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AN APPLICATION OF PROTECTION MOTIVATION THEORY TO AIDS PREVENTIVE BEHAVIORS MODIFICATION AMONG AMPHETAMINE ABUSERS IN THANYARAK HOSPITAL, PATHUMTANI PROVINCE

WIMON LUKANAPICHONCHUT

อภินันทนาการ
จาก
บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล

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AIDS is a serious public health problem, affecting people's health status, family and social and economic aspects. Currently, high-risk heterosexual behavior is the risk main factor of HIV infection. Amphetamine abusers have high-risk behaviors toward HIV infection. This study is a quasi-experimental research with the aim of studying an application of the Protection Motivation Theory to AIDS preventive behaviors modification among amphetamine abusers at Thanyarak Hospital, Patumtani province. One hundred male amphetamine abusers were selected as subjects of this study. Fifty subjects were assigned to the experimental group, and the rest were assigned to the comparison group.

The experimental group participated in the health education program while the comparison group did not. Health education activities included group discussions, games, role-playing, demonstrations, and condom use with a model. Self-administered questionnaires, and condom use observation were used for data collection, both before and after the program, and in the follow-up stage.

The results of the study revealed that after the program, and the in follow up stage, the experimental group had significantly (p-value < 0.001) better perceived severity, perceived probability, self-efficacy, response efficacy and AIDS preventive behaviors, than before the program and than that of the comparison group. According to the findings, the application of the Protection Motivation Theory can change AIDS preventive behaviors among amphetamine abusers. The results of this research suggest that the Protection Motivation Theory is effective for use in AIDS prevention with high-risk group.

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วิมล ลักขณาภิชนชัช : การประยุกต์ทฤษฎีแรงจูงใจเพื่อป้องกันโรคเอดส์ในกลุ่มผู้เสพแอมเฟตามีนของโรงพยาบาลธัญญารักษ์ จังหวัดปทุมธานี (AN APPLICATION OF PROTECTION MOTIVATION THEORY TO AIDS PREVENTIVE BEHAVIORS MODIFICATION AMONG AMPHETAMINE ABUSERS IN THANYARAK HOSPITAL, PATHUMTANI PROVINCE) คณะกรรมการควบคุมวิทยานิพนธ์: นิรัตน์ อิมามี M.P.H.,Ph.D., เฉลิมพล ตันสกุล M.P.H.,ส.ด.,พิทยา จารุพูนผล M.D., MPHM., อังกูร ภัทรากร M.D., Dip. Thai Board of Psychiatry. 109 หน้า ISBN 974-665-610-4

โรคเอดส์เป็นปัญหาสาธารณสุขที่สำคัญ ซึ่งมีผลกระทบต่อสุขภาพ ครอบครัว สังคม ตลอดจนภาวะเศรษฐกิจของประเทศชาติ ในปัจจุบันพบว่าสาเหตุสำคัญของการแพร่ระบาดของโรคเอดส์เกิดจากการมีเพศสัมพันธ์กับเพศตรงข้ามมากเป็นอันดับหนึ่ง ในกลุ่มผู้เสพแอมเฟตามีนเป็นอีกกลุ่มหนึ่งที่มีโอกาสเสี่ยงต่อการคิดเชื้อเอช ไอ วี การวิจัยนี้เป็นการวิจัยกึ่งทดลองมีวัตถุประสงค์เพื่อศึกษาประสิทธิผลของการประยุกต์ทฤษฎีแรงจูงใจเพื่อป้องกันโรคเอดส์ในกลุ่มผู้เสพแอมเฟตามีนกลุ่มตัวอย่างเป็นผู้เสพแอมเฟตามีนที่เข้ารับการบำบัดรักษาในโรงพยาบาลธัญญารักษ์ จังหวัด ปทุมธานีจำนวน100 คน กลุ่มทดลอง 50 คน กลุ่มเปรียบเทียบ 50 คน กลุ่มทดลองจะได้เข้าร่วมกิจกรรมที่จัดให้ ซึ่งประกอบด้วยการอภิปรายกลุ่ม เกม การแสดงบทบาทสมมติ และการสวมถุงยางอนามัยกับแบบจำลอง เก็บรวบรวมข้อมูลก่อนการทดลอง หลังการทดลองและระยะติดตามผลด้วยแบบสอบถามและแบบสังเกตการสวมถุงยางอนามัยกับแบบจำลอง

ผลการวิจัยพบว่าหลังการทดลองและระยะติดตามผลกลุ่มทดลองมีการเปลี่ยนแปลงพฤติกรรมการป้องกันโรคเอดส์ในด้านการรับรู้ความรุนแรงของโรคเอดส์ การรับรู้โอกาสเสี่ยงของการเกิดโรคเอดส์ การรับรู้ความสามารถของตน การรับรู้ผลดีของการปฏิบัติตามคำแนะนำเพื่อป้องกันโรคเอดส์ และพฤติกรรมการป้องกันโรคเอดส์มากกว่าก่อนการทดลองและมากกว่ากลุ่มเปรียบเทียบอย่างมีนัยสำคัญทางสถิติ ($p - value < 0.001$) ผลการวิจัยนี้แสดงให้เห็นว่าการประยุกต์ทฤษฎีแรงจูงใจเพื่อป้องกันโรคเอดส์สามารถทำให้กลุ่มผู้เสพแอมเฟตามีนสามารถปรับเปลี่ยนพฤติกรรมการป้องกันโรคเอดส์ในทางที่ดีขึ้นกว่าก่อนการทดลอง

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CHAPTER I

INTRODUCTION

1.1 Background of the problem

Acquired Immune Deficiency Syndrome (AIDS) is an importance health problem in Thailand. The numbers of HIV infected population and AIDS patients have been rapidly increased affecting their family, and communities. It is also a world-wide public health problem in many aspects such as numbers of affected person, economic, social and country security problems.

Although Thailand has had many campaign to prevent HIV transmission through radio, television and other medias, or another activities, but the infection rate is still increasing since 1984. It can affect all age groups especially in 25-29 and 30-34 years old (28.3 % and 24.1 %, respectively) (Epidemiology Division, 2000:1). There are many effects in those groups such as economical, psychological and somatic aspects. It is not affecting only individual but also on a national country level.

At present it is known that AIDS is an infectious disease caused by virus. There are routes of transmission, which were sexual contact, infected blood, and mother to infant. The most common route is sexual contact with HIV positive person (Boonmongkon P. and Ma-oon W., 1998). Male heterosexual intercourse is the highest group (62.37%), followed by female heterosexual intercourse (18.50%) from AIDS statistic data (Epidemiology Division, 2000:3). There are many risk factors in these

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groups such as unsafe sex behavior, curiosity behavior and factors from amphetamine and other drugs.

In Thanyarak Hospital, Department of medical service, which is the Thai largest drug-dependence treatment hospital, patients were amphetamine, and heroine abuser 64.13 % and 25.55 % respectively (Thanyarak medical data, 1999). The HIV- infected rate among amphetamine abuser was 4.13 % (Data from 11352 patients in November 1997 to April 2000 at Thanyarak Hospital). There is a great amount of anecdotal evidence on the relationship of amphetamine use and various sexual behaviors. Amphetamine may be used during sexual activities to intensify sexual acts, heighten pleasure, lengthen the duration of intercourse, and lessen inhibitions. The abuse of amphetamine is also known to lead to uncharacteristically aberrant or deviant sexual behaviors, the use of prostitutes, and HIV high-risk behaviors (Richard A.Rawson, 1999: 22-23). Other researches confirm methamphetamine (amphetamine derivative) use during sex, and risky sexual behaviors with human immunodeficiency virus (HIV) seropositivity among clients of publicly funded HIV-testing site in California who reported never injecting drugs. Among gay, bisexual, and heterosexual men and heterosexual women, users of methamphetamine reported more sexual partners than non-methamphetamine users. Among heterosexuals, a greater percentage of methamphetamine users than nonusers, participated in anal intercourse. Methamphetamine use was independently related to decreased condom use during vaginal and anal intercourse, with prostitutes. In addition, methamphetamine users were more likely to have had a sexually transmitted disease. Those were important data,

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which interested the researcher in AIDS high-risk behaviors among amphetamine abusers, and initiated pilot study in 30 male amphetamine abusers in Thanyarak Hospital.

Demographic characteristics of pilot group: 19-35 years old (average 23.2 years old), marital status were single and married 73.33% and 26.7% respectively, occupation were agriculture, student, labor and no job 30%, 26.6%, 23.4% and 20% respectively.

AIDS information resources: All of pilot group received AIDS information from television, radio, advertisings board, newspaper and health personnel in 76.67%, 66.40%, 33.33% respectively. That was confirmed by a research of Panyanuvat A. (1993)

Amphetamine using data: They were individual user, group user, and uncertain user 16.66%, 10% and 73.33% respectively.

Sexual behavior and amphetamine use data: 70% of subjects had increasing sexual desire after using amphetamine 26.67% had group sex after using amphetamine.

Perceived severity of AIDS and response efficacy of AIDS preventive behavior: 43.33 % thought that having good health could prevent HIV infection, 33.33 % did not know that AIDS could not be cured, 50 % thought that condom-using interupted sexual intercourse.

Practice data by observation of condom using with model: 93% did not look for expiration date, all of subjects did not test package leakage, and tear the package in wrong way which could destroy condom, 86.67% removed condom in wrong way.

From focus group discussion, the amphetamine abuser thought that they could not stop their sexual desire after using amphetamine and which led to unsafe sexual intercourse. Some of them used condom when they had sex with prostitute. Some of them

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did not use condom, although the condom was available. They tried to pay more money for having sex without condom.

An in-depth interview was conducted about amphetamine using and sexual behaviors in 3 subjects between 19 and 20 years old. They usually smoked amphetamine with their friends. The smoking location was a friend's home or their home when their parents were out. If their parents were in the house, they would select a private room so the parents would not know their amphetamine smoking activities. In the same amphetamine smoking activity, there might be male and female friends, which were in the same age. They changed their friends each time when they smoked amphetamine because they wanted to know more friends. When they smoked amphetamine they usually talked about sex, which led to sexual intercourse. The frequency of sexual intercourse was 3-4 times per week.

Data from literature review and pilot study as mentioned above suggested that amphetamine abusers had low severity, perceived probability, response efficacy, self-efficacy, and practice of HIV transmission prevention. The stimulation action of amphetamine, behavior of amphetamine-using group, and low perception as describe above, cause amphetamine abusers in high-risk group of HIV infection.

The detoxification phase for amphetamine abusers is 3 weeks in Thanyarak Hospital. The first and second week in detoxification phase have 2 types of treatment programs.

