฉันอยากจะคิดพิจารณาที่จะทำงานในแผนกที่ดูแลผู้ป่วยโรคเอดส์</u>
		Thai-Draft 3	<u>ฉันอยากจะคิดที่จะทำงานในแผนกที่ดูแลผู้ป่วยโรคเอดส์</u>

Phase III Testing the readability, interpretability, and cultural consistency.

Five Thai volunteer doctoral students who were bilingual and studied at University of Missouri-Columbia were asked to read each item of the Thai-Draft 3. They also were asked to write their comments and made notes regarding whether any words or phrases were difficult to understand. Based on their comments, minor modifications of the instruments were made. This process produced Thai-Draft 4. The Thai-Draft 4 was used to confirm the readability and interpretability. It was returned to the same five Thai volunteer doctoral students. These five volunteers were asked to read each item on Thai-Draft 3 and Thai-Draft 4 and then were asked which item on which questionnaire best conveys the meaning that the questions on each instrument is intended to express. Finally, this process guided the final draft of the Thai instruments (Thai-Draft 5) that were interpreted by Thai doctoral students who are bilingual (as shown in Table 3).

Table 3

Examples of Thai-Draft 3 were read and interpreted by Thai volunteer doctoral students that assisted in producing Thai-Draft 4 and Thai-Draft 5.

Instrument	Item	Version	Item statements
HIV-KQ	10	Thai-Draft 3	<u>มารดาที่ตั้งครรภ์และติดเชื้อไวรัสเอชไอวี</u> สามารถแพร่เชื้อไปสู่ทารกในครรภ์ได้
		Thai-Draft 4	<u>ผู้หญิงตั้งครรภ์ที่ติดเชื้อไวรัสเอชไอวี</u> สามารถแพร่เชื้อไปสู่ทารกในครรภ์ได้
		Thai-Draft 5	<u>ผู้หญิงตั้งครรภ์ที่ติดเชื้อไวรัสเอชไอวี</u> สามารถแพร่เชื้อไปสู่ทารกในครรภ์ได้
	13	Thai-Draft 3	การอาบน้ำหรือชำระล้างอวัยวะสืบพันธุ์ภายหลังการมีเพศสัมพันธ์จะทำให้บุคคลนั้น <u>ไม่ติดเชื้อเอดส์</u>
		Thai-Draft 4	การอาบน้ำหรือชำระล้างอวัยวะสืบพันธุ์ภายหลังการมีเพศสัมพันธ์จะทำให้บุคคลนั้น <u>ไม่ติดเชื้อไวรัสเอชไอวี</u>
		Thai-Draft 5	การอาบน้ำหรือชำระล้างอวัยวะสืบพันธุ์ภายหลังการมีเพศสัมพันธ์จะทำให้บุคคลนั้น <u>ไม่ติดเชื้อไวรัสเอชไอวี</u>
	22	Thai-Draft 3	ผู้หญิงจะได้รับการตรวจเพื่อหาเชื้อไวรัสเอชไอวีทุกครั้ง <u>ในระหว่างการตรวจภายใน</u>
		Thai-Draft 4	ผู้หญิงจะได้รับการตรวจเพื่อหาเชื้อไวรัสเอชไอวีทุกครั้ง <u>เมื่อมาตรวจภายใน</u>
		Thai-Draft 5	ผู้หญิงจะได้รับการตรวจเพื่อหาเชื้อไวรัสเอชไอวีทุกครั้ง <u>เมื่อมาตรวจภายใน</u>

Table 3

Examples of Thai-Draft 3 were read and interpreted by Thai volunteer doctoral students that assisted in producing Thai-Draft 4 and Thai-Draft 5 (Cont'd).

Instrument	Item	Version	Item statements
HIV-KQ	26	Thai-Draft 3	บุคคลมีแนวโน้มที่จะติดเชื้อไวรัสเอชไอวี <u>หากผ่าน</u> <u>การจูบชนิดที่ใช้ลิ้นดันเข้าไปในปากของอีกฝ่ายที่มี</u> <u>เชื้อไวรัสเอชไอวี</u>
		Thai-Draft 4	บุคคลมีแนวโน้มที่จะติดเชื้อไวรัสเอชไอวี <u>หากมีการ</u> <u>จูบชนิดที่ใช้ลิ้นดันเข้าไปในปากของผู้ที่มีเชื้อไวรัส</u> <u>เอชไอวี</u>
	26	Thai-Draft 5	บุคคลมีแนวโน้มที่จะติดเชื้อไวรัสเอชไอวีหากมีการ จูบชนิดที่ใช้ลิ้นดันเข้าไปในปาก <u>ของผู้ที่มีเชื้อไวรัส</u> <u>เอชไอวี</u>
	29	Thai-Draft 3	<u>ท่านสามารถบอกได้ว่าบุคคลใดมีการติดเชื้อ</u> <u>ไวรัสเอชไอวีด้วยการมองจากภายนอก</u>
		Thai-Draft 4	<u>โดยทั่วไปเราสามารถบอกได้ว่าบุคคลใดมีการติดเชื้อ</u> <u>ไวรัสเอชไอวีด้วยการมองจากภายนอก</u>
		Thai-Draft 5	<u>โดยทั่วไปเราสามารถบอกได้ว่าบุคคลใดมีการติดเชื้อ</u> <u>ไวรัสเอชไอวีด้วยการมองจากภายนอก</u>
	30	Thai-Draft 3	<u>ถ้อยงานามัยสำหรับผู้หญิงสามารถช่วยลดโอกาสใน</u> <u>การติดเชื้อเอชไอวีได้</u>

Table 3

Examples of Thai-Draft 3 were read and interpreted by Thai volunteer doctoral students that assisted in producing Thai-Draft 4 and Thai-Draft 5 (Cont'd)

Instrument	Item	Version	Item statements
HIV-KQ	30	Thai-Draft 4	<u>การใช้ถุงยางอนามัยสำหรับผู้หญิงสามารถช่วยลดโอกาสในการติดเชื้อเอชไอวีได้</u>
		Thai-Draft 5	<u>การใช้ถุงยางอนามัยสำหรับผู้หญิงสามารถช่วยลดโอกาสในการติดเชื้อเอชไอวีได้</u>
	34	Thai-Draft 3	<u>การทำการตรวจเพื่อหาเชื้อไวรัสเอชไอวีภายหลังการมีเพศสัมพันธ์แล้ว 1 สัปดาห์ จะสามารถบอกได้ว่าบุคคลนั้นๆมีการติดเชื้อไวรัสเอชไอวีหรือไม่</u>
		Thai-Draft 4	<u>การตรวจหาเชื้อไวรัสเอชไอวีภายหลังการมีเพศสัมพันธ์ 1 สัปดาห์ จะสามารถบอกได้ว่าบุคคลนั้นมีการติดเชื้อไวรัสเอชไอวีหรือไม่</u>
		Thai-Draft 5	<u>การตรวจหาเชื้อไวรัสเอชไอวีภายหลังการมีเพศสัมพันธ์ 1 สัปดาห์ จะสามารถบอกได้ว่าบุคคลนั้นมีการติดเชื้อไวรัสเอชไอวีหรือไม่</u>
AAS	3	Thai-Draft 3	<u>ผู้ป่วยที่มีผลเลือดบวก ซึ่งรับการพักรักษาในโรงพยาบาล ไม่สมควรที่จะถูกจัดให้อยู่ร่วมกับผู้ป่วยคนอื่น ๆ</u>

Table 3

Examples of Thai-Draft 3 were read and interpreted by Thai volunteer doctoral students that assisted in producing Thai-Draft 4 and Thai-Draft 5 (Cont'd)

Instrument	Item	Version	Item statements
AAS	3	Thai-Draft 4	<u>ผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี</u> ซึ่งเข้ารับการรักษาในโรงพยาบาล ไม่สมควรจะถูกจัดให้อยู่รวมห้องกับผู้ป่วยคนอื่นๆ
		Thai-Draft 5	<u>ผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี</u> ซึ่งเข้ารับการรักษาในโรงพยาบาล ไม่สมควรจะถูกจัดให้อยู่รวมห้องกับผู้ป่วยคนอื่นๆ
	4	Thai-Draft 3	<u>ถ้าฉันได้สัมผัสกับบุคคลที่เป็นโรคเอดส์ ฉันคงจะรู้สึกวิตกกังวลว่าคนในครอบครัวและเพื่อนๆของฉันจะมีโอกาสเสี่ยงต่อการสัมผัสโรค</u>
		Thai-Draft 4	<u>ถ้าฉันได้สัมผัสกับบุคคลที่เป็นโรคเอดส์ ฉันคงรู้สึกวิตกกังวลว่า คนในครอบครัวและเพื่อนๆของฉันจะมีโอกาสเสี่ยงต่อการติดเชื้อโรค</u>
		Thai-Draft 5	<u>ถ้าฉันได้สัมผัสกับบุคคลที่เป็นโรคเอดส์ ฉันคงรู้สึกวิตกกังวลว่า คนในครอบครัวและเพื่อนๆของฉันจะมีโอกาสเสี่ยงต่อการติดเชื้อโรค</u>
	7	Thai-Draft 3	<u>ผู้ป่วยโรคเอดส์ที่ได้รับการรักษาในโรงพยาบาลควรได้รับการดูแลด้วยท่าที่เอาใจใส่</u>

Table 3

Examples of Thai-Draft 3 were read and interpreted by Thai volunteer doctoral students that assisted in producing Thai-Draft 4 and Thai-Draft 5 (Cont'd)

Instrument	Item	Version	Item statements
AAS	7	Thai-Draft 4	<u>ผู้ป่วยโรคเอดส์ที่เข้ารับการรักษานในโรงพยาบาล</u> <u>ควรได้รับการเอาใจใส่และการดูแลที่ดี</u>
		Thai-Draft 5	<u>ผู้ป่วยโรคเอดส์ที่เข้ารับการรักษานในโรงพยาบาล</u> <u>ควรได้รับการเอาใจใส่และการดูแลที่ดี</u>
	17	Thai-Draft 3	ฉันต้องการจะทำบางสิ่งบางอย่างที่จะช่วยทำให้ ชีวิตของบุคคลที่ติดเชื้อโรคเอดส์ <u>มีความสุข</u> สบายมากขึ้น
		Thai-Draft 4	ฉันต้องการทำบางสิ่งบางอย่างที่จะช่วยให้บุคคลที่ ติดเชื้อโรคเอดส์ <u>มีชีวิตที่ดีขึ้น</u>
		Thai-Draft 5	ฉันต้องการทำบางสิ่งบางอย่างที่จะช่วยให้บุคคลที่ ติดเชื้อโรคเอดส์ <u>มีชีวิตที่ดีขึ้น</u>
Caring Survey	14	Thai-Draft 3	<u>ฉันอยากจะคิดที่จะทำงานในแผนกที่ดูแลผู้ป่วย</u> <u>โรคเอดส์</u>
		Thai-Draft 4	<u>ฉันคิดจะทำงานในหอผู้ป่วยที่ดูแลผู้ป่วยโรคเอดส์</u>
		Thai-Draft 5	<u>ฉันคิดจะทำงานในหอผู้ป่วยที่ดูแลผู้ป่วยโรคเอดส์</u>

Assessment of Psychometric Equivalence

After the process of readability and interpretation were achieved, the process of test reliability began. Reliability is defined as the ability of a tool to give consistent and dependable results. The instrument reliability can be established through parallel forms, test-retest, internal consistency or homogeneity, and equivalence, (Behling & Law, 2000; Meek & Verran, 1999; Polit & Beck, 2004). The principal investigator tested the adequacy of translation or the psychometric soundness of Thai-Draft 5 with the original English version by parallel forms reliability (Behling & Law, 2000). This method represented a triangulation onto the Thai-Draft 5. A new group of five bilingual Thai volunteer doctoral students participated in this process. They were asked to respond to the original English version and then a week later, they were asked to respond to the final Thai instrument version (Thai-Draft 5). The process of reliability was done twice because the first round, the five Thai volunteers responded to the English version as if they were nurses while they responded to the Thai version according to their own personal feelings. The differences in results of the first round responses were huge. Therefore, the principal investigator asked the same five Thai volunteers to take and retake the questionnaires. The second round of testing the reliability of the instruments began.