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1. Medical detoxification for psychological and physical complication.

2. Group therapy (Unaklap T.1998: 65) after February 2000 in-patients in detoxicification phase use a group therapy model from new world project every Monday to Friday. The purposes of this group therapy were conducting patients to think together and making a plan for relapse prevention.

Third week of detoxification phase is motivation program. The purpose of motivation program is preparing patients to come back home or preparing patient to be in therapeutic community. There are no health education programs about AIDS prevention for these amphetamine abusers.

So researcher interested in organizing health education programs by using application of Protection Motivation Theory program for AIDS prevention behaviors modification among amphetamine abusers, and assessed the result after conducting programs in term of severity, perceived probability, response efficacy, self-efficacy and practicing to prevent HIV transmission prevention. Researcher thinks that this study will be the program for preventing HIV transmission among amphetamine abusers.

1.2 Research Questions

Does the application of Protection Motivation Theory Program for AIDS preventive behaviors modification among amphetamine abusers in Thanyarak Hospital Pathumtani province affected their behaviors in 3 aspects?

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1. Threat appraisal

1.1 Perceived severity of AIDS

1.2 Perceived probability to HIV infection

2. Coping appraisal

2.1 Perceived self – efficacy

2.2 Perceived response efficacy

3. AIDS preventive behaviors

1.3 Objective of the study

1.3.1 General objective

To assess the result of application on Protection Motivation Theory Program for AIDS preventive behaviors modification among amphetamine abusers in Thanyarak Hospital, Pathumtani province.

1.3.2 Specific objectives

To assess their behaviors after receiving health education programs which include:

1 Threat Appraisal

- Perceived severity of AIDS
- Perceived probability of HIV infection

2 Coping Appraisal

- Perceived self – efficacy
- Perceived response efficacy

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3 AIDS preventive behaviors.

1.4 Hypotheses

1. After participating in the health education program, subjects in the experimental group will improve their behaviors after the intervention in term of:

1.1 Perceived severity of AIDS

1.2 Perceived probability to HIV infection

1.3 Perceived self – efficacy

1.4 Perceived response efficacy

1.5 AIDS preventive behaviors

2. After participating in the health education program, the experimental group will improve their behaviors better than those in the comparison group in term of:

2.1 Perceived severity of AIDS

2.2 Perceived probability of HIV infection

2.3 Perceived self – efficacy

2.4 Perceived response efficacy

2.5 AIDS preventive behaviors

1.5 Research variables

1 Independence variable: The application of Protection Motivation Theory for AIDS prevention behaviors modification.

2 Dependence variables

2.1 Perceived severity of AIDS.

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2.2 Perceived probability of HIV transmission

2.3 Perceived self – efficacy

2.4 Perceived response efficacy

2.5 AIDS preventive behaviors.

1.6 Scope of the study

1.6.1 This study focused only on sexual HIV transmission preventive behaviors among amphetamine abusers in Thanyarak Hospital, Pathumtani province.

1.6.2 Program evaluation was conducted within three months during October to November 2000.

1.7 Assumptions

1. The data and information gathering were obtained by mean of questionnaires and observation of condoms use practiced with model, assessing perceived severity of AIDS, probability of HIV infection, self – efficacy, perceived response efficacy and AIDS preventive behaviors.

2. Information gathered by means of questionnaires and scores from observation of condoms use practiced with model, assessing the AIDS preventive behaviors had been assumed to be the most appropriate method in this situation and environment.

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1.8 Operational definition

For the purpose of this study the following terms were defined to establish a common frame of reference.

1. Amphetamine abusers means male patients admitted in detoxification ward of Thanyarak Hospital, who had amphetamine smoking, without intravenous drugs using history and age more than 19 years old.

2. The application of Protection Motivation Theory for AIDS prevention behaviors modification means a process in establishing learning activities or experiences using the applied Protection-Motivation Theory, which consists of group discussion, exchange water game, role play, demonstration and condom race. The activities are designed to develop the AIDS preventive behaviors of the amphetamine abusers for preventing themselves from HIV epidemic.

3. Perceived severity of AIDS means the perception of amphetamine abusers on the severity of AIDS that AIDS is a fatal disease which kills patients while they are still young and no any medicine or vaccine can cure it. Being infected with HIV will have severely negative effects on the patients themselves, their families and society.

4. Perceived probability of HIV infection means the perception of the amphetamine abusers on the risk of HIV infection that they have high probability to HIV infection if they maintain risk behaviors, i.e. smoking amphetamine with their girlfriends, having sex without condoms, having multiple sex partners.

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5. Perceived self-efficacy means the confidence of the amphetamine abusers in their ability to express believe or making decision in prevention of risk behaviors for infection.

6. Response efficacy of AIDS preventive behaviors means the confidence of the amphetamine abusers in the AIDS preventive behaviors that the behaviors can protect them from HIV infection.

7. AIDS preventive behaviors means the behaviors of the amphetamine abusers to prevent the AIDS risk behaviors by

7.1 condom carrying

7.2 condom used correctly during sexual intercourse (except his wife)

7.3 give up promiscuity

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CHAPTER II

LITERATURE REVIEW

This research aims to assess Protection Motivation Theory for AIDS preventive behaviors modification among amphetamines abusers at Thanyarak Hospital Pathuntani Province, Department of Medical Services. Literature reviews are shown as follows:

2.1 Knowledge about AIDS.

2.1.1 History

2.1.2 Epidemiology

2.1.3 Pathology

2.1.4 Transmission

2.1.5 Prevention

2.2 Related Theory: Protection Motivation Theory .

2.3 Knowledge about amphetamines.

2.3.1 History of amphetamine

2.3.2 Epidemiology of amphetamine

2.3.3 Pharmacology of amphetamine

2.3.4 Mechanism of action

2.3.5 Action of amphetamine

2.4 Related Research

2.4.1 Research related to Protection Motivation Theory for AIDS-prevention.

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2.4.2 Research related to HIV infection among amphetamines abusers.

2.5 Conceptual Framework

2.1 Knowledge about AIDS.

2.1.1 History of AIDS.

AIDS stands for Acquired Immune Deficiency Syndrome.It was first recognized in the United States in the summer of 1981, when the Centers for Disease Control and Prevention (CDC) reported the unexplained occurrence of Pneumocystis carinii pneumonia in five previously healthy homosexual men in Los Angeles and of Kaposi's sarcoma in 26 previously healthy homosexual men in New York and Los Angeles. Within months, the disease became recognized in male and female injection drug users (IDUs) and soon thereafter, in recipients of blood transfusions and in hemophiliacs. As the epidemiological pattern of the disease unfolded, it became clear that a microbe transmissible by sexual contact and blood or blood products was the most likely etiologic agent of the epidemic.

In 1983, human immunodeficiency virus (HIV) was isolated from a patient with lymphadenopathy, and by 1984 it was demonstrated clearly to be the causative agent of HIV. The virus, which belongs to the lentivirus subfamily of the large family of retroviruses (Retroviridae) was formerly called lymphadenopathy associated virus (LAV), human T lymphotropic virus (HTLV) type III, and HIV-associated retrovirus (ARV). In 1985, a sensitive enzyme-linked immunosorbent assay (ELISA) was developed, which has led to an appreciation of the scope of HIV infection among cohorts of individuals in

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the United States who admit to practicing high-risk behavior as well as among selected populations that had been screened, such as blood donors, military recruits and active-duty military personnel, Job Corps applicants, and patients in selected sentinel hospitals. In addition, seroprevalance studies revealed the enormity of the global pandemic, particularly in developing countries. Such surveillance approaches, when combined with monitoring of CD4+ T cell counts as a parameter of immunosuppression, led to the realization that there is a broad spectrum of HIV disease, ranging from asymptomatic infection and clinical latency to advanced clinical disease, the latter constituting AIDS.

The first case of AIDS in Thailand was reported in September 1984. Progressive numbers of AIDS cases as well as people with HIV were reported throuthout the following year. Early cases were generally confined to Thai homosexual males returning from abroad. This was followed by an explosive spread of HIV infection among injective drug users (IDUS) in 1987 and 1988. The virus then to male and female sex workers and their clients with the result that heterosexual transmission became increasingly important. By 1991 many province started reporting cases of perinatal transmission. In 1989 every unit of donated blood is screened for HIV. The HIV/AIDS epidemic is more advanced in the north of Thailand and the largest numbers of AIDS cases are reported from that part of the country (except Bangkok). It is expected that the HIV/AIDS epidemic in Thailand will continue to expand, with heterosexual intercourse being the most important mode of transmission.

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2.1.2 Epidemiological of HIV.

By late 1993, close to 850,000 cases of AIDS had been reported to WHO from over 180 countries and territories (WHO 1994: 17). For several reasons, however, this is thought to represent only a small proportion of the true world total. Many countries were slow to accept that they had an AIDS problem and to set up systematic surveillance and reporting. Moreover, where expertise and blood testing facilities are lacking, it may be difficult to differentiate AIDS from other common diseases. And in remote parts of the developing world, many people fall ill and die without ever coming into contact with modern health services.

WHO estimates that by early 1994 more than 3 million cases of AIDS had actually occurred, including over 500,000 infants born to HIV infected women. But the number of AIDS cases gives a forecast rather than a true reflection of the health crisis facing the world, for AIDS is the late stage of infection with a virus that takes many years - often more than a decade - to cause illness. The real measure of the scope of the epidemic is the number of people infected with HIV. Extrapolating from the data that are available, WHO estimates that about 1 million children and more than 14 million young people and adults worldwide had been infected with HIV by early 1994, of whom about 12 million were still alive. By the turn of the century, if WHO's conservative forecasts prove correct, the cumulative total of HIV infections may reach 30-40 million and the number of AIDS cases more than 10 million. (WHO 1995: 5).

AIDS was first reported in Thailand in September 1984 in a homosexual male who had lived for some years in the United States. From that time until 1987, total .of 8 cases

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of AIDS were identified. In that year, the number of cases of AIDS related complex (ARC) was 27, and 907 people tested HIV positive (Ministry of Public Health 1988). These initial cages of HIV and AIDS in Thailand were confined to Thai homosexual and bisexual men, foreign tourists, and intravenous drug users (IUDs). As a result, AIDS was-perceived as a disease of homosexuals and foreigners.

The second wave of the epidemic occurred a year later among brothel workers infected through sexual contacts with infected partners. It was believed that these sexual partners were IUDs and bisexuals infected in the first wave of the epidemic. In 1990, HIV infection was reported among heterosexual men, many of whom were clients of prostitutes. This third wave of the epidemic was first discovered among men seeking treatment at public Sexually Transmitted Disease (STD) clinics. The wives and girlfriends of infected men constituted the next wave of the epidemic. In the fifth and last wave of the epidemic HIV-positive women infected their infants. A third or more of infants of infected mothers will be infected during pregnancy or childbirth.

Ten years after the first AIDS case was reported in Thailand, the epidemic was spreading rapidly among all groups. There were a total of 31,439 full-blown AIDS cases and 13,267 symptomatic HIV patients reported to the Ministry of Public Health from the beginning of the epidemic until December 1995.

According to the latest findings, 78.17 percent of HIV infections are attributed to heterosexual transmissions. Although decreasing, infection among IUDs remains high and accounts for 7.3 percent of the total AIDS cases. The expectation of a rapid rate of transmission of the disease among homosexual and bisexual men has not materialized.

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By 1995 these groups made up only 1 percent of all AIDS cases in Thailand. Infection is concentrated in people aged 15 to 45 years. Although transmission throughout the sexually active population will continue to render infection levels equal between males and females, presently more men are infected and the male to female ratio is 6.59: 1 for AIDS cases and 5.09: 1 for symptomatic HIV seropositive cases. Male cases peak in the 25-29 age group while women peak younger, in the 20-24 age group. This difference may be as a result of the earlier age at which women marry and/or the general preference of men for younger partners.

Geographically, there is a wide variation in the prevalence of HIV between different groups and within different areas. Rapid economic change in the last decade-bas contributed to widespread mobility among people in Thailand. The HIV sentinel surveillance carried out by the Ministry of Public Health every six months shows that the epidemic is most advanced in the north and central provinces (Som-arch Wongkhomthong, et al 1995: 18). The six provinces-found to have the highest frequency of AIDS cases were Chiangmai, Chiangrai,. Bangkok, L Lumpugn, Prayau and Lumpoon, respectively found that almost 50 percent of AIDS and symptomatic HIV seropositive cases were found in the five northern provinces mentioned earlier.

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2.1.3 Pathology of HIV

HIV is an extremely small virus and is spherical in shape. HIV is simple in structure: it consists of an outer protein shell and an inner core of genetic material. When the outer shell is damaged, HIV can no longer infect people, it cannot survive outside the human body. It can easily killed by heat, disinfectant, household bleach and even exposure to air.

HIV attacks a kind of white blood cell (T-helper cell or CD4 lymphocyte) and cells in the nervous system. When HIV attacks the T-helper cells, its genetic material becomes incorporating into the host cells. At this stage, the virus may persist in the human cells in a dormant state. Once the dormant infected T-helper cells become activated, the viral genetic material is triggered to make more copies of the viral genetic materials and proteins. As a result, thousands of new HIV was produced within each infected cell. The newly-product HIV, upon release, can be in turning infected other healthy T-helper cells. Thus, HIV causes the T-helper cells to decrease in number and cease functioning effectively. Since these cells are important components of the body's immune system, the result is a progressive loss of immunological functions. AIDS represents the late stage of the HIV infection, which is characterized by the occurrence of opportunistic infections and tumors. Owning to the integration of HIV into the human genome, it is very difficult to eradicate HIV from the body. HIV also alters its genetic structure at a rapid rate. These properties increase the difficulty of developing an effective vaccination against HIV.

Symptoms of HIV infection may not appear for up to ten years or more after a person is infected with HIV. When symptoms of HIV infection first appear, a person may

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have persistent fever and diarrhea, unexplained fatigue, or swollen lymph nodes in the neck, groin, and armpits. These symptoms often disappear and reappear several times before more serious symptoms appear.

As the HIV infection progresses, more specific symptoms appear

- unexplained fatigue
- persistent diarrhea
- white spots in the mouth
- swollen lymph nodes for two months or longer
- fever, chills, and night sweats that last several weeks or months
- persistent dry cough or shortness of breath
- reddish-purple blotches on the skin and inside the mouth, nose, eyelids, or rectum

The most serious effects of HIV infection involve destruction of the immune system. When a person becomes infected with a pathogen, antibodies are produced. Special white blood cells called T cells fight pathogens in the body by triggering the production of antibodies. HIV multiplies and destroys T cells. Without T cells, a person can get a variety of diseases, including opportunistic diseases. An opportunistic disease is a disease caused by a pathogen that a healthy immune system would normally be able to overcome. Pneumocystis carinii (NEW moh sihs tus kih RIHN ee i) pneumonia, a rare form of pneumonia, and Kaposi's sarcoma, a rare form of cancer, are two common opportunistic diseases.

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HIV can also affect the nervous system and destroy brain tissue. AIDS dementia complex is a common nervous system disorder associated with AIDS. Persons suffering from this disorder are at first depressed. They later become forgetful and find it difficult to concentrate on simple tasks. As the disease progresses, the person eventually falls into a nearly comatose state.

Once a person is infected with HIV, he or she will always be infected and be able to infect others. Unfortunately, a person who is infected with HIV may not know he or she is infected because no symptoms may be present. A person who has had many sexual partners or who has shared needles may be infected and not know it. A test called the ELISA assay is used to test a person for the presence of the HIV antibody. Sometimes, a second ELISA may be given to get more accurate results. A negative test result can occur even if a person is infected with HIV. It may take from two to fourteen months after HIV infection for a positive test result. If ELISA proves positive, a second test called the Western blot test is given to confirm the presence of HIV antibodies.

If a person tests positive, medical help is important. Once the symptoms of HIV infection appear, the person may be treated with AZT. AZT is a drug that delays progression of AIDS by keeping HIV from producing more viral particles. Although this drug slows the harmful effects of HIV infection, it is not a cure. There is no cure for AIDS. AZT treatment costs thousands of dollars per year and produces side effects in some people. For this reason AZT is not always helpful.

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2.1.4 HIV transmission.

HIV is transmitted from person to person by exchange of body fluids, such as during sexual contact (homosexual or heterosexual). When a person is infected with HIV, the virus is found in body secretions such as blood, sweat, saliva, vaginal secretions, and semen. Blood and semen of an infected person contain the most concentrated amount of HIV. HIV can be transmitted when an infected person exchanges body fluids with a person who is not infected. The virus must get into the bloodstream for a person to become infected. Engaging in sexual contact with an infected person is considered a risk behavior that can spread HIV.

Transmission can occur through the use of HIV-contaminated needles and instruments, e.g. sharing of needles and syringes by intravenous drug users. A person who shared needles or syringes can become infected with HIV since it will usually be found in small amounts of blood remaining in the needle or syringe.

HIV can be transmitted from an infected pregnant female to her developing baby. The virus can pass from her bloodstream to that of the baby through the placenta. The baby then becomes infected with HIV.

There have been some cases of HIV infection that resulted from blood transfusions. As a result, blood has been screened in the United States since 1985 for the presence of HIV antibodies. Now the risk of HIV infection from blood transfusions is extremely low in the United States. However, world travelers should check about the blood supply in other countries. The Surgeon General and the Centers for Disease Control state that there have been no known cases of AIDS having been transmitted

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through behaviors such as hugging, closed-mouth kissing, touching, shaking hands, sharing bathroom facilities, or being a blood donor.

2.1.5 HIV prevention.

HIV can be prevented in many ways, but they are not always practiced. People become infected when they do not practice safe behaviors. That is why we have to extensively campaign on prevention.

AIDS is fatal, incurable and sexually transmitted disease. It is transmitted by both homosexual and heterosexual practices. Some sexual behaviors, such as intercourse, carry high risk of transmission which occurs more readily from an infected man to a women than from an infected woman to man.

It is well known that the best way to prevent AIDS infection is using condoms and has only one sexual partner. But that does not seem to happen in the real world. Moreover, people should have blood tests before getting marriage in order to make sure that their partners do not have HIV. This can be done by having blood test at least six months before having unprotected sex with the husband / wife. Family planning also plays a role in preventing infection during pregnancy, which is the third cause of infection after sexual intercourse and injections (Rojanapityakorn, W., 1993:10-17).

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2.2 Related Theory: Protection Motivation Theory.

According to HIV infection/AIDS is severe disease and there are no any medicines or treatment can cure this disease. HIV-infected persons among amphetamine abusers are a high-risk group because they usually have unsafe sex behaviors. So they should have a safer sex to prevent from HIV infection. Protection Motivation Theory is a proper program to modify their behaviors. This research focuses on Protection Motivation Theory in an application for HIV preventive behavior modification.

The Protection Motivation Theory (Rogers & Prentice-Dunn, 1986: 153-161) Originally proposed to provide conceptual clarity to the understanding of fear appeals, Protection Motivation Theory (PMT) shares the HBM' s emphasis on the cognitive processes mediating attitudinal and behavioral change. Although the theory was initially formulated in 1975, it is the revised version that will be discussed in the present article. The reader is referred to the above sources for the fuller discussion of the theoretical foundation and mechanisms of PMT.

As can be seen in Figure 1. Environmental or interpersonal sources of information about a health threat initiates two cognitive processes, threat appraisal and coping threat appraisal. The *threat appraisal* process evaluates the factors that increase or decrease the probability of making the maladaptive response. The maladaptive action can be a behavior that could be enacted, such as beginning to smoke, or it could be a current behavior such as wearing a seat-belt. Variables that increase the likelihood of the maladaptive response are intrinsic rewards (e.g. bodily pleasure) and extrinsic rewards (e.g. social approval). Factors reducing the probability of the maladaptive response are the

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assessed severity of the threat and perceived vulnerability to the threat. Fear arousal influences perceived severity but has only an indirect effect on the eventual behavior enacted. The total threat appraisal is an algebraic sum of the variables that increase and decrease the maladaptive behavior likelihood.

In addition to the evaluating threat, the individual also makes a coping appraisal. This consists partially of judgments about the efficacy of a preventive response that will avert the perceived threat (response efficacy) plus the assessment one's ability to successfully initiate and complete the adaptive response (self-efficacy) component is crucial to the successful avoidance of the threatening situation. An important feature of PMT, the explicit role of personal mastery has been neglected in virtually all expectancy-value theories. Thus, the implication is that the existence of the effective alternative to the maladaptive health behavior is not sufficient; one must also believe him or herself capable of carrying out the preventive regimen. It should be noted that an individual' sense of self-efficacy is conceptually independent of the 'barrier' referred to in the HBM. Thus, a person with a strong sense of self-efficacy might easily overcome any barriers (e.g. inconvenience, expense), while the same barriers might overwhelm a person with a weak sense of self-efficacy. Self-efficacy influences not only the initiation of the coping response, but also the amount of energy expended and the person's persistence in the face of obstacles.