The data were entered and were analyzed using the SAS Program (SAS Institute Inc., Cary, NC, USA). Pearson's product moment correlation coefficient, a quantitative measure of the linear relationship, was used in order to estimate

the stability or the reproducibility of responses over time. The stability of the instruments was examined through parallel forms reliability. The results were found that there were no differences in the demographic and personal experience questions (other than for demographic question 5 and 6, which asked about the information related to ethnicity and religion). There were also no differences in the HIV Knowledge questionnaires in which these volunteers marked the same response on the two versions. However, there were a few differences on the AAS scale (item 3, 4, 8, and 20). The maximum difference was only 1 level and the difference occurred infrequently. For the Caring Survey Questions, the maximum difference was 1 level and it happened only once on item 13. Finally, the results of correlation between the scores on the English and Thai versions on each of subscales were all higher than 0.99 for the five subjects who completed the two surveys. This was shown in Table 4 below.

Table 4

Pearson Correlation Coefficients of the scores on each of the subscales (hiv_kq avoidance empathy general_att csq) between the English and Thai versions

Pearson Correlation Coefficients, N=5					
Prob> r under H ₀ : Rho = 0					
	t_hiv_kq	t_avoidance	t_empathy	t_general att	t_csq
hiv_kq	1.00000 <.0001	-0.64515 0.2398	0.76227 0.1341	0.77153 0.1265	-0.19737 0.7503
avoidance	-0.66340 0.2222	0.99377 0.0006	-0.68093 0.2057	-0.87428 0.0525	0.55570 0.3308
empathy	0.76227 0.1341	-0.70434 0.1842	1.00000 <.0001	0.94919 0.0136	-0.00246 0.9969
general_att	0.78470 0.1160	-0.89596 0.0396	0.94444 0.0156	0.99876 <.0001	-0.25097 0.6838
csq	-0.20727 0.7380	0.49083 0.4011	-0.02301 0.9707	-0.23226 0.7070	0.99964 <0.0001

Note. t_hiv_kq = Thai version of HIV Knowledge Questionnaire

t_avoidance = Thai version of avoidance subscale of AIDS Attitude Scale

t_empathy = Thai version of empathy subscale of AIDS Attitude Scale

t_general att = Thai version of AIDS Attitude Scale

t_csq = Thai version of Caring Survey

hiv_kq = English version of HIV Knowledge Questionnaire

avoidance = English version of avoidance subscale of AIDS Attitude Scale

empathy = English version of empathy subscale of AIDS Attitude Scale

general_att = English version of AIDS Attitude Scale

csq = English version of Caring Survey

Settings

Four universities were selected to be a part of this research study.

The two universities located in the United States were New York University (NYU) and University of Missouri-Columbia (MU). The other two universities were Chiang-Mai University (CMU) and Prince of Songkla University (PSU) in Chiang-Mai and Hat Yai, Thailand respectively. New York City was chosen for one of the US sites because it has been in the top ten of high HIV/AIDS prevalence areas in the United States (National Center for HIV, STD and TB prevention, Divisions of HIV/AIDS prevention, 2005). The Missouri site was chosen because it is a state with a low HIV/AIDS prevalence.

Thailand is located in the heart of South-East Asia with an area of 513,115 square kilometers (198,114 square miles). The size of Thailand is approximately that of France. It is bordered by Myanmar in the west, Laos in the north- east, Cambodia in the east and Malaysia in the south. The landmass is divided into four regions, including the North, the Central Plains, the North- east, and the South. In addition, Northern Thailand covers about one-quarter of the nation's area and is juxtaposed with Myanmar while the Southern peninsula is a long narrow piece of land with a steep mountainous spine and is juxtaposed with Malaysia (Hoskin & Cubitt, 2000).

The northern region of Thailand consists of 17 provinces, which are categorized into zone 08, zone 09, and zone 10 by the Ministry of Public Health. Chiang-Mai is the biggest province that is grouped in the zone10 (Division of

Epidemiology, Ministry of Public Health, Thailand, 1999). It has the highest HIV/AIDS prevalence in the north and is the second highest HIV/AIDS prevalence area in Thailand (Division of Epidemiology, Ministry of Public Health, Thailand, 2002). Chiang-Mai University's Faculty of Nursing was selected to be a research setting because it is located in the high HIV/AIDS prevalence area and it is the largest regional nursing academic institution in the northern part of Thailand.

In contrast, the southern region of Thailand consists of 14 provinces, which are categorized into zone 11 and zone 12. Songkhla province is categorized into zone 12 (Division of Epidemiology, Ministry of Public Health, Thailand, 1999). Songkhla has the second highest HIV/AIDS prevalence rate in the south and is ranked tenth among the highest HIV/AIDS prevalence areas in Thailand (Division of Epidemiology, Ministry of Public Health, Thailand, 2002). Hat-Yai, which is a metropolitan area, is located in Songkhla province. Prince of Songkla University's Faculty of Nursing is the biggest regional nursing academic institution in the southern part of Thailand. Both Chiang-Mai's Faculty of Nursing and Prince of Songkla's Faculty of Nursing have historically been accredited by the Thai Nursing Council as to provide baccalaureate nursing programs.

Population and Sample

The participants in this study are U.S. and Thai senior baccalaureate nursing students who have studied at New York University, University of Missouri-Columbia, Chiang-Mai University and Prince of Songkla University.

Respondents of this study come from convenience samples from the schools of nursing at the four universities. The eligibility criteria included 1) either U.S. or Thai senior baccalaureate nursing student; 2) studying either at New York University, University Missouri-Columbia, Chiang-Mai University or Prince of Songkla University. The sample size was approximately 50 participants per setting. Comparing two groups within the country, the principle investigator was able to detect the effect size of 0.57 when doing a two-sample T-test and a two-sided alternative hypothesis, using a significance level of .05 and a power of 0.8. If the significance level was taken to be .01, then the detectable effect size would be 0.70. Effect size is defined as the difference in-group means divided by the common standard deviation ($\Delta = (\mu_1 - \mu_2) / \sigma$) (Burns & Grove, 2001).

Data Collection

Data collection at each setting began after the principal investigator received the letter of permission from each institution; the Health Sciences Institutional Review Board of University of Missouri-Columbia, the University Committee on Activities Involving Human Subjects (UCAIHS) New York University, the Institutional Review Board of Chiang-Mai University, and that of Prince of Songkla University. In addition, Deans or Associate Deans of Academic Affairs and Faculty Sponsors of each university were contacted and their permission was requested to collect the data from senior nursing students at their schools of nursing.

The principal investigator or a faculty sponsor advertised and invited students to participate in this research study. These advertisements were posted on the boards in the student mailroom and at the student campus apartments. Advertisements noted that participation was totally voluntary and that each U.S nursing students would receive \$5 dollars and Thai nursing students would receive 50 Bahts. However, the UCAIHS at New York University recommended a red ribbon sticker for each student instead of the monetary incentives. Additionally, Chiang-Mai University, and Prince of Songkla University received a red ribbon sticker to show their support for HIV victims.

University of Missouri-Columbia.

At the University of Missouri-Columbia, the process of getting the IRB permission took from August 1, 2005 to August 2, 2005. After receiving the IRB permission, the principal investigator requested the permission from Associate Dean Academic Affairs of the MU Sinclair School of Nursing. The principal investigator contacted two faculty members who taught two senior classes. The principal investigator asked for their permission and also made the appointments to come to their classes in order to meet with senior nursing students. At the appointment time of each class, the principal investigator informed senior nursing students about the research study and invited them to participate in the research project.

After one month of posting the advertisements, only seven senior nursing students came to participate in the study. The principal investigator consulted

with her dissertation supervisor about this issue. The dissertation supervisor and the principal investigator contacted another faculty member who taught another senior class and asked for help. This instructor allowed the principle investigator to come to her class. At the first thirty-minutes of class time, the principal investigator again invited senior nursing students to participate. Packets with questionnaires and monetary incentives, which were prepared before the class, were distributed to the students. Forty-nine senior students from that class participated. Since all but one person of the original seven students who answered the questionnaire were in this class, these 6 students' original questionnaires were discarded and the 7th student's questionnaire was kept, leaving a sample of 50 students with complete data from MU Sinclair School of Nursing. The data collection started on August 22, 2005 and was completed on September 28, 2005.

New York University.

At New York University, the process of getting the UCAIHS permission took from September 10, 2005 to January 18, 2006. After receiving permission from the UCAIHS, the faculty sponsor at that university advertised the research study to possible participants. The UCAIHS New York University stated that the data collection could be done during class time. The faculty sponsors approached around 90 students and only 49 senior nursing students participated and completed the questionnaires out of class time. After they completed the questionnaires, they returned them back to the faculty sponsor. The data

collection started on February 3, 2006 and was completed on May 19, 2006.

Prince of Songkla University.

At the Faculty of Nursing, Prince of Songkla University, the process of getting the permission took from February 15, 2006 to February 27, 2006. The Ethics Committee approved that the data could be done in the classroom. After receiving permission from the Ethics Committee, the faculty sponsor at that university advertised the research study to possible participants. Fifty-five senior nursing students participated in the study. The data collection was completed on February 28, 2006.

Chiang-Mai University.

At the Faculty of Nursing, Chiang-Mai University, the process of getting the permission took from March 24, 2006 to May 14, 2006. After receiving permission from the Ethics Committee, the faculty sponsor at that university advertised the research study to possible participants. Fifty senior nursing students participated and responded to the questionnaires but outside of class time. The data collection was completed on June 8, 2006.

Procedure

Senior students at each setting received an unsealed packet, in the appropriate language, that contained a letter of invitation to participate and a Project Summary Statement explaining the study. This summary included the title and purposes of the study, assurance of anonymity and confidentiality, the right to withdraw participation at any time, and the expected benefits of the

research. Also in the unsealed packet was the monetary incentive, the red ribbon sticker, the questionnaires, and a seal for the packet, so that after the students completed the questionnaires, the packets could be sealed.

A drop box was provided at the back of the classroom in which students could place their sealed packets. The packets were retrieved by the principal investigator or faculty sponsor. Each student was welcome to keep the red ribbon sticker, even if they chose not to participate in the study.

Data Analysis

From the beginning of this research study, the principal investigator consulted with an expert statistician regarding statistical issues. When the principal investigator received the questionnaire data back from the participants, she doubled entered the data on Microsoft Excel spreadsheets. After double entry was completed, the data was cleaned by the statistician using the SAS Program on the command "proc (procedure) compare". When a report of error occurred, the principal investigator rechecked the error points with the original responses of participants from each setting and made a correction on the spreadsheets and then sent back to the statistician to be compared again.

Demographic data (see questionnaire in Appendix) were analyzed by calculating frequency, percentage, mean and standard deviation for variables categorized in ratio scale; frequency and percentage for variables categorized in nominal scale and ordinal scale. For the questionnaire data, the statistic analysis included:

1. Chi-Square Tests were used for comparing categorical variables and Wilcoxon Rank Sum Tests were used for comparing two paired groups, based on the relative ranking of values between the pairs.
2. A two-way analysis of variance was used to examine the effect of Country and Prevalence (High/Low).
3. Analysis of covariance (ANCOVA) was not used because there was no statistical relationship between covariates and the outcome variables.

Protection of Human Subjects

Senior baccalaureate nursing students participated voluntarily in this study, with freedom to withdraw at any time. Participants were fully informed about the nature and purposes of study. No names or identifying information could be traced to the individual participants. The confidentiality of the participant's response was ensured by keeping the completed instruments and other documents in a locked receptacle. Participation in this study posed no danger of physical or psychological risks to participants. The benefits and an incentive of participation in this study included (a) Participation in building a body of knowledge for nursing education and practice; (b) Receipt of the monetary incentive and a red ribbon sticker that signified support for HIV victims.

CHAPTER 4

Results

Data were collected from 49 U.S. senior nursing students at New York University, 50 U.S. senior nursing students at University of Missouri-Columbia, 50 Thai senior nursing students at Chiang-Mai University, and 55 Thai senior nursing students at Prince of Songkla University. The data were analyzed and the findings are presented as follows:

Table 5
Demographic Characteristics of U.S. and Thai senior nursing students by the Chi-Square Test for comparing categorical variables and the Wilcoxon Rank Sum Test for comparing continuous variables

Variables	U.S. (n = 99)		Thai (n = 105)	
	N (%)	Mean (SD)	N (%)	Mean (SD)
Years of age		24.49 (4.79)		21.93 (0.79)***
Gender				
Male	7 (7.07)		0 (0.00)	
Female	92 (92.93)		105 (100.00)	
Marital Status				
Single	76 (76.77)		105 (100.00)***	
Married/Cohabiting	23 (23.23)		0 (0.00)	

*** p < .0001

A comparison of age, gender and marital status of U.S. senior nursing students compared to those of Thai senior nursing students is summarized in Table 5. At the .01 level, there are significant differences between age and marital status of U.S. senior nursing students and Thai senior nursing students ($p < .0001$).