Response efficacy and self-efficacy evaluations are factors increasing the probability of making the adaptive response. Decreasing that likelihood is response costs. Response costs may consist of 'inconvenience, expense, unpleasantness, difficulty,

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complexity, side effects, disruption of daily life, and overcoming habit strength. Coping appraisal is totaled from a sum of the efficacy components minus any costs with the adaptive response.

Figure 2 indicates that threat appraisal and coping appraisal are combined to form protection motivation. As an intervention variable, protection motivation initiates, sustains and directs behavior. A coping response produced by protection motivation may be an explicit behavior (e.g. beginning an aerobic exercise program) or the inhibition of and action (e.g. ceasing to smoke).

As an intervention variable, protection motivation may be measured by a variety of methods. However, an assumption of PMT is that it is most appropriately assessed by behavioral intentions. PMT developed from theory and research on fear-arousing communications and attitude change. Traditionally, attitudes have directional and dynamic (i.e. motivation) influences on behavior. Furthermore, the traditional dependent measure in this area has been attitude change, the internalized acceptance of the communicators recommendation. The current concept that best retains these characteristics is behavioral intentions. Although we are not arguing that intentions are a completely satisfactory substitute for single-act, repeated-acts, or multiple-acts of behavioral criteria, we agree with Fishbein and his colleagues that intentions accurately predict behavior if (i) they are measured at the same level of the specificity; (ii) the intentions remain stable; and (iii) the behavior in question is under volitional control. For example, Harrison found that intentions not only predicted college attendance among high school students some 2 - 3 years after initial measurements were taken, but also

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successfully predicted the ultimate educational level attained 15 years later. Such results should allay concerns about the choice of behavioral intentions as the appropriate tool for evaluating the impact of protection motivation.

In summary. PMT assumes that protection motivation is maximized when: (i) the treat to health is severe: (ii) the individual feels vulnerable: (iii) the adaptive response is believed to be an effective means for averting the threat: (iv) the person is confident in his or her abilities to complete successfully the adaptive response: (v) the rewards associated with the maladaptive behavior are small: (vi) the costs associated with the adaptive response are small. Such factors produce protection motivation and, subsequently, the enactment of the adaptive, or coping, response.

An additive model holds *within* each appraisal process. When combining components occur *between* the protections and coping appraisal processes, interaction effects will occur. It is assumed that if response efficacy and/or self-efficacy are high, then increases in severity and/or vulnerability will produce a positive main effect on intentions; on the other hand, if response efficacy and/or self-efficacy are low, increases in severity and/or vulnerability will either have no effect or a boomerang effect, actually reducing intentions to comply with the health recommendation. Thus, the theory predicts outcomes that violate a completely rational decision-making process. There are at least two conditions in which individuals feel incapable of protecting themselves: (i) if the only available coping response is ineffective (i.e. low response efficacy); and (ii) if they believe they cannot perform the necessary coping response (i.e. low efficacy). Research has confirmed this predicted interaction effect between vulnerability and response

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efficacy. If the recommended coping response was a highly effective preventive response, then increasing belief in vulnerability to the danger increased intentions to adopt that practice; but, if the response was believed to be ineffective, increasing feelings of vulnerability *decreased* intentions to adopt the response, producing a boomerang effect (i.e. smokers actually intended to increase their cigarette consumption, (Roger and Mewborn, 1976; and social drinkers to increase their alcohol consumption.

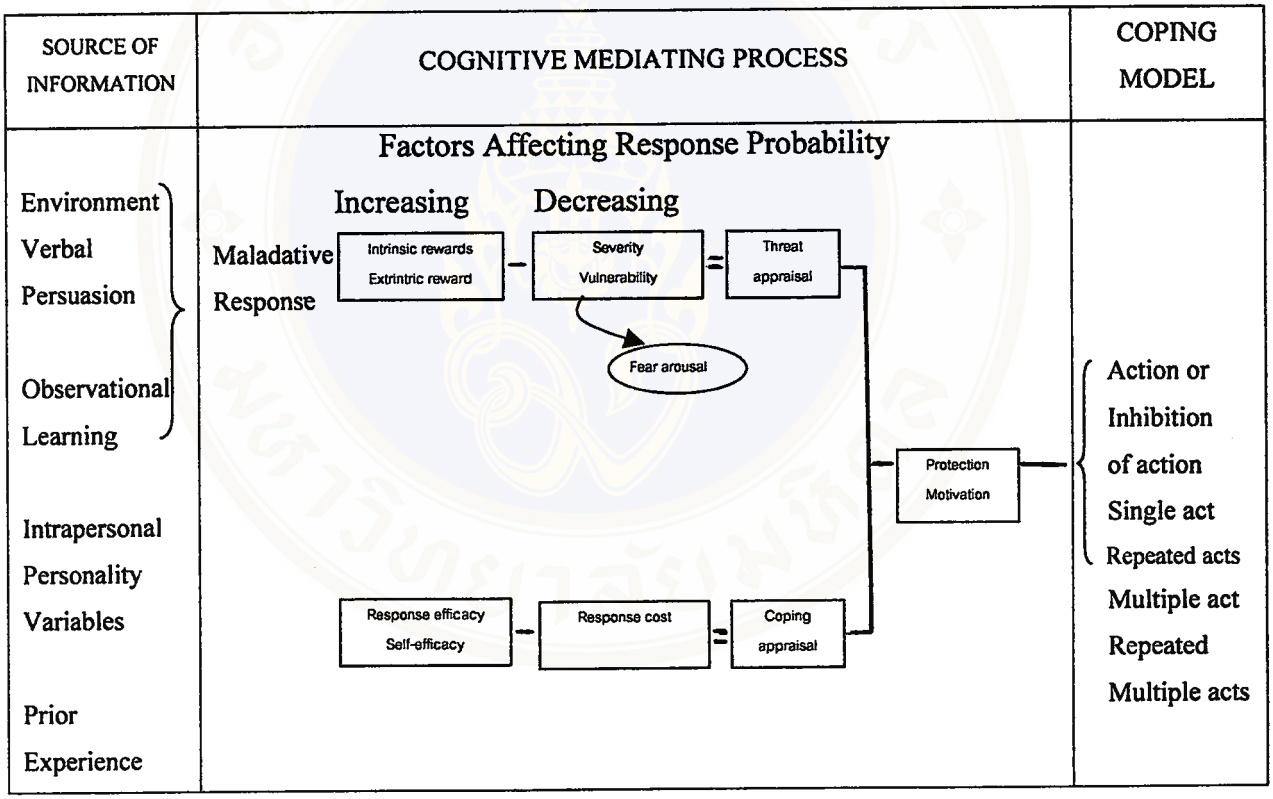

Figure 1: Scheme of Protection Motivation Theory (Rogers, 1983)

Rogers, (1983) revised Protection Motivation Theory (PMT) is a major theory in health psychology which attempts to explain the cognitive mediation process of behavioral change in terms of threat and coping appraisal. The PMT model's threat appraisal component depends on: (1) the person's estimate of the threat of the disease (perceived

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change in terms of threat and coping appraisal. The PMT model's threat appraisal component depends on: (1) the person's estimate of the threat of the disease (perceived severity); and, (2) his or her estimate of the chance of contracting the disease (perceived vulnerability). The model's coping appraisal consists of (1) the individual's expectancy that carrying out recommendations can remove the threat (response *efficacy); and,* (2) belief in one's capability to execute the recommended course of action successfully (self-efficacy). PMT assumes that the motivation to protect oneself from danger is a positive linear function of the four cognitive beliefs where the individual perceives: (1) the threat is severe; (2) one is personally vulnerable to the threat; (3) the coping response is effective in averting the threat; and (4) one has the ability to perform the coping response. According to the theory, the emotional state of fear influences attitudes and behavior change indirectly through the appraisal of the severity of danger as shown in Figure 2. (Plotnikoff & Higginbotham, 1995: 399)

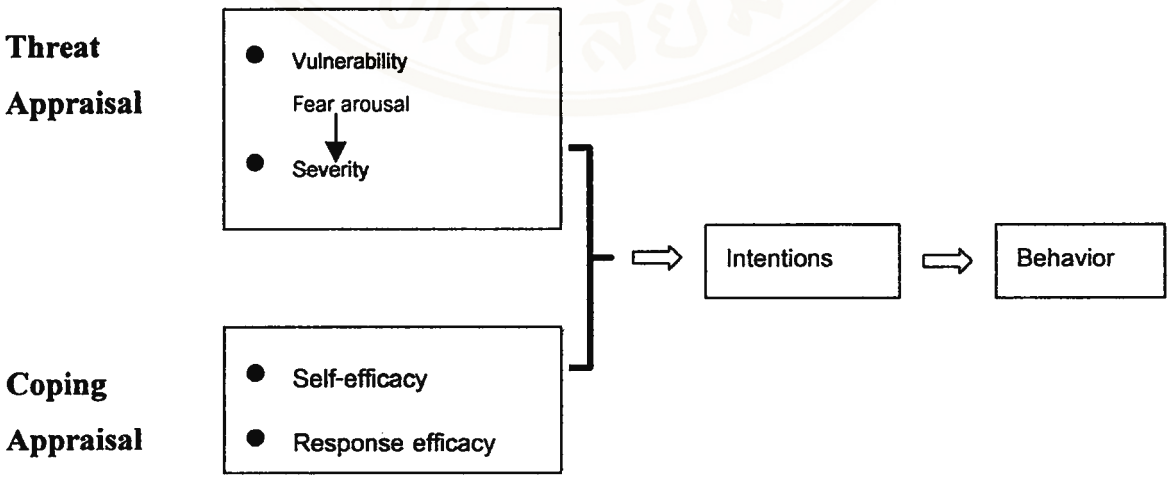

Figure 2: Protection Motivation Theory

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The stretretrength of Protectio/EMotivation is estimated through measuring intentions to adopt the recommended behavior. Thus, the cognitive mediators (severity, vulnerability, response efficacy and self-efficacy) should have significant associations with the intentions to perform the desired behavior. However, recent studies (e.g. Wurtele and Maddux, 1987; Mulilis and Lippa, 1990; Seydel, Taal and Weigman, 1990; Aspinwall, Kemeny, Taylor, Schneider and Dudley, 1991; Axelrod and Newton, 1991) have measured self-reported and/or actual behavior as the outcome variable of Protection Motivation. Justification of measuring behavior as PMT's outcome variable appears to have developed from Ajzen and Fishbein's (1980) Theory of Reasoned Action (e.g. Wurtele and Maddux, 1987). A main concept of Ajzen and Fishbein's model is that intentions predict behavior, of which there is supporting empirical evidence.