Regarding ethnicity, the majority of U.S. senior nursing students are Caucasian (71%) while all Thai senior nursing students are Thai (100%). The most frequently reported religion in U.S. students is Catholic (43%) followed by no formal religion affiliation (24%). Other reported religions are Protestant (12%), Jewish (4%), Buddhist (2%), Muslim (1%), and other (13%). Buddhist (90%) is the predominant religion reporting in Thailand with an additional 10% of Thai students identifying as Muslims. This is reflective of the general populations where each of these senior nursing students resides.

A comparison of the importance of religion of U.S. senior nursing students to that of Thai senior nursing students is summarized in Table 6 below.

Table 6
Demographic Characteristics of U.S. and Thai senior nursing students for those reporting religious affiliation by Chi-square test

Variable	U.S. (n = 83)	Thai (n = 105)
	N (%)	N (%)
Importance of religion		
Not at all important	3 (3.06)	0 (0.00)
Slightly important	14 (14.29)	1 (0.95)
Moderately important	30 (30.61)	31 (29.52)
Very important	23 (23.47)	56 (53.33)
Extremely important	12 (12.24)	17 (16.19)

*** p < .0001

There are significant differences between reporting the importance of religion of U.S. senior nursing students and that of Thai senior nursing students at the .01 level ($p < .0001$). Based on these data, it appears that Thai senior nursing students feel religion is more important.

Table 7 (below) compares country-specific means and standard deviations for students 1) clinical hours with HIV/AIDS patients during the current week, 2) total clinical hours with HIV/AIDS patients for the entire nursing education, 3) number of HIV/AIDS patients cared for during the current week, 4) total number of HIV/AIDS patients cared for during the entire nursing education, and finally, the total hours of HIV/AIDS classroom education during the nursing school. The Wilcoxon Rank Sum test is used for comparing these continuous variables.

Table 7
Mean scores of students' of clinical experiences caring for HIV/AIDS patients in the U.S. and in Thailand

Variables	U.S. (n = 99)	Thai (n = 105)
	Mean (SD)	Mean (SD)
Hrs/current wk cared for	0.35 (1.36)	5.73 (11.35)***
Total Hrs cared for	5.67 (11.41)	30.26 (43.45)***
Numbers of HIV patients		
Cared for/ current week	0.05 (0.22)	0.42 (0.80)***
Total HIV patients cared for	1.10 (1.86)	2.42 (2.38)***
Hours of HIV/AIDS Classroom Education	5.06 (7.72)	5.33 (7.69)

*** p < .0001

As can be seen, there were significant differences in clinical experiences for the U.S. compared to the Thai students. All comparisons show significant differences at less than the .01 level ($p < .0001$) the exception being the total hours of HIV/AIDS classroom education each student had within their nursing school curriculum. Based on these data, Thai students consistently had more hands-on experience in caring for HIV/AIDS patients. However, no difference in classroom education was found.

Table 8
Frequency and percentage of information resources related to HIV/AIDS
Chi-square test is used for comparing categorical variables

Variables	U.S. (n = 99)	Thai (n = 105)
	N (%)	N (%)
HIV/AIDS resources		
Library	47 (47.47)	88 (83.81)***
Word of mouth	63 (63.64)	80 (76.19)
Official Agencies (CDC, MOPH)	53 (53.54)	31 (29.52)
Local agencies	21 (21.21)	35 (33.33)
Internet	81 (81.82)	91 (86.67)
Television	58 (58.59)	99 (94.29)***
Radio	11 (11.11)	37 (35.24)***
Print Media (Magazine, Posters)	13 (13.13)	16 (15.24)

*** $p < .0001$

A comparison of the academic and non-academic resources used to gain information about HIV/AIDS of U.S. and Thai students is summarized in Table 8 above. There are significant differences between the use of HIV/AIDS resources for the library, television, and radio of U.S. students and the Thai students at less than the .01 level ($p < .0001$). It appears that Thai students are more likely to pursue information from the library and are more attuned to relevant information from popular media sources.

Table 9 (below) presents the simple mean scores for each research instrument for all U. S. nursing students and for all Thai nursing students regardless of the prevalence of HIV/AIDS in each area.

Table 9

The mean scores on each questionnaire for all students from the U. S. and all students from Thailand regardless of prevalence of HIV/AIDS

Variables	U.S. (n = 99)	Thai (n = 105)
	Mean (SD)	Mean (SD)
HIV-KQ Score	39.57 (3.59)	35.03 (4.44)
Empathy Score	5.31 (0.60)	5.03 (0.66)
Avoidance Score	2.22 (0.75)	2.76 (0.59)
AIDS Attitude Score	3.08 (1.16)	2.28 (1.06)
Caring Score	14.75 (8.76)	19.07 (6.87)

Although there are no significant differences in the scores for the HIV-KQ, the Empathy, and the AIDS Attitude, or the Caring Scale the U.S. students' scores are generally better than those of Thai students.

Table 10 (below) presents the simple mean scores on each research instrument when the scores were averaged for students in high and low HIV/AIDS prevalence areas (i.e. Chiang-Mai University's and New York University's scores were combined; and Prince of Songkla University's and University of Missouri-Columbia's scores were combined).

Table 10

Mean scores on each of the research instrument for the high and low HIV/AIDS prevalence areas with both countries (i.e. Chiang-Mai University's and New York University's scores were combined; and Prince of Songkla University's and University of Missouri-Columbia's scores were combined)

Variables	High Prevalence (n = 99)	Low Prevalence (n = 105)
	Mean (SD)	Mean (SD)
HIV-KQ Score	36.67 (5.72)	37.76 (3.25)
Empathy Score	5.28 (0.63)	5.06 (0.64)
Avoidance Score	2.36 (0.73)	2.63 (0.69)
AIDS Attitude Score	2.92 (1.13)	2.43 (1.18)
Caring Score	15.93 (8.05)	17.98 (8.09)

Again, no significant differences were found. However, the mean score on the HIV-KQ for the high HIV/AIDS prevalence area is lower than that of the

low HIV/ AIDS prevalence area. The mean scores of the Empathy and AIDS Attitude are higher in the high HIV/AIDS prevalence area than that in the low HIV/AIDS prevalence area. Also, students from the high prevalence area scored better (less avoidance) than students in the low prevalence area and also more caring.

Table 11 (below) presents the simple mean scores on the research instruments between U.S. and Thai nursing students based on the prevalence of HIV/AIDS in each area.

Table 11
Mean scores for students in the U.S. and Thailand by prevalence (High vs. Low) of HIV/AIDS patients in the area where the university is located

Variables	U.S. High (NYU) (n = 49)	U.S. Low (MU) (n = 50)	Thai High (CMU) (n = 50)	Thai Low (PSU) (n = 55)
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
HIV-KQ Score	39.94 (4.23)	39.20 (2.81)	33.46 (5.16)	36.46 (3.08)
Empathy Score	5.48 (0.57)	5.14 (0.59)	5.09 (0.64)	4.98 (0.67)
Avoidance Score	1.95 (0.66)	2.49 (0.74)	2.76 (0.54)	2.75 (0.62)
AIDS Attitude Score	3.53 (0.98)	2.65 (1.17)	2.32 (0.95)	2.23 (1.17)
Caring Score	12.51 (7.80)	16.98 (9.17)	19.28 (6.83)	18.87 (6.95)

Regardless of prevalence of HIV/AIDS, students in the U.S. had higher scores on the HIV-KQ than Thai students. In fact, Thai students from the high

prevalence area had the lowest mean score for all four groups, but they were also at the beginning of their senior year whereas the other three groups were surveyed at the end of their nursing programs. The mean scores of the empathy and avoidance subscales of the AIDS Attitude Questionnaire do not show marked differences but the students in the high prevalence area of the U.S. appear to have less avoidance, better attitudes and more caring than any of the other students.

To measure whether clinical experiences [i.e. clinical hours with HIV/AIDS patients during the current week (PE8), total clinical hours with HIV/AIDS patients for the entire nursing education (PE9), number of HIV/AIDS patients cared for during the current week (PE10), total number of HIV/AIDS patients cared for during the entire nursing education (PE11), and the total hours of HIV/AIDS classroom education during the nursing school (PE12)] had any relationship with the mean scores presented in Table 11, the Spearman correlation was run to identify the magnitude of relationships among these covariates with the mean scores on knowledge, attitudes and caring of HIV/AIDS patients.

As can be seen in Table 12, no significant correlations of the covariates with the mean scores of any of the research instruments were significant. Therefore, the covariates were dropped from further analysis. In other words, clinical experiences, although significantly different in Thai students as seen in

Table 7, did not contribute to the differences in the student's mean scores on the questionnaires (Table 11).

Table 12

Spearman Correlation Coefficients of mean student scores by clinical experiences by country of study

Spearman Correlation Coefficients (U.S.) Prob >/r/ under H0: Rho = 0					
	PE8	PE9	PE10	PE11	PE12
HIV-KQ	-0.09763 (0.3440)	-0.13046 (0.2028)	-0.01757 (0.8644)	-0.08109 (0.4297)	0.12414 (0.2282)
AAS	-0.08617 (0.4039)	-0.17054 (0.0949)	0.02665 (0.7956)	-0.16989 (0.0962)	0.11394 (0.2690)
Caring	-0.06377 (0.5392)	-0.08284 (0.4223)	-0.10669 (0.3008)	-0.07593 (0.4622)	-0.12472 (0.2285)

Spearman Correlation Coefficients (Thailand) Pro > /r/ under H0: Rho = 0					
	PE8	PE9	PE10	PE11	PE12
HIV-KQ	0.26687 (0.0073)	0.24143 (0.0131)	0.24041 (0.0140)	0.07642 (0.4384)	0.29963 (0.0025)
AAS	0.15062 (0.1347)	0.10407 (0.2908)	0.05936 (0.5495)	0.01463 (0.8822)	0.25457 (0.0106)
Caring	-0.29744 (0.0027)	-0.22199 (0.0228)	-0.13828 (0.1616)	-0.07015 (0.4770)	-0.20939 (0.0365)

Note. PE8 = Clinical hours with HIV/AIDS patients during the current week
 PE9 = Total clinical hours with HIV/AIDS patients for the entire nursing education
 PE10 = Number of HIV/AIDS patients cared for during the current week
 PE11 = Total number of HIV/AIDS patients cared for during the entire nursing education
 PE12 = The total hours of HIV/AIDS classroom education during the nursing school

Because of the differences seen in Table 11 in the mean scores between countries and prevalence areas, pairwise comparisons were made. Table 13, 14, and 15 show these comparisons. As can be seen, significant differences were found in HIV knowledge, attitudes, and caring when the prevalence of HIV/AIDS in the areas where the students were studying was taken into consideration.

Table 13

The effect of Country for each level of Prevalence and the effect of Prevalence for each level of Country on HIV-KQ Scores by Pairwise comparison

Country	Prevalence	Country	Prevalence	Estimate	SE	T	Pr> /t/
Thai	High	Thai	Low	-2.99	.75	-4.01**	<.0001
Thai	High	US	High	-6.73	.78	-8.67**	<.0001
Thai	Low	US	Low	-2.87	.75	-3.82**	0.0002
US	High	US	Low	0.87	.78	1.11	0.2691

** p< .01, two-tailed.

For AIDS knowledge, there are significant differences between students for all pairwise combinations except the difference between high and low prevalence within the U.S.

Table 14

The effect of Country for each level of Prevalence and the effect of Prevalence for each level of Country on AIDS Attitude Scale (AAS) by Pairwise comparison

Country	Prevalence	Country	Prevalence	Estimate	SE	T	Pr > t
Thai	High	Thai	Low	.88	.21	.42	0.6726
Thai	High	US	High	-1.28	.22	-5.93**	< .0001
Thai	Low	US	Low	-.45	.21	-2.15	0.0332
US	High	US	Low	.92	.22	4.24**	< .0001

**p< .01, two-tailed.

A difference was found in students' attitudes between countries for high prevalence. Further, there was a significant difference between high and low prevalence for the U.S.

Table 15

The effect of Country for each level of Prevalence and the effect of Prevalence for each level of Country on Caring Survey by Pairwise comparison

Country	Prevalence	Country	Prevalence	Estimate	SE	T	Pr > t
Thai	High	Thai	Low	0.41	1.51	0.27	0.7883
Thai	High	US	High	6.75	1.57	4.29**	<.0001
Thai	Low	US	Low	1.96	1.53	1.28	0.2029
US	High	US	Low	-4.38	1.59	-2.76**	0.0064

**p< .01, two-tailed.

As with students' attitudes, a difference was found in the level of caring between countries with high prevalence. Further, there was a significant difference in students' level of caring between high and low prevalence areas in the U.S.

The results that have been presented will now be discussed as they relate to each of the proposed hypothesis.

Hypothesis 1: Mean scores of HIV knowledge, attitudes, and caring for HIV/AIDS patients of U.S. senior baccalaureate nursing students are significantly different from those of Thai senior baccalaureate nursing students.

Findings: This hypothesis was rejected because no differences were found when overall mean scores were combined for each country (Table 9).

Hypothesis 2: Mean Scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of U.S. senior baccalaureate nursing students who are studying in high HIV/AIDS prevalence area are significantly different from those of U.S. senior baccalaureate nursing students who are studying in low HIV/ AIDS prevalence area.

Findings: From Table 13, 14, and 15, one can see that some of the outcome variables were supported by the research findings and some variables were not.

In terms of HIV Knowledge.

There were no significant differences of HIV Knowledge scores between U.S. senior baccalaureate nursing students who studied in the high HIV/AIDS prevalence area (NYU) and those who studied in the low HIV/AIDS prevalence area (MU) at the .01 level ($p = .27$).

In terms of AIDS Attitudes.

There were significant differences of AIDS Attitude scores between U.S. senior baccalaureate nursing students who studied in the high HIV/AIDS

prevalence area (NYU) (better attitude) and those who studied in the low HIV/AIDS prevalence area (MU) (less positive attitude) at the .01 level ($p < .0001$).

In terms of the Caring Survey.

There were significant differences of Caring scores between U.S. senior baccalaureate nursing students who studied in the high HIV/AIDS prevalence area (NYU) (more caring) and those who studied in the low HIV/AIDS prevalence area (MU) (less caring) at the .01 level ($p < .0064$).

Hypothesis 3: Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of Thai senior baccalaureate nursing students who are studying in high HIV/AIDS prevalence area are significantly different from those of Thai senior baccalaureate nursing students who are studying in low HIV/ AIDS prevalence area.

Findings: From Tables 13, 14, and 15, the followings show that some of the outcome variables were supported by the research findings and other variables were not.

In terms of HIV Knowledge.

There were significant differences of HIV Knowledge scores between Thai senior baccalaureate nursing students who studied in the high HIV/AIDS prevalence area (CMU) (less knowledge) and those of Thai senior baccalaureate nursing students who studied in the low HIV/AIDS prevalence area (PSU) (more knowledge) at less than the .01 level ($p < .0001$).

In terms of AIDS Attitude.

There were no significant differences of AIDS Attitude scores between Thai senior baccalaureate nursing students who studied in the high HIV/AIDS prevalence area (CMU) and those of Thai senior baccalaureate nursing students who studied in the low HIV/AIDS prevalence area (PSU) at the .01 level ($p = .67$).

In terms of the Caring Survey.

There were no significant differences of Caring scores between Thai senior baccalaureate nursing students who studied in the high HIV/AIDS prevalence area (CMU) and those of Thai senior baccalaureate nursing students who studied in the low HIV/AIDS prevalence area (PSU) at the .01 level ($p = .79$).

Hypothesis 4: Mean scores for HIV knowledge, attitudes, and caring for HIV/AIDS patients of senior baccalaureate nursing students will increase significantly in relationship to the increase in the students' hours in direct clinical care of HIV/ AIDS patients.

Findings: As already discussed, there was no statistical relationship on the Spearman correlations between the scores for HIV knowledge, attitudes, and caring and the number of clinical hours caring for HIV/AIDS patients for U. S. senior baccalaureate nursing students (see Table 12).

Hypothesis 5: Mean scores for HIV knowledge, attitudes, and caring for HIV patients of Thai senior baccalaureate nursing students will increase significantly

in relationship to the increase in the students' hours in direct clinical care of HIV/AIDS patients.

Findings: As already discussed, there was no statistical relationship on the Spearman correlations between the scores for HIV knowledge, attitudes, and caring and the number of clinical hours caring for HIV/AIDS patients for Thai senior baccalaureate nursing students (see Table 12).

Hypothesis 6: Mean scores for HIV knowledge, attitudes, and caring for HIV patients of American senior baccalaureate nursing students will increase significantly in relationship to the increase in the number of HIV/AIDS patients cared for.

Findings: As already discussed, there was no statistical relationship on the Spearman correlations between the scores for HIV knowledge, attitudes, and caring and the number of HIV/AIDS patients cared for by U.S. senior baccalaureate nursing students (see Table 12).

Hypothesis 7: Mean scores for HIV knowledge, attitudes, and caring for HIV patients of Thai senior baccalaureate nursing students will increase significantly in relationship to the increase in the number of HIV/AIDS patients cared for.

Findings: As already discussed, there was no statistical relationship on the Spearman correlations between the scores for HIV knowledge, attitudes, and caring and the number of HIV/AIDS patients cared for by Thai senior baccalaureate nursing students (see Table 12).

Summary

Unexpected findings were the significant differences found when comparing students' scores on knowledge, attitudes, and caring (Table 11) and when comparing these scores based on prevalence and country.

As seen in Table 13, 14, and 15, there were significant differences found in the followings:

HIV-Knowledge

1. HIV Knowledge scores of Thai senior nursing students who studied in the high HIV/AIDS prevalence area (CMU) were significantly different (less knowledge) from those of U.S. senior nursing students who studied in the high HIV/AIDS prevalence area (NYU) at the .01 level ($p < .0001$).
2. HIV Knowledge scores of Thai senior nursing students who studied in the low HIV/AIDS prevalence area (PSU) were significantly different (less knowledge) from those of U.S. senior nursing students who studied in the low HIV/AIDS prevalence area (MU) at the .01 level ($p < .0002$).

Attitudes

3. Attitude scores of Thai senior nursing students who studied in the high HIV/AIDS prevalence area (CMU) were significantly different from those of U. S. senior nursing students who studied in the high HIV/AIDS prevalence area (NYU) at the .01 level ($p < .0001$). The U.S. students scored more positively on this instrument than the Thai students.

Caring

4. Caring scores of Thai senior nursing students who studied in the high HIV/AIDS prevalence area (CMU) were significantly different from those of U.S. senior nursing students who studied in the high HIV/AIDS prevalence area (NYU) at the .01 level ($p < .0001$). Again, the U.S. students would appear to be more caring in regards to HIV/AIDS patients than the Thai students.

Overall, U.S. students, regardless of HIV/AIDS prevalence area, had significantly greater HIV/AIDS knowledge than Thai students. Only the U.S. students practicing in the high HIV/AIDS prevalence area had significantly better attitude and caring scores compared to Thai students who also practicing in the high HIV/AIDS prevalence area.

CHAPTER 5

Discussion

Although no hypotheses were completely accepted, this study had some interesting and unexpected findings. U.S. students, regardless of HIV/AIDS prevalence area, had significantly greater HIV/AIDS knowledge than Thai students. Only the U.S. students who studied in the high HIV/AIDS prevalence area had significantly better attitude and caring scores when compared to Thai students who studied in the high HIV/AIDS prevalence area. Thai students in the low HIV/AIDS prevalence area had more knowledge than Thai students in the high HIV/AIDS prevalence area whereas their attitudes and caring towards HIV/AIDS patients were not significantly different. In contrast, HIV knowledge of U.S. students in the high and low HIV/AIDS prevalence area was not significantly different, but U.S. students in the high HIV/AIDS prevalence area had better attitude scores and higher caring scores in relation to HIV/AIDS patients than did U.S. students in the low HIV/AIDS prevalence area.

In addition, assumptions made at the beginning of the study that an increased exposure to HIV/AIDS patients would yield greater knowledge, attitudes, and caring in nursing students were not fully supported by this study. There are several factors that may have contributed to why the hypotheses and assumptions made at the beginning of the study were not supported. These differences are discussed below.

Demographic Characteristics

First, significant differences were found in the demographic characteristics of the students. The U. S. senior nursing students were more likely to be older than the Thai senior nursing students. Twenty-three percent of the U. S. students were married whereas none of the Thai students were married although there are no current regulations of Thai universities in prohibiting nursing students from being married (Faculty of Nursing, Chiang-Mai University, 2006; Faculty of Nursing, Prince of Songkla University, 2006). The single status of all Thai students may be attributable to Thai culture. In Thai culture, parenting styles tend to be authoritarian rather than permissive, and disciplinary strategies are more verbal than physical. Parents promote family honor as well as respect for elders. Most families encourage their children to complete their education prior to marrying and beginning a family. It is felt that with the cultural value and education, youth will learn to take responsibility for their own lives and their new families (Turner, 2002).

The ethnic and religious differences noted between the national groups, as described in Chapter 4, were not surprising. However, students differed significantly in the degree to which they ascribed importance to religious beliefs. Based on study data, it appeared that the Thai senior nursing students felt religion was more important than did the U. S. students. One hypothesis to explain this difference is the pervading presence of Buddhism in Thai Culture (Hoskin & Cubitt, 2000).

Buddhism has been Thailand's national religion for at least 700 years and, as such, it has become integrated and united into all aspects of Thai culture. Buddhism, which is derived from the teachings of the Buddha, the Enlightened One, is a way of life based on seeing, knowing, understanding, and accepting worldly reality. Letting go, which is the pathway of freedom will open the door to peace and simplicity, and to joy and appreciation (Feldman, 2006). Further, the suffering that is inherent in human life can be ameliorated through moral and mental self-purification. The ultimate aim of Buddhism is the release from the endless cycle of rebirth and suffering by extinguishing desire that is to achieve the state of nirvana (Hoskin & Cubitt, 2000).

In Thailand, there are many temples scattered about cities and the country-side. Thai people go to temples often for meditation and merit making (D'Avanzo & Geissler, 2003). Young Thai men become monks temporarily to earn merit for their parents as well as their spiritual development. All over Thailand, Buddhist monks make early morning alms rounds, receiving food and other offerings. The monastic life is lived in temple communities. Many monks are ordained for three months of the Buddhist Rains Retreat (Hoskin & Cubitt, 2000).

In addition to the influence of Buddhism, the relationships within Thai families formed as large extended family networks or collectivism could be another possible factor that impact on the way of thinking or the way that Thai people live their lives (D'Avanzo & Geissler, 2003; Salkind, 2002). Each family is

unique and has its own value, discipline, and belief system. However, family belief systems tend to correspond to the norms and traditions of the society and of the larger nation. Family members devote and sacrifice their own goals to meet those norms and standards (Colyar, 2003). In Thai families, elders are respected and the oldest man in the family is the person who makes the decisions (Colyar, 2003; Salkind, 2002; Turner, 2002). This foundation of thought devoted to preserving the cultural identity and the unity of Buddhism may well influence Thai people to adhere to Buddhist doctrine and recognize the importance of religion in their daily lives and transfer this value from one generation to the next. This phenomenon may explain why Thai students felt religion was more important to them. It was assumed that this Thai culture would have shown stronger attitude and caring scores than students from the U.S., but this was not the case.

Educational Differences

A difference in AIDS Knowledge was found between the U.S. and Thai students. Students in both countries reported approximately the same amount of class content regarding HIV/AIDS; over 90% of students reported having less than 10 total hours of HIV/AIDS education during their entire nursing program. Over 93% of students reported having less than 10 clinical hours per week in caring for HIV/AIDS patients and over 90% of students reported having less than 50 total clinical hours in caring for HIV/AIDS patients during the entire nursing

program. Finally, approximately 40% of students reported that they had never taken care of HIV/AIDS patients in any clinical rotation.

A country difference was found, however, between the proportions of students who had never cared for HIV/AIDS patients. Country prevalence for HIV/AIDS is significantly higher in Thailand, making it more likely that students would have the opportunity to care for these patients. The 2005 country-wide HIV prevalence rate in the U.S. is 0.6% whereas of that in Thailand is 1.4% (UNAIDS, 2006). According to the report released by the WHO Regional Office for South-East Asia (2006), at the end of 2004, an estimated 570,000 Thai people were living with HIV/AIDS (WHO, 2004; WHO Regional Office for South-East Asia, 2006) whereas 415,193 persons in the U.S. were living with AIDS (Centers for Disease Control and Prevention, 2006). Therefore, it was not surprising that only 26% of Thai students had never taken care of HIV/AIDS patients whereas 53% of the U. S. students had never done so. In other words, The Thai students were more likely to be exposed to HIV/AIDS patients when compared with the U.S. students.