PMT and Health Enhancement

At times we engage in preventive health behaviors not because of fear, but due to anticipation of positive consequences. For example, many people report thattheir participation in regimens of aerobic exercise is motivated most by the concomitant increases in self-esteem and conditioning. Stanley and Maddux have noted the emphasis in theories of health decision-making on disease prevention rather than health enhancement. Indeed, most attempts to change health attitudes are premised on negative appeals rather than on messages emphasizing the beneficial consequences of accepting the adaptive recommendation.

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Robertson and Rogers used the PMT framework to investigate the effects of three message valences (positive versus negative versus a combination of the two) and two appeal targets (health versus self-esteem) on intentions of a regular exercise program. Although no main effect for valence or appeal target was found, significant interaction was discovered. Negative appeals were more effective than positive appeals, compared with a control group, when the message targeted health. As noted by the authors "Apparently the allure of obtaining the benefits of health enhancement does not have the persuasive appeal for avoiding the negative consequences". When the appeal was directed toward self-esteem, positive appeals were more effective than negative ness in strengthening intentions to exercise.

Results of their investigation led Robertson and Rogers to advocate attention to three issues in constructing preventive health messages. First, when the emphasis is placed on health enhancement, positive appeals can be used. In contrast, a disease prevention emphasis should be accompanied by negative appeals. Third, because people are motivated to protect themselves from danger, whether the danger is physical, psychological or social, people may be persuaded to adopt healthy lifestyles for reasons other than health (e.g. self-esteem).

The aforementioned study indicates that values such as self-esteem can be instrumental in persuading people to pursue good health. PMT provides a convenient framework for understanding both illness avoidance and health enhancement. Indeed the results corroborate Beck's assertion that PMT has "utility for explaining protective decisions in areas other than just personal health issues".

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In conclusion, preventive health psychology is based on two crucial assumptions: (i) behaviors increase the risk of certain chronic diseases: and (ii) changes in behaviors can reduce the probability of risk of certain diseases. Kaplan cogently reminds us that such premises do not always hold. While keeping such caution in mind, health researchers and educators have persistently sought models of self-protective behavior that may be applied to the vast numbers of human lives in which the above assumptions are true. PMT offers a very promising vehicle for that application.

2.3 Knowledge about amphetamines.

2.3.1 History of Amphetamines

The Chinese first described the properties of the stimulant ephedrine over 5000 years ago. Amphetamine, a synthetic analog of ephedrine, was introduced in 1932 as an appetite suppressant, and reports of its abuse appeared shortly thereafter. In the United States, widespread abuse occurred in the 1960s and early 1970s. Although some physicians in the 1970s actually prescribed amphetamines to increase alertness and productivity, their abuse potential has subsequently limited therapeutic use to the treatment of attention deficit-hyperactivity disorder (ADHD) and narcolepsy.

2.3.2 Epidemiology of Amphetamines

Amphetamine users are likely to be male, and most either ingest pills, inject the drug intravenously, or inhale metamphetamine. "Yaba" is a pill form of metamphetamine, and has become a popular inhale smoke able pill, especially in Thailand.

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Categories of people who abuse amphetamines by oral administration include the following:

- Women initially prescribed amphetamines for weight reduction; Professionals, business executives, and other "high-achievers" who use amphetamines for their anti-fatigue, activity-sustaining effect, as well as for weight reduction;
- Students who initially used amphetamines to enhance school performance;
- Truck drivers who use the drugs to stay alert during long distance trips.

Those who inject amphetamines intravenously or smoke "Yaba" include:

- Substance-abusing individuals who switched to amphetamines from other intravenous drugs;
- Polysubstance-abusing individuals; Those who previously used oral amphetamines;
- Experimenting adolescents and young adults.

2.3.3 Pharmacology of Amphetamines

Amphetamine, a racemic phenylisopropylamine, is a synthetic congener of ephedrine. Methamphetamine, a chemically-related compound, is synthesized either by the reduction of ephedrine or by the condensation of phenylacetone and methylamine.

Amphetamines are completely absorbed from the gastrointestinal (GI) tract and distributed throughout the body and the brain. Intravenous administration allows

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amphetamines to reach the brain within seconds; inhaled vapors first condense in the lungs and are then rapidly absorbed into the bloodstream.

The liver metabolizes amphetamines to active ephedrine derivatives and inactive forms. The actions of both amphetamine and methamphetamine are the same and the half-lives of amphetamine and methamphetamine are 8 and 12 hours, respectively. Repeated dosing of amphetamines over several days, called "speed runs," keeps the serum concentration of the drug and its active metabolites elevated and prolongs effects. The metabolites are ultimately excreted in the urine, and may be detected by toxicology screens.

Amphetamines, indirect monoamine agonists, produce actions both centrally and peripherally by causing norepinephrine, serotonin, and dopamine release from presynaptic terminals. These effects result from interactions of the drug with both the transporter involved in neurotransmitter re-uptake and the vesicular storage system, and from inhibition of the monoamine oxidase (MAO) system in the presynaptic nerve terminal.

Although amphetamines block the catecholamine re-uptake mechanism, the drug can be transported into the nerve terminal. Once inside the cells, they inhibit both the vesicular storage of dopamine and its breakdown by MAO. These two actions result in a buildup of catecholamines in the synaptic cleft and increased activation of the postsynaptic receptor. Long-term, repetitive use of amphetamines depletes the catecholamine supply. After the stores of catecholamines are depleted, the cell needs

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several days to synthesize more catecholamines. During this time, amphetamine users experience depressive symptoms.

2.3.4 Mechanism of Action

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Natural activities such as eating, drinking, and sex activate the nucleus cucumbers, inducing considerable communication among this structure's neurons. This internal communication leads to the release of dopamine. The released dopamine produces immediate, but ephemeral, feelings of pleasure and elation. As dopamine levels subside, so do the feelings of pleasure. But if the activity is repeated, then dopamine is again released, and more feelings of pleasure and euphoria are produced. The release of dopamine and the resulting pleasurable feelings positively reinforce such activities in both

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humans and animals and motivate the repetition of these activities.Dopamine is believed to play an important role in the reinforcement of and motivation for repetitive actions and there is an increasing amount of scientific evidence suggesting that the limbic reward system and levels of free dopamine provide the common link in the abuse and addiction of all substances. Dopamine has even been labeled "the master molecule of addiction".

2.3.5 Action of Amphetamine

Amphetamines are powerful central nervous system (CNS) stimulants with peripheral a- and (3-adrenergic actions similar to those of the indirectly-acting sympathomimetic drugs. In the CNS, amphetamines stimulate the cerebral cortex, striatum, limbic system, and brainstem. With 10-30-mg doses of dextroamphetamine (the more potent isomer), this stimulation results in increased alertness and wakefulness, decreased fatigue, elevation of mood with increased initiative and self-confidence, a heightened ability to concentrate, decreased appetite, and insomnia. Increased release of norepinephrine and dopamine caused by the drug appears to mediate these effects. Higher doses can cause convulsions, stereotypic movements, or a psychosis mediated by the release of dopamine and possibly serotonin in the limbic system and cortex. Depression and fatigue almost always follow these behavioral changes when the drug is removed.

Dependence often occurs with chronic use of amphetamine. Regular users usually develop tolerance to the euphoric and anorectic effects of amphetamine within a few weeks. Some dependent individuals take 1700 mg per day without apparent ill effects.

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For unclear reasons, not all individuals develop tolerance to amphetamines. Some narcoleptics have been treated for years without increases in their initial effective dose.

Peripherally, amphetamine actions are mediated by the release of norepinephrine. They increase the systolic and diastolic blood pressure significantly by stimulating a-receptors in the vasculature and (3-receptors in the heart. With the increased blood pressure, there is often a compensatory decrease in the heart rate. Cardiac arrhythmias can occur with large amphetamine doses. In contrast to caffeine, amphetamines have little effect on cerebral blood flow.

The most common CNS effects of amphetamines include restlessness, dizziness, tremor, irritability, insomnia, weakness, and hyperactive reflexes. Delirium, confusion, assaultiveness, panic states, and paranoia can occur even in individuals with no history of mental illness. There is a great amount of anecdotal evidence on the relationship of stimulant use and various sexual behaviors. Stimulants may be used during sexual activities to intensify sexual acts, heighten pleasure, lengthen the duration of intercourse, and lessen inhibitions. The abuse of stimulants is also know to lead to uncharacteristically aberrant or deviant sexual behaviors, the use of prostitute, and HIV high-risk behaviors.

Chronic use can produce a state called "amphetamine psychosis" that resembles acute mania. In this state, individuals experience vivid hallucinations and paranoid delusions, followed by fatigue and depression. Chronic use may also result in nausea, vomiting, diarrhea, or weight loss. If the patient injects the stimulants, the risk of necrotizing angiitis or an intracerebral hemorrhage increases.

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General effects of amphetamine use include headache, chills, pallor or flushing, excessive sweating and urticaria. Palpitations, cardiac arrhythmias, anginal pain, hypertension or hypotension, and eventual circulatory collapse comprise specific cardiovascular effects. The GI system effects include anorexia, nausea, vomiting, abdominal cramps, diarrhea, and a metallic taste in the mouth. In fatal doses, amphetamines cause convulsions and coma, usually due to cerebral hemorrhage.

Stimulants, including the amphetamines, are thought to suppress growth in children who receive them for long-term treatment of ADHD. Thus, periodic "drug holidays" are usually employed. Use of amphetamines is contraindicated in patients with known coronary artery disease, glaucoma, hyperthyroidism, and for patients concurrently being treated with MAO inhibitors.

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2.4 Related Research

2.4.1 Research related to Protection Motivation Theory for HIV-prevention.

Rutirawatana,S.(1993:120-128) studied the effectiveness of health education program applying Roger's Protection Motivation Theory on AIDS preventive behaviors among 118 Naval Supply Students in The Royal Thai Navy. The result showed that after the program experimental group changed in AIDS's severity, perceived probability, self-efficacy, response efficacy and intention to develop AIDS preventive behaviors, with statistic significantly more accurate and higher than that of comparison group. In AIDS preventive behaviors, it was found that among the experimental group change to be more statistically significant. In contrast, there was no statistically significant difference in AIDS preventive behaviors between experimental and comparison group.

Saritapirak, S (1994:117-137) studied the effectiveness of health education program on AIDS preventive among 108 grade 12 male students, with application of Protection Motivation and Social Support theories. The result showed that after the program experimental group gained a statistically higher level of knowledge about perception of severity, vulnerability, self-efficacy and response efficacy. However, the AIDS preventive practice of the students was not significantly changed.