Differences in Bachelor of Nursing Science Programs

For all four Universities studied, the Bachelor of Nursing Science Program was similar, but the clinical practice hours were varied. None of these four universities had specific clinical course goals related to care for HIV/AIDS patients.

Bachelor of Nursing Science Program at New York University.

HIV/ AIDS education is imbedded in the subjects of medical-surgical nursing, pathophysiology, pediatric nursing, and community nursing (Mei R. Fu, personal communication, April 27, 2006). Senior nursing students have one or two days of clinical practice per week and 8 hours per clinical day (Mei R. Fu, personal communication, May 23, 2006). The faculty to student ratio is approximately 1: 8-9 (Mei R. Fu, personal communication, October 26, 2006). Nursing faculty members do not intentionally assign students to care for patients with HIV/AIDS, but if the patient assigned is an AIDS patient, the student will take care of that AIDS patient. However, there are no specific clinical course goals related to the care for HIV/AIDS patients (Mei R. Fu, personal communication, May 23, 2006).

Bachelor of Nursing Science Program at University of Missouri-Columbia.

As mentioned above, the Bachelor of nursing science program was similar to all universities studied. At the University of Missouri-Columbia, nursing students learn infectious disease precaution techniques from the fundamentals of nursing course. Senior nursing students have one 6-hour clinical day in community health per week for a total of 90 clinical hours. In community health, the faculty to student ratio is 1:9-10. In addition to the community health practicum, all senior students have a senior practicum for a total of 180 hours during the final semester. Some students do 1 day per week, other do 2 or more. Timing varies depending on clinical sites and preceptor demands. The

ratio is 1 student per 1 preceptor when practicing in the hospital setting (Roxanne McDaniel, personal communication, October 30, 2006).

Bachelor of Nursing Science Program at Chiang-Mai University.

HIV/AIDS education is similar to that of New York University and University of Missouri-Columbia. However, there is a two-hour special lecture of AIDS in the nursing practicum. Senior nursing students have 3 full days and a half-day for 2 days of clinical practice per week with 8 hours per clinical day. The faculty to student ratio is approximately 1:5-6. It is not often that faculty members assign students to take care of HIV or AIDS patients (Suthatip Upalabut, personal communication, August 10, 2006).

Bachelor of Nursing Science Program at Prince of Songkla University.

HIV/ AIDS Education in the classroom is similar to the other three universities. However, the clinical rotation varies somewhat from the others. Senior nursing students have 3 full days per week for 5 weeks of each clinical practice setting. The faculty to student ratio is approximately 1: 5-6. It is not often that faculty assigns a student to take care of HIV/AIDS patient, but if the patient assigned is an HIV or AIDS patient, the student has to take care of that patient (Aree Nuibandan, personal communication, June 9, 2006).

Differences of nursing faculty/ student ratio

The faculty to student ratio varied from 1:5-6 to 1:8-10 across the programs. The faculty to student ratio in the U.S was higher than that of in Thailand. The faculty shortage may be an influencing factor that impacts the

faculty/student ratio (AACN, 2003); this shortage may impact the time available to supervise students during their clinical day. Lack of sufficient supervision may contribute to a feeling of insecurity of students when they have to take care of HIV/AIDS patients. Grossman et al. (1998) stated that the students who had RN role models perceived an enhanced ability to talk, touch, and work with HIV/AIDS patients than the students who were not given RN role models. Although the faculty to student ratio was high in the U.S., this did not seem to impact the U.S. students' HIV knowledge, attitudes, and caring for HIV/AIDS patients since the U.S. students' scores were generally higher than those of Thai students in all research instruments.

HIV/AIDS education outside classroom

In addition to classroom learning, U.S. and Thai students gained HIV/AIDS information from other sources. These sources varied between nations. The results of this study identified that the main sources of HIV/AIDS information in Thailand were from the library and the mass media, such as television and radio. Since English textbooks are expensive in Thailand, few are available and many available textbooks may be out-dated. As a result, it is likely that Thai students may use public service campaigns on television and radio as other sources to acquire HIV/AIDS information. These findings are consistent with the studies of Lal et al. (1998) and Maswanya et al. (2000), who found that television, radio, and film were judged by nursing students from the nursing schools of Delhi and Japan as the best media to disseminate information about AIDS.

With more well-funded nursing programs, and the advanced technology of networked computers and mass media within the U. S., the U. S. students may have had greater opportunities than Thai students to access information from current textbooks, print and audio-media, and the Internet. The Internet or cyberspace can be easily accessed from any place that has Internet services (Anttiroiko, 2005). In addition, U.S. federal organizations such as the Centers for Disease Control and Prevention (CDC) provides reliable and useful content on HIV/AIDS on its website (CDC, 2006).

Instruments: HIV Knowledge, AIDS Attitudes Scale, and the Caring Survey

Despite having approximately the same amount of classroom content during their nursing education, this study found that the scores of the U.S. senior nursing students were generally more positive on all of the research instruments. This finding suggests that U.S. senior nursing students had greater knowledge, had stronger empathy, more supportive attitude towards patients with HIV/AIDS, and had less avoidance towards being willing to care for HIV/AIDS patients when compared with the Thai senior nursing students.

One hypothesis for this finding is that having more well-funded nursing programs, having a large numbers of well-prepared doctoral level nursing faculty and advanced practice nurses, as well as having the advanced technology of networked computers play a major role in the student's learning. These factors may influence knowledge acquisition, foster positive attitudes about HIV/AIDS and prepare students to provide better care for HIV/AIDS patients (Billings &

Halstead, 2005). It is important to have sound knowledge of HIV/AIDS because feeling fear of contagion and fear of caring for HIV/AIDS patients is associated with lack of knowledge and negative attitudes (Anderson et al., 2003; Berkowitz, & Nuttall, 1996; Bowman et al., 1994; Durkin, 2004; Gignac, & Oermann, 1991; Jemmott et al., 1992; Oyeyemi et al., 2006; Rondahl et al., 2003; Stiernborg, 1992).

The results of this present study were similar to the findings reported by several previous researchers. For example, Lohrmann et al. (2000) found that German nursing students who had a high AIDS knowledge level tended to have less negative attitudes and homophobia than those with a low level of knowledge. In the same study, students who had positive attitudes towards individuals with HIV/AIDS had less homophobia and were more willing to care for individuals with HIV/AIDS compared to those who had negative attitudes towards individuals with HIV/AIDS. Further, Oermann and Gignac (1991) found that Canadian nursing students with more knowledge about AIDS expressed more positive attitudes towards individuals with AIDS. Finally, Oyeyemi et al. (2006) found that Nigerian nurses who demonstrated a poor knowledge of AIDS showed poor attitudes towards AIDS due to fear of AIDS and concern over contagion.

Similarity and Differences within the U.S students

When comparing the two U.S. samples, U.S. senior nursing students in the high HIV/AIDS prevalence area (New York University) had a higher score for

HIV knowledge than those from the lower prevalence area but this was not statistically significant. However, the students in the high prevalence area displayed significantly stronger empathy, less avoidance attitudes and more willingness to care for HIV/AIDS patients compared with U.S. senior nursing students in the low HIV/AIDS prevalence area (University of Missouri-Columbia). The differences in their attitudes and willingness to care for HIV/AIDS patients could be explained, at least in part, by geographical location. For example, in a metropolitan area like New York City, individuals may be exposed to and have experience with many diverse groups [diversity measure = 72% (Sperling & Sander, 2004)]; consequently, those individuals may become more aware and accepting of HIV/AIDS. However, living in a Midwest small city or a college town like Columbia, Missouri [diversity measure = 28% (Sperling & Sander, 2004)] may render individuals more conservative and entrenched in the values and traditions of the region (Castello, 2005). Since New York City has been in the top ten highest HIV/AIDS prevalence areas in the U.S. since the beginning of the epidemic, senior nursing students at New York University may have had more prior exposure to persons with HIV/AIDS. The influence of a positive effect of education and prior exposure may have helped shape nursing students' attitudes towards caring for patients with HIV/AIDS.

It must be noted that the individual differences and their relationship with others also affect individuals and may have contributed to the differences noted. From an ecological perspective, an individual as a member of a social group

develops a sense of self within an interlocking web of social systems (Coleman, Norton, Miranda, & McCubbin, 2003). An Individual has his or her own family values, social contacts and interactions with the environment, such as family, school, neighborhood, and community; and these reciprocal interactions influence an individual's development. Further, the role of family, school, and church could shape an individual's life and influence the ways of thinking about self and others (Coleman et al., 2003; MacDonald, 2001). Since these multiple factors may influence the ways that individuals view events and people, it was not surprising that the two U.S. sample groups exhibited varying levels of positive attitudes and willingness to care for HIV/AIDS patients.

Similarity and Differences with the Thai students

The Thai senior nursing students in the high HIV/AIDS prevalence area (Chiang-Mai University) had significantly lower scores on HIV knowledge than those of Thai students in the low prevalence area (Prince of Songkla University). However, no significant differences were found between the two Thai groups in their attitudes or willingness to care for HIV/AIDS patients. The difference in HIV knowledge scores could result from the difference in student progression at the time the data were collected. The senior nursing students at Prince of Songkla University who were seniors had completed all their course works and clinical practice and were ready for graduation whereas the senior nursing students from Chiang-Mai University were students who had just entered in the senior level of nursing program.

The lack of differences in attitudes and willingness of Thai senior nursing students from the high and low prevalence areas to care for HIV/AIDS patients is that Thai people have a strong tolerance of eccentricities and diversity in other people; in particular homosexuality is not condemned (Puterbaugh, 1990). Moreover, another influencing factor may be the Buddhist doctrine that teaches Thai people to understand and accept the world reality, as a key Buddhist doctrine “ทำดี ได้ดี ทำชั่ว ได้ชั่ว” (Thum Dee, Dai Dee; Thum Choa, Dai Choa) or people reap what they sow. Suffering which is inherent in human life can be liberated through moral and mental self-purification. Letting go is the pathway of freedom that will open the door to peace and simplicity, and to joy and appreciation (Feldman, 2006).

Limitations of this study

Since the participants of this study, of necessity, came from a convenience sample and were not randomly selected, these findings hardly represent the whole population of senior nursing students. Obviously, results cannot be widely generalized. In addition, this study used a cross-sectional design. This design was relatively economical, but it was unable to assess to see progress or the change over time in the same way that a longitudinal study may have done. Changes over time would have been good to assess especially with the attitude domain but time and financial constraints did not permit this.

Further, this study used a self-reported questionnaire that may possibly cause the Hawthorne Effect. The Hawthorne effect asserts the idea that the act

of studying a phenomenon may alter the results of the study. It is conceivable that the Hawthorne effect may have occurred as a result of the students knowing that they were subjects of the study and, as a result, they may have reported more clinical hours than they actually experienced. Students may have wanted to please their teachers or make their school look better. Their exaggerated reports may influence the generalizability of the research findings thus creating a threat to external validity. The possibility of the Hawthorne effect should be taken into consideration when the researcher is designing the study (Burn & Grove, 2001; Polit & Beck, 2004).

Implications for Nursing Education

More than 90% of senior nursing students in both countries reported having less than 10 total hours of HIV/AIDS education during their entire nursing programs. This amount of classroom learning seems insufficient for students to gain full knowledge of HIV/AIDS, especially in the midst of an on-going HIV/AIDS epidemic. Moreover, HIV/AIDS is a deadly disease that threatens human life causing significant morbidity and mortality in children and adults. In some countries, the HIV/AIDS epidemic threatens the social fabric of the nation. In view of the importance of this disease and its ubiquitous nature increasing the amount of HIV/AIDS content in classroom learning is critical to increasing students' knowledge about this disease.

This study identifies a need to review and increase the amount and extent of HIV/AIDS content in nursing curricula to facilitate and increase students'

capacity in providing a competent care to HIV/AIDS patients. Nursing faculty must revise and update HIV/AIDS content regularly and develop new teaching strategies and training programs that cultivate and maintain positive attitudes in caring for HIV/AIDS patients in both classroom and in experiential learning with the nursing faculty acting as positive role models. Students should be allowed to express their fear of contagion and should have the opportunity to discuss their beliefs and value systems with others (Oermann & Gignac, 1991).

Moreover, students may also be offered service learning opportunities in agencies that work with HIV/AIDS in order to enhance their world views, communication and decision making skills beyond those learned in the classroom. Service learning opportunities of this sort extend and expand experiential education. Stiernborg et al. (1996) found support for experiential learning in term of affective outcomes. They found that the experiential learning group was significantly more favorable in attitudes than the didactic teaching group and the control group.

In contemporary higher education, on-going curriculum development is necessary to maintain quality and relevance. The curriculum must offer activities to enable students to gain actual relevant experiences for their future as practicing nurses and to learn to work collaboratively with other disciplines (Billings & Halstead, 2005). The scope of HIV/AIDS nursing education should expand and emphasize the ideas of patient-centered care, interdisciplinary

teamwork, evidence-based practice, and quality improvement approaches (Shaver, 2005).

Implications for Nursing Research

Longitudinal studies regarding HIV knowledge and attitudes towards caring for HIV/AIDS patients among nursing students through their education may be helpful in evaluating the progress and learning process of students. It will also be an opportunity for a faculty to evaluate the HIV/AIDS content, experiential learning, and teaching styles in order to maintain the quality of curriculum.

In addition, the next study may be conducted in Thailand and compare HIV knowledge, attitudes, and caring towards HIV/AIDS patients between of senior nursing students at Chiang-Mai University and of senior nursing students at Prince of Songkla University. The data collection of this next study should be collected at the same period of time and from senior nursing students who may be in a semester prior to graduation or in the semester that they are ready to graduate. Further, students' clinical experience notebooks or logs and the course syllabus of each topic in the Bachelor of Nursing Science Program should be closely considered in details in order to gain understanding what senior nursing students have learned and what needs to be added.

Benefits of this study

This study suggests that contemporary U.S. and Thai senior nursing students hold professional values, have empathetic attitudes and are willing to

care for HIV/AIDS patients. We can assume that the more positive attitudes senior nursing students hold on or adopt, the better quality of care will be provided to the patients and the more HIV/AIDS patients will be satisfied with their care.

Conclusion

In the midst of an on-going HIV/AIDS epidemic, nursing educators must continue working on nursing curricula and HIV/AIDS training programs in order to develop effective teaching strategies that promote the provision of excellent, sensitive and meaningful nursing care for HIV/AIDS victims. HIV/AIDS topics must address both domestic and global perspectives. The adequacy of the knowledge and skills of nursing students is an essential determinant of the quality of service and nursing care provided. Nursing educators must serve as role models in the clinical practice and must demonstrate humanistic and holistic care with attitudes of the understanding of individual differences, non-judgmental approach, and compassion.

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Appendix A

Demographic and Experience Questionnaire

This part will ask about your personal background and experience. For each statement or question, fill the blank and put the a mark next to the response that applies to your in the space provided. Please check only one answer.

Personal Background

1. What is your age?

_____ Years

2. What is your gender?

_____ Male

_____ Female

3. What is your marital status?

_____ Single, never married

_____ Married

_____ Divorced

_____ Widowed

_____ Separated

_____ Cohabiting

4. What is your spouse's or partner's education?

_____ Not married

_____ Less than junior high school

_____ Junior high school

- _____ Partial high school
- _____ High School
- _____ College or university graduation
- _____ Graduate degree

5. How do you describe your ethnicity?

- _____ Caucasian/Anglo
- _____ Black, African American
- _____ Hispanic (Latino, Mexico, and Puerto Rican)
- _____ Asian or Pacific Island
- _____ American Indian or Native Alaskan
- _____ Other (Please identify)

6. What is your religious affiliation?

- _____ No formal religious affiliation
- _____ Catholic
- _____ Jewish
- _____ Protestant
- _____ Buddhist
- _____ Islamic
- _____ Other (Please identify)

7. How important are your religious belief to you, personally?

_____ No specific religious affiliation

_____ Not at all important

_____ Slightly important

_____ Moderately important

_____ Very important

_____ Extremely important

Personal Experience

The following questions will ask you about your personal experience. Please make the best estimate you can and put the mark next to the response that applies to your in the space provided.

8. What is the average number of clinical hours per week that you spend in caring for HIV patients?

_____ Hour (s).

9. What is the approximate number of total clinical hours that you spent in caring for HIV patients during your nursing education?

_____ Hour (s).

10. How many HIV patients have you cared for during this week?

_____ case (s).

11. How many HIV patients have you cared for during your entire nursing education?

_____ case (s).

12. How many total hours of HIV/AIDS education or training you have had in your entire nursing program?

_____ Hour (s).

13. In addition to nursing education, where do you find information and resources related to HIV/AIDS? (For this questions, you may answer more than one if those apply to your)

_____ Library

_____ Word of mouth (from friends or relatives)

_____ Internet

_____ Centers For Disease Control and Prevention (CDC) website.

_____ Local AIDS agencies

_____ Television

_____ Radio

_____ Other (Please identify)

Thank you very much for your time and willingness to participate in this project!!

HIV Knowledge Questionnaire (HIV-KQ-45)

INSTRUCTIONS: For each statement, please circle True (T), False (F), or I Don't Know (DK). If you do not know, please do not guess; instead, please circle "DK."

Item (s)	True	False	Don't Know
1. HIV and AIDS are the same thing.	T	F	DK
2. There is a cure for AIDS.	T	F	DK
3. A person can get HIV from a toilet seat.	T	F	DK
4. Coughing and sneezing <u>DO NOT</u> spread HIV.	T	F	DK
5. HIV can be spread by mosquitoes.	T	F	DK
6. AIDS is the cause of HIV.	T	F	DK
7. A person can get HIV by sharing a glass of water with someone who has HIV.	T	F	DK
8. HIV is killed by bleach.	T	F	DK
9. It is possible to get HIV when a person gets a tattoo.	T	F	DK
10. A pregnant woman with HIV can give the virus to her unborn baby.	T	F	DK
11. Pulling out the penis before a man climaxes/cums keeps a woman from getting HIV during sex.	T	F	DK
12. A woman can get HIV if she has anal sex with a man.	T	F	DK
13. Showering, or washing one's genitals/private parts, after sex keeps a person from getting HIV.	T	F	DK

Item (s)	T	F	DK
14. Eating healthy foods can keep a person from getting HIV.	T	F	DK
15. All pregnant women infected with HIV will have babies born with AIDS.	T	F	DK
16. Using a latex condom or rubber can lower a person's chance of getting HIV.	T	F	DK
17. A person with HIV can look and feel healthy.	T	F	DK
18. People who have been infected with HIV quickly show serious signs of being infected.	T	F	DK
19. A person can be infected with HIV for 5 years or more without getting AIDS.	T	F	DK
20. There is a vaccine that can stop adults from getting HIV.	T	F	DK
21. Some drugs have been made for the treatment of AIDS.	T	F	DK
22. Women are always tested for HIV during their pap smears.	T	F	DK
23. A person <u>cannot</u> get HIV by having oral sex, mouth-to-penis, with a man who has HIV.	T	F	DK
24. A person can get HIV even if she or he has sex with another person only one time.	T	F	DK
25. Using a lambskin condom or rubber is the best protection against HIV.	T	F	DK
26. People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV.	T	F	DK
27. A person can get HIV by giving blood.	T	F	DK

Item (s)	T	F	DK
28. A woman cannot get HIV if she has sex during her period.	T	F	DK
29. You can usually tell if someone has HIV by looking at them.	T	F	DK
30. There is a female condom that can help decrease a woman's chance of getting HIV.	T	F	DK
31. A natural skin condom works better against HIV than does a latex condom.	T	F	DK
32. A person will <u>Not</u> get HIV if she or he is taking antibiotics.	T	F	DK
33. Having sex with more than one partner can increase a person's chance of being infected with HIV.	T	F	DK
34. Taking a test for HIV one week after having sex will tell a person if she or he has HIV.	T	F	DK
35. A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.	T	F	DK
36. A person can get HIV through contact with saliva, tears, sweat, or urine.	T	F	DK
37. A person can get HIV from a woman's vaginal secretions/ wetness from her vagina.	T	F	DK
38. A person can get HIV if having oral sex, mouth on vagina, with a woman.	T	F	DK
39. If a person tests positive for HIV, then the test site will have to tell all of his or her partners.	T	F	DK
40. Using Vaseline or baby oil with condoms lowers the chance of getting HIV.	T	F	DK

Item (s)	T	F	DK
41. Washing drug use equipment/ "work" with cold water kills HIV.	T	F	DK
42. A woman can get HIV if she has vaginal sex with a man who has HIV.	T	F	DK
43. Athletes who share needles when using steroids can get HIV from the needles.	T	F	DK
44. Douching after sex will keep a woman from getting HIV.	T	F	DK
45. Taking vitamins keeps a person from getting HIV.	T	F	DK

AIDS Attitude Scale (AAS)

INSTRUCTIONS: Circle the response that best corresponds to how strongly you agree or disagree with the statement. The categories of response are Strongly Disagree (SD), Moderately Disagree (MD), Disagree (D), Agree (A), Moderately Agree (MA), and Strongly Agree (SA).

Item (s)	SD	MD	D	A	MA	SA
1. Most people who have AIDS have only themselves to blame.						
2. Most people who have AIDS deserve what they get.						
3. Hospital patients who are HIV positive should not be put in rooms with other patients.						
4. If I had to have contact with someone with AIDS, I would worry about putting my family and friends at risk of contracting the disease.						
5. Young children should be removed from the home if one of the parents is HIV positive.						
6. I think patients with AIDS have the right to the same quality of care as any other patient.						
7. It is especially important for hospital patients with AIDS to be treated in a caring manner.						
8. I think people who are IV drug users deserve to get AIDS.						
9. I think women who give birth to babies who are HIV positive should be prosecuted for child abuse.						
10. Homosexuality should be illegal.						

Item (s)	SD	MD	D	A	MA	SA
11. I feel more sympathetic toward people who get AIDS from blood transfusions than those who get it from IV drug abuse.	SD	MD	D	A	MA	SA
12. A homosexual hospital patient's partner should be accorded the same respect and courtesy as the partner of a heterosexual patient.	SD	MD	D	A	MA	SA
13. Hospital patients with AIDS should be treated with the same respect as any other patient.	SD	MD	D	A	MA	SA
14. If I found out that a friend of mine was a homosexual, I would not maintain the friendship.	SD	MD	D	A	MA	SA
15. I am worried about getting AIDS from social contact with someone.	SD	MD	D	A	MA	SA
16. I am sympathetic toward the misery people with AIDS experience.	SD	MD	D	A	MA	SA
17. I would like to do something to make life easier for people with AIDS.	SD	MD	D	A	MA	SA
18. I would do everything I could to support people with AIDS.	SD	MD	D	A	MA	SA
19. Children or people who get AIDS from blood transfusions are more deserving of treatment than those who get it from IV drug abuse.	SD	MD	D	A	MA	SA
20. I would be worried about my child getting AIDS if I knew that one of his teachers was a homosexual.	SD	MD	D	A	MA	SA
21. I have little sympathy for people who get AIDS from sexual promiscuity.	SD	MD	D	A	MA	SA

Caring Survey

INSTRUCTIONS: Circle the response that best corresponds to how strongly you agree or disagree with the statement. The categories of response are Strongly Disagree (SD), Disagree (D), Undecided (U), Agree (A), and Strongly Agree (SA).

Item (s)	SD	D	U	A	SA
1. I would care for an AIDS patient because it is my professional responsibility.					
2. I would volunteer to care for an AIDS patient.					
3. Nursing students should be assigned to care for AIDS patients.					
4. My family and friends are not concerned about associating with nurses who provide care for AIDS patients.					
5. I would not hesitate to do mouth to mouth resuscitation on AIDS patients if a protective device was not available.					
6. A nurse who is pregnant should not care for an AIDS patient.					
7. A nurse who has children should not care for an AIDS patient.					
8. I would ask for a transfer to another unit if I had to care for AIDS patients.					
9. I would leave nursing if I had to care for AIDS patients.					
10. I prefer not to care for a homosexual patient who has AIDS.					
11. I prefer not to care for a patient with AIDS.					