Makmaitree, S (1995:111-117) studied an application of the Protection Motivation Theory for Developing AIDS preventive behaviors among113 Air Technical students. The result of this study revealed that after the program the experimental group gained significant higher perceived severity, self-efficacy expectancy, response efficacy and AIDS preventive behaviors than prior to experiment, and significantly. The experimental

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group did not gain significantly more perception of severity than prior to experiment and than the comparison group. It was also found that, alcohol drinking and income significantly influenced AIDS preventive behaviors.

Thitiworn, P (1996:90-101) studied an improvement of AIDS preventive behaviors among 45 pre-employment trainees the program that was designed based on Rogers's Protection Motivation Theory. The program activities comprised of 5 times group discussion plus practicing on proper use of condom. The result of this study showed that after the program the samples had the following aspects significant higher than before the program: AIDS severity, perceived probability, self – efficacy, response efficacy on AIDS preventive behaviors, and the intention to have proper AIDS preventive behaviors. It was also found that the perceived probability the self – efficacy and response efficacy were significant correlated to the intention.

Pacharoen, A (1996:98-101) studied an application of the Protection Motivation Theory's Rogers to AIDS preventive behaviors among 110 ninth grade male students. The result of this study revealed the health education program could enhance students gained significantly more knowledge, positive perceived probability, perceived expectation of self – efficacy, expectation of response efficacy and AIDS preventive behaviors than prior to the experiment.

Nilabuy, S (1999:126-138) studied among informal education students by achievement of intergraded teaching using the applied Protection Motivation Theory on AIDS prevention the sample group were 76 subjects. The health education activities included games, experience group discussion, role playing and demonstration. The result

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of this study showed that, the experimental group had significantly better perceived severity and susceptibility of AIDS, self-efficacy, response efficacy and intention to develop AIDS prevention behaviors than prior to the program. However, there was no significant difference in AIDS preventive behaviors.

2.4.2 Research related to HIV infection among amphetamines abusers.

Molitor F, et al (1998:93-97) studied association of methamphetamine (amphetamine derivative)use during sex with risk sexual behaviors and HIV infection among non-injection drug users found that among gay, bisexual, and heterosexual men and heterosexual women, users of methamphetamine reported more sexual partners than non- methamphetamine users. Among heterosexual, a greater percentage of methamphetamine users than nonusers participated in anal intercourse. Methamphetamine use was independently related to decreased condom use during vaginal and anal intercourse, prostitution, and sex with known injection drug users. In addition, methamphetamine users were more likely to have had a sexually transmitted disease. When controlling for race or ethnicity; age; exposure to possibly infected blood or blood products; and the use of cocain, alcohol, or marijuana during sex, methamphetamine-users bisexual men were more likely to test positive for HIV than those reporting no history of methamphetamine use.

Reviewing of relevant concepts, theories and research works demonstrated that, at present, amphetamine abusers were a risk group for HIV transmission from inappropriate AIDS preventive behaviors.

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The researcher, thus, is interested in organizing a health program for amphetamine abusers by applying the Protection-Motivation Theory's Rogers.

The variables used in this study are perceived severity, probability of HIV infection, self-efficacy, response efficacy, and AIDS prevention behaviors. All the above mentioned main and sub factors are to enable amphetamine abusers to have appropriate and correct preventive behaviors when being in a risk situation to HIV infection. The variable factors used in this research are shown in Figure 3.

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2.5 Conceptual Framework

The conceptual framework used in this study is based on the conceptual and theoretical perspectives and literature review as the framework in figure 3.

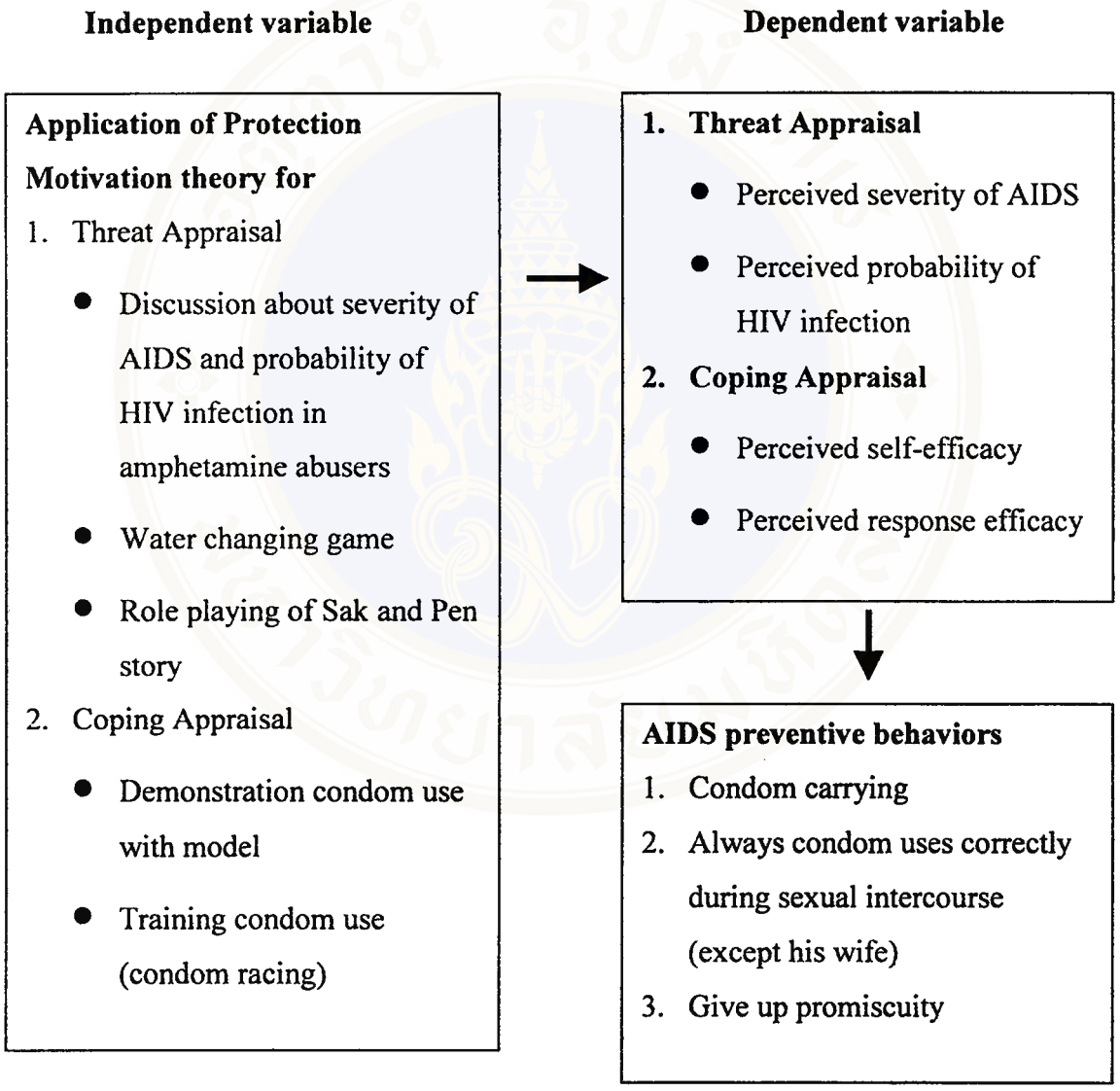

Figure 3: Conceptual Framework

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CHAPTER III

MATERIALS AND METHODS

The recent study, related concepts, theories, previous study and data from pilot study as describe in chapter II were applied to organize The Application of Protection Motivation Theory for AIDS preventive behavior modification among Amphetamine Abusers in Thanyarak Hospital, Pathumtani Province.The procedures were proceed as follow:

3.1 Research design

3.2 Population and the study sample

3.3 Research instruments

3.4 Procedures and Data collection

3.5 Data analysis

3.1 Research design

This study was a quasi-experimental design. The Amphetamine abusers were divided into two groups, the experimental and the comparison groups. The experimental group was the group with abusers participating in the health education programs to

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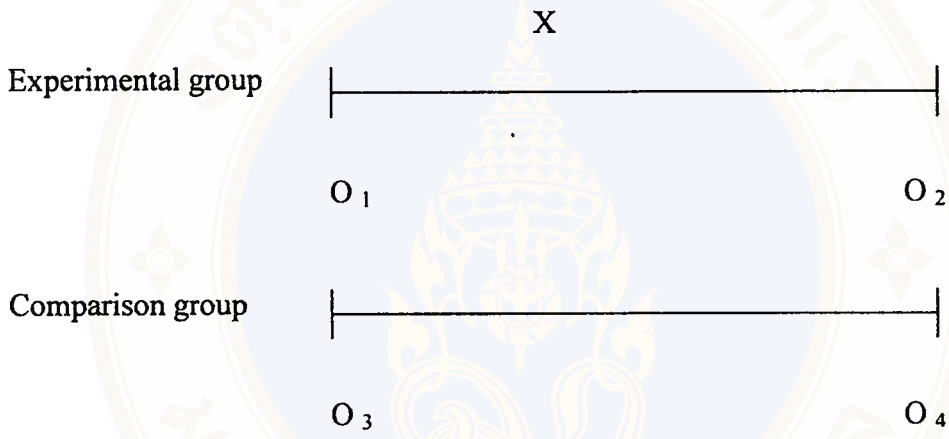
promote AIDS preventive behaviors. The comparison group was the group with abusers who did not attend the health education programs. Information and data were gathered from both groups before and after the program. The research design is shown below.

3.1.1 **Research design**



O_1 O_3 means data gathering before intervention (health education program)

O_2 O_4 means data gathering after intervention (health education program)

X means health education program

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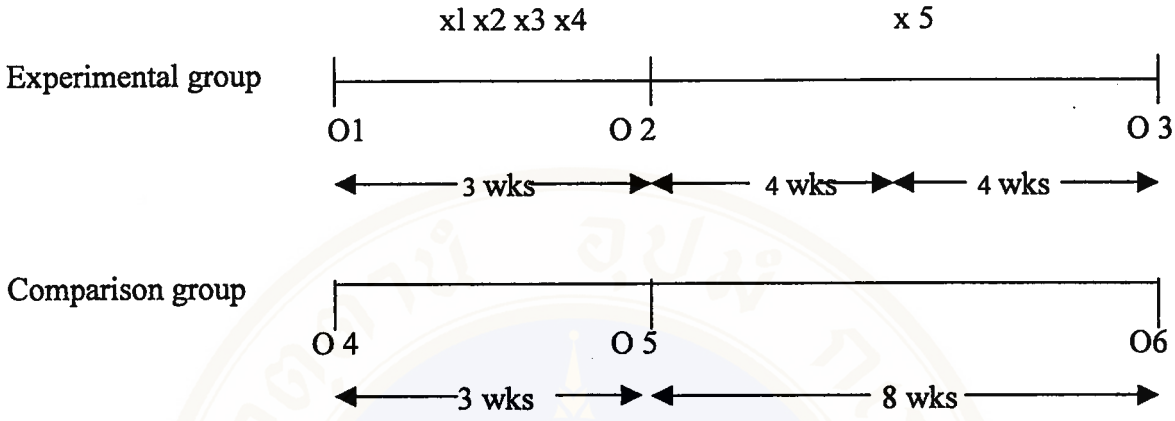
3.1.2 **Research plan**



O1 O4 means data gathering before intervention, one day before health education program, by mean the questionnaire and observation of condom practice with model. The questionnaire were include general characteristic of the sample group, threat appraisal, coping appraisal, and AIDS preventive behaviors. Using practice performed the condom practice observation form.

O2 O5means data gathering in both experimental and comparison group three weeks after intervention by mean of the questionnaire and condom using observation form. The questionnaires were included threat appraisal, coping appraisal, and AIDS preventive behaviors. The condom practice observation form was performing by using practice.

O3 O6means data gathering eight weeks after the end of the health education

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program) by mean of the questionnaire. The questionnaire was for data

on threat appraisal, coping appraisal and AIDS preventive behaviors.

X 1 means the first stage of the health education program. Discussion on perceived severity, and probability of HIV infection.

X 2 means the second health education program "Water exchange gamee

X 3 means the third health education program "Sak and Pen role playing e

X 4 means the fourth health education program "Demonstration of condom using with model and condom race gamee

X 5 means encouragement and supporting of information about AIDS preventive behaviors for the experimental group by the researchers.

3.2 Population and the study sample

3.2.1 Population

Populations used in the study were male Amphetamine abusers admitted in detoxification ward during August to September 2000 at Thanyarak Hospital, Pathumtani Province.

3.2.2 Study sample

The study samples, used for the analysis in this study, were 160 male amphetamine abusers and divided 80 subjects were in each experimental and comparison group. The following selective criteria were as followed:

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Experimental group

1 Smoking amphetamine abusers

2 Age of more than 19 years old

3 No psychological complication

4 No withdrawal sign and symptom such as somnolence, agitation and depression

5 Agree to participate the study

Comparison group

1 Smoking amphetamine abusers

2 Age of more than 19 years old

3 No psychological complication

4 No withdrawal sign and symptom such as somnolence, agitation and depression

5 Agree to participate the study

6 They were admitted after the study group health education program were completed

3.3 Research instruments

There were instruments used for data collection and in the experiment.

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3.3.1 Instruments used for data collection

3.3.1.1 Questionnaires

Data collection was done by mean of questionnaire and condom practice observation form. The questionnaire was used for data gathering before the program, after the program and during the follow up period, which obtained from the amphetamine abusers by themselves. The questionnaires were separated into 4 parts, as followed:

Part 1: general characteristics include age, education, history of amphetamine using, perceive AIDS information and sexual intercourse.

Part 2: Threat appraisal included perceive severity and probability. The rating scale were used for each question.

Perceived severity and perceived probability

choice	**score received positive questions**	**score received negative questions**
Absolutely agree	5	1
Agree	4	2
Uncertain	3	3
Disagree	2	4
Absolutely disagree	1	5

Each item had score range as show below.

Perceive severity had 10 questions and score range between 10 – 50 scores.

Perceive probability had 10 questions and score range between 10 – 50 scores.

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Part 3: Coping appraisal.

Perceive self – efficacy

choice	**score received positive questions**	**score received negative questions**
Always	5	1
Usually	4	2
Sometimes	3	3
Rarely	2	4
Never	1	5

Perceive response efficacy

choice	**score received positive questions**	**score received negative questions**
Absolutely agree	5	1
Agree	4	2
Uncertain	3	3
Disagree	2	4
Absolutely disagree	1	5

Each item had score range as show below.

Perceive self - efficacy had 10 questions and score range between 10 – 50 scores.

Perceive response efficacy had 10 questions and score range between 10 – 50 scores.

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Part 4: Evaluating AIDS preventive behaviors on sexual relation during smoking amphetamine (such as condoms carrying, promiscuous and condom use for safe sex).

Question 1 Amphetamine using characteristics

- Always smoked in group frequency (%)
- Uncertain frequency (%)
- Always smoked individual frequency (%)

Question 2 Amphetamine using with female friend

- Always smoked with female friend frequency (%)
- Uncertain frequency (%)
- Never smoked with female friend frequency (%)

Question 3 condoms carrying.

- Never frequency (%)
- Sometime frequency (%)
- Always frequency (%)

Question 4 a site of condom carrying

- Wallet frequency (%)
- Trousers bag frequency (%)
- Coat's bag frequency (%)
- Other specified frequency (%)
- More than 1 site frequency (%)

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Question 5 sexual relations with in 3 months.

- Yes
- No

Question 6 Sex partner.

- Female amphetamine co – abusers
- Girl friend
- Promiscuous woman
- Prostitute
- Wife
- Other(s) (specified)

All questions were designed on the basis of promiscuous sex and condom used for AIDS preventive.

3.3.1.2 Condom using observation form: which include 6 stages.

1. Package checking
2. Expire date checking
3. Package tearing
4. Pressing air in head of condom
5. Condom wearing
6. Condom taking off

If the subject did it correct he will receive 1 score in each stage. The score range between 0 – 6 scores.

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3.3.2 Instruments used in the experiment

3.3.2.1 Discussion on severity and probability of HIV for thinking and expression due to the question.

3.3.2.2 Water changing game was done for stimulating unsafe sex.

3.3.2.3 Sak and Pen story role playing. Sak was amphetamine abuser who had HIV infection from a female amphetamine co-abuser. Then Pen (his wife) and his son were infected later via their sex relation. The subjects perceive severity and probability of HIV by learning their experience.

3.3.2.4 Demonstration of condom using with model and condom used racing game for self – efficacy of condom used and AIDS preventive behaviors.

Building data and information gathering instruments

A. Questionnaire The questionnaire was built and developed following these steps:

First step: Studied theories, documents and relevant research, and studied problems, which were basic information of the sampling groups to build direct questionnaire for direct response to each variable needed to be tested.

Second step: Defined scopes and structures of contents.

Third step: Questions and answers 4 parts were included.

Part 1: general characteristics include age, education, and history of amphetamine using; perceive Aids information and sexual intercourse.

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Part 2: Threat appraisal includes perceived severity and probability. The research used rating scale for each question. The questions were positive statement and negative statement each respondent had to choose one of five rating scale for answer in each item.

Part 3: Coping appraisal include perceived self-efficacy and response efficacy the researcher used rating scale the same as part 2 but adjust the choices self – efficacy.

Part 4: Evaluating AIDS preventive behaviors on sexual relation during smoking amphetamine such as condoms carrying, promiscuous and condom use for safe sex.

B. Condom practice observation form: which include 6 stages.

Forth step: Validity reviewed by the thesis's advisor and experts in AIDS.

Fifth step: Pre-test 30 subjects were interviewed for evaluating the validity of the questionnaires.

Sixth step: Reliable precision analysis of the questionnaire was 0.8200. The detail of reliability were shown as below.

- perceived severity 0.6170
- perceived probability 0.7783
- expectation on self-efficacy 0.7832
- expectation on response efficacy 0.6660

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The part of the questionnaire on AIDS preventive behaviors was altered and further developed on its format and language used to achieve correct understanding, and used the most clear and precise of the language.

3.4 Procedure and data collection

3.4.1 Preparation stage

Requested formal letters from Mahidol University asking the Hospital Director for the permission cooperating in data gathering..

3.4.2 Implementation stage

The first day: Pre – testing period, the subjects were divided into 2 groups on

- comparison group which no health education
- experimental group health education was given

The second day: Start the first health education program "Discussion severity and probability of HIV infectionc by dividing the experimental group into 4 groups one question for each group as below.

Group 1: What are the consequents of HIV infection?

Group 2: How do AIDS affect the other members of in their family?

Group 3: If there are a lot of AIDS cases. What are the impacts on the country?

Group 4: What are the risks of HIV infection among amphetamine abusers?

(1hour)

Third day: The secondary health education program "Water exchanging gamec The experimental group learned how HIV infection transmitted from the using color changeable liquid. Distribute syringes and glass tube containing either water or

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phenopthalene to 10 amphetamine abusers, allowing them to exchange their liquid under the supervisor. Sodium hydroxide was then added into all glass tubes. The tubes that contaminated with phenopthalene turned pink. This might explained the model of tranmission of HIV infection by mean of their behaviors and lifestye.

(40 minutes)

Fourth day: The third health education program "Sak and Pen story role playingc Sak was amphetamine abuser who had HIV infection transmitted from a female amphetamine co-abuser. Pen (his wife) and his son were then infected via their sex relation. After role-playing, the researcher divided subject in to 3 groups for discussion.

Group 1: What is/are the consequence of problems of Sak and Pen story?

Who is/are wrong?

Group 2: What is the severity of AIDS?

Group 3: How can amphetamine abusers prevent HIV infection?

(50 minutes)

Fifth day: The fourth health education program "Demonstration condom of used with model and condom racingc The researcher demonstration of condom using with model and condom used racing game were conducted to observe their condom practice.

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3.4.3 Post – implementation stage

3.4.3.1 after 3 weeks of admission, the questionnaire were obtained from all subjects for perceive severity, probability, self- efficacy, response efficacy and condom practice.

3.4.3.2 Four weeks after discharge, all subjects were asked for the basic of AIDS prevention. The counseling were done for those who had the problem.

3.4.3.3 Eight weeks after discharge. The data was obtained by using questionnaires for perceive severity, probability, self- efficacy, response efficacy and AIDS preventive behaviors.

3.5 Data analysis

After data gathering, checking the completion and correction, the researcher had created handbook on coding of the questionnaire. Recorded and analysis by using SPSS/PC + Program (Statistical package for the social science programwhere the significant statistic validity (reliability) = 0.05. The statistic used in the analysis were as follow:

3.5.1 Descriptive statistic

The characteristic of subjects, history of amphetamine abused, sexual intercourse and AIDS information were analysis.

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3.5.2 Analytic statistic

3.5.2.1 The analysis was done to fine the differences by the comparison of the education and occupation between the experimental and the comparison group before program. The statistic methodology used was chi-square.