Item (s)	SD	D	U	A	SA
12. AIDS patients are entitled to the same care as any other patients.	SD	D	U	A	SA
13. I prefer not to care for an intravenous drug abuser who has AIDS.	SD	D	U	A	SA
14. I would consider working on an AIDS unit.	SD	D	U	A	SA

Appendix B

แบบสอบถามข้อมูลส่วนบุคคลและประสบการณ์ของการเรียน

หลักสูตรพยาบาลศาสตรบัณฑิต

แบบสอบถามต่อไปนี้เป็นแบบสอบถามเกี่ยวกับข้อมูลส่วนบุคคลและประสบการณ์ของการเรียนหลักสูตรพยาบาลศาสตรบัณฑิต กรุณาตอบคำถามเหล่านี้ตรงตามความเป็นจริงของท่าน

ข้อมูลส่วนบุคคล

1. ท่านมีอายุเท่าไร

_____ ปี

2. เพศ

_____ ชาย

_____ หญิง

3. สถานภาพสมรส

_____ โสด

_____ สมรส

_____ หย่าร้าง

_____ หม้าย

_____ แยกกันอยู่

_____ อยู่ด้วยกันโดยไม่ได้แต่งงาน

ถ้าสมรสแล้ว กรุณาตอบข้อ 4

4. ระดับการศึกษาของคุณสมรสของท่าน

- _____ ระดับประถมศึกษา
- _____ ระดับมัธยมต้น
- _____ ระดับมัธยมปลาย
- _____ ประกาศนียบัตรวิชาชีพ (ปวช, ปวส, ปวท)
- _____ปริญญาตรี
- _____ สูงกว่าปริญญาตรี

5. เชื้อชาติ

- _____ เชื้อชาติไทย
- _____ เชื้อชาติจีน
- _____ อื่นๆ (โปรดระบุ)

6. ศาสนา

- _____ ไม่นับถือศาสนาใดๆ
- _____ ศาสนาคริสต์โรมันคาทอลิก
- _____ ศาสนาคริสต์
- _____ ศาสนาพุทธ
- _____ ศาสนาอิสลาม
- _____ อื่นๆ (โปรดระบุ)

7. ศาสนามีความสำคัญต่อท่านระดับใด

_____ ไม่มีความเกี่ยวข้องกับศาสนา

_____ ไม่มีความสำคัญเลย

_____ มีความสำคัญน้อย

_____ มีความสำคัญปานกลาง

_____ มีความสำคัญมาก

_____ มีความสำคัญมากที่สุด

ข้อมูลด้านประสบการณ์ในการดูแลผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี

กรุณาดอบคำถามตามความเป็นจริงที่เกี่ยวกับท่าน

8. ท่านใช้เวลาโดยเฉลี่ยกี่ชั่วโมงต่อสัปดาห์ในการดูแลผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี

_____ ชั่วโมง

9. ตลอดการศึกษาหลักสูตรพยาบาลศาสตรบัณฑิตนี้ ท่านใช้เวลาโดยประมาณ

ทั้งหมดกี่ชั่วโมงในการดูแลผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี

_____ ชั่วโมง

10. ตลอดสัปดาห์นี้ ท่านมีโอกาสดูแลผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี จำนวนกี่คน

_____ คน

11. ตลอดการศึกษาในหลักสูตรพยาบาลศาสตรบัณฑิตนี้ ท่านมีโอกาสดูแล

ผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี จำนวนกี่คน

_____ คน

12. ตลอดการศึกษาในหลักสูตรพยาบาลศาสตรบัณฑิตนี้ ท่านได้ศึกษาหรือมีการอบรมเกี่ยวกับไวรัสเอชไอวีหรือโรคเอดส์จำนวนทั้งหมดกี่ชั่วโมง

_____ ชั่วโมง

13. นอกเหนือจากการเรียนในห้องเรียนแล้ว ท่านได้ข้อมูลข่าวสารความรู้เกี่ยวกับไวรัสเอชไอวีหรือโรคเอดส์จากที่ใดบ้าง (ตอบได้มากกว่า 1 ข้อ)

_____ ห้องสมุด

_____ จากการพูดคุยกับเพื่อนๆหรือญาติ

_____ อินเทอร์เน็ต

_____ เว็บไซต์ของกระทรวงสาธารณสุข

_____ ศูนย์ควบคุมการโรคและการติดต่อทางเพศสัมพันธ์

_____ ทางโทรทัศน์

_____ ทางวิทยุกระจายเสียง

_____ อื่นๆ (โปรดระบุ)

ขอขอบคุณนักศึกษาทุกท่านที่ให้ความร่วมมือในการตอบแบบสอบถามครั้งนี้ค่ะ

แบบสอบถามเกี่ยวกับความรู้ทั่วไปของไวรัสเอชไอวี

คำชี้แจง

กรุณาแสดงความคิดเห็นกับข้อความข้างล่างโดยเลือกวงกลม “ถูก” หากท่านคิดว่าข้อความนั้นถูกต้อง เลือกวงกลม “ผิด” หากท่านคิดว่าข้อความนั้นผิด หรือ เลือกวงกลม “ไม่ทราบ” หากท่านไม่ทราบหรือไม่แน่ใจในข้อความนั้น.

ข้อความ	ถูก	ผิด	ไม่ทราบ
1. เอชไอวี และ เอดส์ คือสิ่งเดียวกัน	ถูก	ผิด	ไม่ทราบ
2. โรคเอดส์สามารถรักษาได้	ถูก	ผิด	ไม่ทราบ
3. บุคคลสามารถติดเชื้อไวรัสเอชไอวีจากการใช้โถรงนึ่งในห้องน้ำ	ถูก	ผิด	ไม่ทราบ
4. การไอและการจามไม่สามารถกระจายเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
5. ยุงสามารถแพร่เชื้อไวรัสเอชไอวีได้	ถูก	ผิด	ไม่ทราบ
6. เอดส์ คือสาเหตุของการติดเชื้อเอชไอวี	ถูก	ผิด	ไม่ทราบ
7. บุคคลสามารถติดเชื้อไวรัสเอชไอวี ได้จากการใช้แก้วน้ำร่วมกันกับบุคคลที่มีเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
8. ผงฟอกขาวสามารถฆ่าเชื้อไวรัสเอชไอวีได้	ถูก	ผิด	ไม่ทราบ
9. มีความเป็นไปได้ที่บุคคลจะติดเชื้อไวรัสเอชไอวีจากการสักบนผิวหนัง	ถูก	ผิด	ไม่ทราบ
10. ผู้หญิงตั้งครรภ์ที่ติดเชื้อไวรัสเอชไอวี สามารถแพร่เชื้อไปสู่ทารกในครรภ์ได้	ถูก	ผิด	ไม่ทราบ
11. การดื่มยาระยะเพศชายออกมาหลังจากน้ำกลืนก่อนถึงจุดสุดยอดจะทำให้ผู้หญิงไม่ติดเชื้อไวรัสเอชไอวีขณะที่มีเพศสัมพันธ์ด้วยกัน	ถูก	ผิด	ไม่ทราบ
12. ผู้หญิงสามารถติดเชื้อไวรัสเอชไอวีได้ หากมีเพศสัมพันธ์ทางทวารหนักกับผู้ชาย	ถูก	ผิด	ไม่ทราบ
13. การอาบน้ำหรือชำระล้างอวัยวะสืบพันธุ์ภายหลังการมีเพศสัมพันธ์จะทำให้บุคคลนั้นไม่ติดเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
14. การรับประทานอาหารที่มีประโยชน์ต่อสุขภาพจะทำให้บุคคลนั้นไม่ติดเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ

ข้อความ	ถูก	ผิด	ไม่ทราบ
15. ผู้หญิงตั้งครรภ์ทุกคนที่ติดเชื้อไวรัสเอชไอวี จะให้กำเนิดทารกที่เป็นเอดส์	ถูก	ผิด	ไม่ทราบ
16. การใช้ถุงยางอนามัยชนิดลาเท็กซ์หรือยางจะช่วยลดโอกาสการติดเชื้อไวรัสเอชไอวีของบุคคลนั้นได้	ถูก	ผิด	ไม่ทราบ
17. บุคคลที่ติดเชื้อไวรัสเอชไอวีอาจจะดูว่าเป็นบุคคลที่มีสุขภาพดี	ถูก	ผิด	ไม่ทราบ
18. บุคคลที่ติดเชื้อไวรัสเอชไอวีจะแสดงอาการของการติดเชื้อที่รุนแรงอย่างรวดเร็ว	ถูก	ผิด	ไม่ทราบ
19. บุคคลสามารถติดเชื้อไวรัสเอชไอวีเป็นเวลา 5 ปีหรือมากกว่าโดยไม่เป็นโรคเอดส์	ถูก	ผิด	ไม่ทราบ
20. มีวัคซีนที่สามารถช่วยในการยับยั้งการติดเชื้อไวรัสเอชไอวีในผู้ใหญ่	ถูก	ผิด	ไม่ทราบ
21. ยาบางชนิดถูกผลิตขึ้นมาเพื่อใช้ในการรักษาโรคเอดส์	ถูก	ผิด	ไม่ทราบ
22. ผู้หญิงจะได้รับการตรวจเพื่อหาเชื้อไวรัสเอชไอวีทุกครั้งเมื่อมาตรวจภายใน	ถูก	ผิด	ไม่ทราบ
23. บุคคลจะไม่ได้รับการติดเชื้อไวรัสเอชไอวีหากมีเพศสัมพันธ์ด้วยการใช้ปากกับอวัยวะเพศชายของผู้ที่ติดเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
24. บุคคลสามารถจะติดเชื้อไวรัสเอชไอวีได้ ถึงแม้ว่าจะมีเพศสัมพันธ์เพียงครั้งเดียว	ถูก	ผิด	ไม่ทราบ
25. การใช้ถุงยางอนามัยที่ทำมาจากหนังแกะหรือยางคือวิธีการป้องกันการติดเชื้อไวรัสเอชไอวีที่ดีที่สุด	ถูก	ผิด	ไม่ทราบ
26. บุคคลมีแนวโน้มที่จะติดเชื้อไวรัสเอชไอวีหากมีการจูบชนิดที่ใช้ลิ้นดันเข้าไปในปากของผู้ที่มีเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
27. บุคคลสามารถติดเชื้อไวรัสเอชไอวีได้จากการบริจาคเลือด	ถูก	ผิด	ไม่ทราบ
28. ผู้หญิงจะไม่ติดเชื้อไวรัสเอชไอวีถ้าหากมีเพศสัมพันธ์ขณะที่มีประจำเดือน	ถูก	ผิด	ไม่ทราบ
29. โดยทั่วไปเราสามารถบอกได้ว่าบุคคลใดมีการติดเชื้อไวรัสเอชไอวีด้วยการมองจากภายนอก	ถูก	ผิด	ไม่ทราบ
30. การใช้ถุงยางอนามัยสำหรับผู้หญิงสามารถช่วยลดโอกาสในการติดเชื้อไวรัสเอชไอวีได้	ถูก	ผิด	ไม่ทราบ

ข้อความ	ถูก	ผิด	ไม่ทราบ
31. ฝูงยางอนามัยที่ทำมาจากสารธรรมชาติจะป้องกันการติดเชื้อไวรัสเอชไอวีได้ดีกว่ายางอนามัยที่ทำมาจากยางลาเท็กซ์	ถูก	ผิด	ไม่ทราบ
32. บุคคลจะไม่ติดเชื้อไวรัสเอชไอวี ถ้าหากว่าบุคคลนั้นกำลังได้รับยาปฏิชีวนะ	ถูก	ผิด	ไม่ทราบ
33. การมีเพศสัมพันธ์กับคู่นอนมากกว่า 1 คน สามารถเพิ่มโอกาสในการติดเชื้อไวรัสเอชไอวีของบุคคลได้	ถูก	ผิด	ไม่ทราบ
34. การตรวจหาเชื้อไวรัสเอชไอวีภายหลังการมีเพศสัมพันธ์ 1 สัปดาห์ จะสามารถบอกได้ว่าบุคคลนั้นมีการติดเชื้อไวรัสเอชไอวีหรือไม่	ถูก	ผิด	ไม่ทราบ
35. บุคคลสามารถได้รับเชื้อไวรัสเอชไอวี ถ้าหากมีการใช้อ่างอาบน้ำหรือสระว่ายน้ำร่วมกันกับบุคคลที่มีเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
36. บุคคลสามารถได้รับเชื้อไวรัสเอชไอวี จากการสัมผัสกับน้ำลาย น้ำตา เหงื่อ หรือปัสสาวะของบุคคลที่มีเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
37. บุคคลสามารถได้รับเชื้อไวรัสเอชไอวี จากสิ่งคัดหลั่งทางช่องคลอดของผู้หญิงที่มีเชื้อเอชไอวี	ถูก	ผิด	ไม่ทราบ
38. บุคคลสามารถได้รับเชื้อไวรัสเอชไอวี จากการมีเพศสัมพันธ์โดยการใช้ปากกับอวัยวะเพศของผู้หญิงที่มีเชื้อเอชไอวี	ถูก	ผิด	ไม่ทราบ
39. ถ้าหากบุคคลใดทำการตรวจเพื่อหาเชื้อไวรัสเอชไอวี และผลของการตรวจพบว่ามีเลือดบวก เจ้าหน้าที่ในหน่วยงานนั้นๆจะต้องบอกผลเลือดกับทุกคนที่เป็นคู่นอนของบุคคลนั้น	ถูก	ผิด	ไม่ทราบ
40. การใช้วาสลินหรือน้ำมันทาผิวเด็กทาถุงยางอนามัย จะช่วยลดโอกาสของการติดเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
41. การทำความสะอาดอุปกรณ์ฉีดยาด้วยน้ำเย็น จะสามารถฆ่าเชื้อไวรัสเอชไอวีได้	ถูก	ผิด	ไม่ทราบ
42. ผู้หญิงสามารถได้รับเชื้อไวรัสเอชไอวีได้ ถ้าหากมีเพศสัมพันธ์ทางช่องคลอดกับชายที่มีการติดเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
43. นักกีฬาที่ใช้เข็มฉีดยาร่วมกันเพื่อฉีดยาสเตียรอยด์ สามารถได้รับเชื้อไวรัสเอชไอวีจากเข็มฉีดยานั้นๆได้	ถูก	ผิด	ไม่ทราบ

ข้อความ	ถูก	ผิด	ไม่ทราบ
44. การชำระล้างช่องคลอดด้วยน้ำยาล้างช่องคลอด ภายหลังการมีเพศสัมพันธ์จะช่วยป้องกันบุคคลนั้นจากการได้รับเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ
45. การรับประทานวิตามิน จะทำให้บุคคลนั้นไม่ติดเชื้อไวรัสเอชไอวี	ถูก	ผิด	ไม่ทราบ

แบบสอบถามความคิดเห็นเกี่ยวกับทัศนคติของโรคเอดส์

คำชี้แจง

กรุณาทำเครื่องหมาย ✓ ลงในช่องของระดับของความคิดเห็นในแต่ละข้อความที่ตรงกับความคิดเห็นของท่านมากที่สุด โดยที่ระดับของความคิดเห็นจะถูกแบ่งออกเป็น 6 ระดับ ดังนี้

ไม่เห็นด้วยอย่างมาก

ไม่เห็นด้วยปานกลาง

ไม่เห็นด้วย

เห็นด้วย

เห็นด้วยปานกลาง

เห็นด้วยอย่างมาก

ข้อความ	ไม่เห็นด้วยอย่างมาก	ไม่เห็นด้วยปานกลาง	ไม่เห็นด้วย	เห็นด้วย	เห็นด้วยปานกลาง	เห็นด้วยอย่างมาก
1. คนส่วนใหญ่ที่เป็นโรคเอดส์ ควรจะตำหนิตนเองเท่านั้น						
2. คนส่วนใหญ่ที่เป็นโรคเอดส์ สมควรได้รับผลของการกระทำนั้น						
3. ผู้ป่วยที่ติดเชื้อไวรัสเอชไอวี ซึ่งเข้ารับการรักษาในโรงพยาบาล ไม่สมควรจะถูกจัดให้อยู่ร่วมห้องกับผู้ป่วยคนอื่นๆ						
4. ถ้าฉันได้สัมผัสกับบุคคลที่เป็นโรคเอดส์ ฉันคงรู้สึกวิตกกังวลว่า คนในครอบครัวและเพื่อนๆ ของฉัน จะมีโอกาสเสี่ยงต่อการติดเชื้อโรค						

ข้อความ	ไม่เห็น ด้วย อย่าง มาก	ไม่เห็น ด้วย ปานกลาง	ไม่เห็น ด้วย	เห็นด้วย	เห็นด้วย ปาน กลาง	เห็นด้วย อย่างมาก
5. เด็กเล็กควรถูก แยกออกจากบ้าน ถ้า หากพ่อหรือแม่ติดเชื้อ ไวรัสเอชไอวี						
6. ฉันคิดว่าผู้ป่วยที่ เป็นโรคเอดส์ มีสิทธิ ในการได้รับการดูแล เท่าเทียมกับผู้ป่วยอื่นๆ						
7. ผู้ป่วยโรคเอดส์ที่ เข้ารับการรักษาใน โรงพยาบาล ควรได้รับ การเอาใจใส่และการ ดูแลที่ดี						
8. ฉันคิดว่าบุคคล ที่ใช้ยาเสพติดชนิด ฉีดเข้าเส้นเลือดดำ สมควรจะเป็นโรคเอดส์						
9. ฉันคิดว่าผู้หญิง ที่ให้กำเนิดบุตรที่ติด เชื้อไวรัสเอชไอวี สมควรที่จะถูกกล่าวหา ว่าเป็นผู้ทำร้ายเด็ก						
10. การรักร่วมเพศ ควรเป็นสิ่งที่ผิดกฎหมาย						
11. ฉันรู้สึกเห็นใจ บุคคลที่ได้รับการติดเชื้อ โรคเอดส์จากการรับ เลือด มากกว่าบุคคลที่ ได้รับการติดเชื้อโรค เอดส์จากการฉีดยาเสพติด เข้าเส้นเลือดดำ						

ข้อความ	ไม่เห็น ด้วย อย่าง มาก	ไม่เห็น ด้วย ปานกลาง	ไม่เห็น ด้วย	เห็นด้วย	เห็นด้วย ปาน กลาง	เห็นด้วย อย่างมาก
12. คู่ของผู้ป่วยรัก ร่วมเพศสมควรได้รับ การต้อนรับและยอมรับ นับถือเช่นเดียวกับคู่ของ ผู้ป่วยรักต่างเพศ						
13. ผู้ป่วยโรคเอดส์ ควรได้รับการยอมรับ และการดูแลรักษา เช่นเดียวกับผู้ป่วยอื่นๆ						
14. ถ้าฉันพบว่า เพื่อนของฉันเป็นพวก รักร่วมเพศ ฉันจะไม่ รักษาสัมพันธภาพกับ เพื่อนคนนั้น						
15. ฉันรู้สึกวิตก กังวลว่า ฉันอาจจะติด เชื้อโรคเอดส์จากการ สัมผัสบุคคลทั่วไปใน สังคม						
16. ฉันรู้สึกเห็นใจ ผู้ป่วยที่มีประสบการณ์ ทุกข์ทรมานจากการ เป็นโรคเอดส์						
17. ฉันต้องการทำ บางสิ่งบางอย่างที่จะ ช่วยให้บุคคลที่ติดเชื้อ โรคเอดส์มีชีวิตที่ดีขึ้น						
18. ฉันจะทำทุก อย่างที่ผมสามารถทำได้ เพื่อให้การดูแลที่ดีที่สุด ต่อบุคคลที่ติดเชื้อโรค เอดส์						

ข้อความ	ไม่เห็น ด้วย อย่าง มาก	ไม่เห็น ด้วย ปานกลาง	ไม่เห็น ด้วย	เห็นด้วย	เห็นด้วย ปาน กลาง	เห็นด้วย อย่างมาก
19. เด็กหรือบุคคล ที่ติดเชื้อโรคเอดส์ จากการรับเลือด สมควรที่จะได้รับการ ดูแลรักษา มากกว่า บุคคลที่ติดเชื้อโรค เอดส์จากการใช้ยา เสพติดชนิดฉีดเข้า เส้นเลือดดำ						
20. ฉันคงรู้สึก วิตกกังวลว่า ลูกของ ฉันจะติดเชื้อโรคเอดส์ ถ้าฉันรู้ว่าครูของลูก เป็นพวกรักร่วมเพศ						
21. ฉันรู้สึกสนใจ เพียงเล็กน้อยต่อบุคคล ที่เป็นโรคเอดส์จากการ สำส่อนทางเพศ						

แบบสอบถามความคิดเห็นเกี่ยวกับการดูแลผู้ป่วยโรคเอดส์

คำชี้แจง

กรุณาทำเครื่องหมาย ✓ ลงในช่องของระดับของความคิดเห็นในแต่ละข้อความที่ตรงกับความคิดเห็นของท่านมากที่สุด โดยที่ระดับของความคิดเห็นจะถูกแบ่งออกเป็น 5 ระดับ ดังนี้

ไม่เห็นด้วยอย่างมาก

ไม่เห็นด้วย

ยังไม่ตัดสินใจ

เห็นด้วย

เห็นด้วยอย่างมาก

ข้อความ	ไม่เห็นด้วยอย่างมาก	ไม่เห็นด้วย	ยังไม่ตัดสินใจ	เห็นด้วย	เห็นด้วยอย่างมาก
1. ฉันต้องการจะให้การดูแลผู้ป่วยโรคเอดส์ เพราะถือว่าเป็นความรับผิดชอบทางวิชาชีพของฉัน					
2. ฉันต้องการจะอาสาสมัครในการดูแลผู้ป่วยโรคเอดส์					
3. นักศึกษาพยาบาลควรจะได้รับมอบหมายให้ดูแลผู้ป่วยโรคเอดส์					
4. สมาชิกในครอบครัวและเพื่อนของฉันไม่รู้สึกกังวลที่จะติดต่อกับพยาบาลที่ดูแลผู้ป่วยโรคเอดส์					

ข้อความ	ไม่เห็น ด้วย อย่างมาก	ไม่เห็น ด้วย	ยังไม่ ตัดสินใจ	เห็นด้วย	เห็นด้วย อย่างมาก
5. ฉันคงจะไม่ลังเลใจในการช่วยฟื้นคืนชีพผู้ป่วยที่เป็นโรคเอดส์ด้วยวิธีการใช้ปากต่อปาก แม้ว่าจะไม่มีอุปกรณ์ป้องกันการติดเชื้อไวรัสเอชไอวีอยู่ในขณะนั้น					
6. พยาบาลผู้ซึ่งตั้งครรภ์ ไม่ควรจะให้การดูแลผู้ป่วยโรคเอดส์					
7. พยาบาลผู้ซึ่งมีบุตร ไม่ควรจะให้การดูแลผู้ป่วยโรคเอดส์					
8. ฉันต้องการจะขอย้ายไปทำงานที่แผนกผู้ป่วยอื่น หากฉันจะต้องให้การพยาบาลผู้ป่วยโรคเอดส์					
9. ฉันต้องการจะลาออกจากการเป็นพยาบาล หากฉันต้องให้การดูแลผู้ป่วยโรคเอดส์					
10. ฉันรู้สึกพึงพอใจที่ไม่ต้องดูแลผู้ป่วยรักร่วมเพศที่เป็นโรคเอดส์					

ข้อความ	ไม่เห็น ด้วย อย่างมาก	ไม่เห็น ด้วย	ยังไม่ ตัดสินใจ	เห็นด้วย	เห็นด้วย อย่างมาก
11. ฉันรู้สึกพึงพอใจที่ไม่ต้องดูแลผู้ป่วยที่เป็นโรคเอดส์					
12. ผู้ป่วยโรคเอดส์ควรได้รับการดูแลเช่นเดียวกับผู้ป่วยอื่นๆ					
13. ฉันรู้สึกพึงพอใจที่ไม่ต้องดูแลผู้ป่วยที่เป็นโรคเอดส์จากการติดยาเสพติดชนิดฉีดเข้าทางเส้นเลือดดำ					
14. ฉันคิดจะทำงานในหอผู้ป่วยที่ดูแลผู้ป่วยโรคเอดส์					

VITA

Wunvimul Benjakul was born in 1962 in Trang province, Thailand. She attended the high school at Prakanongpitayalai School and studied in nursing for her bachelor degree (B. Sc; Nursing and Midwifery) from Mahidol University, Thailand in 1984. She worked as a staff nurse at the surgical ward of Songklanagarind Hospital, Hatyai, Thailand for four years and after that transferred to work as a nursing faculty at Faculty of nursing, Prince of Songkla University for 4 years. She pursued her first master degree in medical surgical nursing (M.N.S.) from Chiang-Mai University and was granted in 1993. She came to the U.S. to study on her second master degree (M.S.) in clinical nurse specialist track and continued her doctoral degree in nursing science at the Sinclair School of Nursing, University of Missouri-Columbia since 1998. She had ten years of experience in adult nursing and two months of experience in pediatric nursing. During her doctoral study, she has had research experiences in the infection control nursing, aging, child health, and domestic violence. She is currently a nursing faculty at the Faculty of Nursing, Prince of Songkla University, Thailand.