3.5.2.2 The analysis was done to find the differences by the comparison of the mean scores of threat appraisal and coping appraisal within the experimental and the comparison group before, after and follow up stage program. The statistic methodology used was Paired sample t-test.

3.5.2.3 The analysis was done to find out the differences by the comparison of the means scores of threat appraisal and coping appraisal between the experimental and the comparison groups before, after and follow up stage program. The statistic methodology used was Student's t-test.

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CHAPTER IV

RESULTS

This study is a quasi-experimental research. The subjects were male amphetamine abusers in detoxification ward of Thanyarak Hospital. They were divided into an experimental group and comparison group with 80 patients in each group. The study was conducted during August - September 2000. The researcher had gathered information and data by using the questionnaire and condom practice observation form before the program, after the program and the follow up period. Only 50 subjects in each group completed the studied 30 subjects in each group withdraw because of discharging before 3 weeks 11 in experimental group and 10 in comparison group, loss follow up 19 in experimental group and 20 in comparison group. The results of the analysis are presented in the details as follows:

4.1 Data on general characteristics of the subjects.

4.2 Results of the analysis of mean scores on perceived severity and probability.

4.3 Results of the analysis of mean scores on self-efficacy and response efficacy.

4.4 Results of the analysis of AIDS preventive behaviors.

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4.1 Data on general characteristics of the samples

4.1.1 Age and marital status

Table 1: Number and percentage of the samples categorized on age and marital status.

General characteristic of the sampling groups		Experimental group number	Experimental group percent	Comparison group number	Comparison group percent
Age	19 – 24 years old	40	80	36	72
	25 – 30 years old	9	18	12	24
	over 30 years old	1	2	2	4
Total		**50**	**100**	**50**	**100**
Mean		22.32		22.76	
Standard deviation		3.21		3.75	
Marital status					
Single		40	80	37	74
Marriages		8	16	10	20
Divorce		2	4	3	6
Total		**50**	**100**	**50**	**100**

NOTE: Comparison on average age between experimental and comparison group were base on student's t-test, p=0.37

Age: most of the amphetamine abusers were 19 – 24 years old (80 percent in experimental group and 72 percent in comparison group).

Marital status: Most of the amphetamine abusers in both groups were single (80 percent in experimental group and 74 percent in comparison group).

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4.1.2 Education and occupation

Table 2: Number and percentage of the samples categorized on education and occupation.

General characteristic of the sampling groups	Experimental group		Comparison group	
	number	ercent	number	percent
Education				
Primary school	14	28	13	26
Junior high school	17	34	15	30
Senior high school	7	14	8	16
Vocational education	11	22	14	28
Bachelor's degree	1	2	0	0
Total	**50**	**100**	**50**	**100**
Occupation				
No job	21	42	14	28
Employee	18	36	16	32
Student	6	12	14	28
Merchant	5	10	6	12
Total	**50**	**100**	**50**	**100**

NOTE: Comparison of difference on education and occupation between experimental and comparison group were base on chi-square p=0.91 and p=0.16 respectively.

Education: according to table 2 most of amphetamine abusers in both groups were junior high school (34 percent in experimental group and 30 percent in comparison group) and the next group in experimental group were primary school (28 percent) while in the comparison group were vocational education (28 percent).

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Occupation: most of amphetamine abusers experimental group were no job (42 percent) while in the comparison group were employee and the next group in experimental group were employee (36 percent) in comparison group were no job (28 percent).

4.1.3 Income

Table 3: Number and percentage of the samples categorized on income.

General characteristic of the sampling groups	Experimental group		Comparison group	
	number	percent	number	percent
Income				
Under – 2,000 Baths	28	56	18	36
2,001 – 6,000 Baths	15	30	25	50
6,001 – 10,000 Bahts	7	14	6	12
Over 10,000 Baths	0	0	1	2
Total	**50**	**100**	**50**	**100**
Mean	3,356		3,578	
Standard deviation	2,673.54		2873.69	

NOTE: Comparison on average income between experimental and comparison group were base on student's t-test, p=0.66

From the table above most of amphetamine abusers in experimental group had income under – 2,000 Baths (56 percent) and average income were 3356 Baths. While a comparison group usually had income between 2,001 – 6,000 baths (50 percent) and average income were 3578 Baths.

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4.1.4 Cause of amphetamine abuse and amount of amphetamine daily use

Table 4: Number and percentage of the samples categorized on cause of abuse and amount of daily usage.

General characteristic of the sampling groups	Experimental group		Comparison group	
	number	percent	number	percent
Cause of abuse				
Self - want	25	50	30	60
Introduce by friend	14	28	11	22
Increase working	7	14	6	12
Life problem	4	8	3	6
Total	**50**	**100**	**50**	**100**
Amount of Amphetamine daily usage (Tablet)				
1 – 3	33	66	28	56
4 – 6	14	28	11	22
7 – 9	1	2	6	12
10 – 12	0	0	3	6
13 - 15	1	2	1	2
Over15	1	2	1	2
Total	**50**	**100**	**50**	**100**

From the table 4 causes of amphetamine abuse in both groups were usually self – want (50 and 60 percent in experimental and comparison groups respectively). The second cause were introducing by friend, 28 and 22 percent respectively. The amount of amphetamine daily usage in experimental and comparison group were 1- 3 tablets for 66 and 56 percent respectively, the second were 4-6 tablets for 28 and 22 percent respectively.

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4.1.5 History of self abstinence, previous treatment, sexual relation and AIDS information receiving.

Table 5: Number and percentage of the samples categorized on history of self-abstinence, previous treatment, sexual intercourse, and AIDS information received.

History	Experimental group		Comparison group	
	number	percent	number	percent
Self-abstinence				
Ever	35	70	43	86
Never	15	30	7	14
Total	**50**	**100**	**50**	**100**
Previous of treatment				
Ever	17	34	16	32
Never	33	66	34	68
Total	**50**	**100**	**50**	**100**
Sexual intercourse				
Ever	43	86	41	82
Never	7	14	9	18
Total	**50**	**100**	**50**	**100**
AIDS information receiving				
Ever	46	92	48	96
Never	4	8	2	4
Total	**50**	**100**	**50**	**100**

From the table above most of experimental and comparison group had history of self-abstinence longer than 2 weeks with the percentage of 70 and 86 respectively. The history of no previous treatment of experimental and comparison group were 66 and 68

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percent respectively. The histories of sexual intercourse were 86 and 82 percent respectively. Both experimental and comparison groups had received information about AIDS with the percentage of 92 and 96 respectively.

4.2 Result of the analysis of scores for perceived severity and perceived probability.

4.2.1 Analysis of perceive severity and perceive probability of HIV between experimental and comparison group were done by student's t-test at 95 percent confidences.

4.2.1.1 The comparative analysis of the mean scores on perceived severity of AIDS between experimental and comparison groups was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

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Table 6: The comparative analysis of the mean scores on perceived severity of AIDS between experimental and comparison groups before the program, after the program and follow up stage.

Perceived severity	N	$\bar{X}$	S.D.	df	t-value	p-value
Between group						
Before the program						
Experimental group	50	36.80	4.50			
				98	1.28	0.202
Comparison group	50	38.02	4.97			
After the program						
Experimental group	50	44.02	4.07			
				98	7.14	< 0.001
Comparison group	50	37.70	4.73			
Follow up stage						
Experimental group	50	43.04	4.79			
				98	5.61	< 0.001
Comparison group	50	38.28	3.59			

Statistical analysis of the mean scores before the program indicated that there was no statistical difference between experimental and comparison group. While the results after the program and follow up period were significantly increased in the experimental group than that of the comparison group ($p<0.001$).

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4.2.1.1 The comparative analysis of the mean scores on perceived probability of HIV infection between experimental and comparison groups was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

Table 7: The comparative analysis of the mean scores on perceived probability of HIV infection between experimental and comparison groups before the program, after the program and follow up stage.

Perceived probability	N	$\bar{X}$	S.D.	df	t-value	p-value
Between group						
Before the program						
Experimental group	50	33.30	5.05			
				98	2.59	0.01
Comparison group	50	35.82	4.63			
After the program						
Experimental group	50	43.48	6.18			
				98	7.15	< 0.001
Comparison group	50	36.02	4.01			
Follow up stage						
Experimental group	50	43.02	5.15			
				98	6.86	< 0.001
Comparison group	50	36.44	4.39			

Statistical analysis of the different mean scores before the program indicated that means scores of comparison group was significant higher than experimental group (p=0.01). But the results after the program and follow up period showed a significantly

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higher mean scores of the experimental group than that of the comparison group ($p<0.001$).

4.2.2 Analysis of mean scores on perceived severity and probability of HIV within experimental and comparison group were done by Paired sample t-test at 95 percent confidences.

4.2.2.1 The comparative analysis of the mean scores on perceived severity of AIDS within experimental and comparison group was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

Table 8: The comparative analysis of the mean scores on perceived severity of AIDS within experimental and comparison group before the program, after the program and follow up stage.

Perceived severity	N	$\bar{X}$	S.D.	df	t-value	p-value
Within group						
Experimental group						
Before the program	50	36.80	4.50			
				49	8.17	< 0.001
After the program	50	44.02	4.07			
				49	-1.12	0.26
Follow up stage	50	43.04	4.79			
Comparison group						
Before the program	50	38.02	4.97			
				49	-1.88	0.06
After the program	50	37.70	4.73			
				49	1.29	0.20
Follow up stage	50	38.28	3.59			

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It was found that the post-test mean scores after the program and during follow up stage of the experimental group was significantly higher than that of the pre-test one ($p < 0.001$) as shown above. However, there was no statistical difference between the pre-test, post-test and follow up stage mean scores in the comparison group.

4.2.2.2 The comparative analysis of the mean scores on perceived probability of HIV within experimental and comparison group was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

Table 9: The comparative analysis of the mean scores on perceived probability of HIV infection within experimental and comparison group before the program, after the program and follow up stage.

Perceived probability	N	$\bar{X}$	S.D.	df	t-value	p-value
Within group						
Experimental group						
Before the program	50	33.30	5.05			
				49	8.12	< 0.001
After the program	50	43.48	6.18			
				49	-0.44	0.65
Follow up stage	50	43.02	5.15			
Comparison group						
Before the program	50	35.82	4.63			
				49	0.84	0.4
After the program	50	36.02	4.01			
				49	1.89	0.06
Follow up stage	50	36.44	4.39			

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It was found that the post-test mean scores after the program and during follow up stage of the experimental group was significantly higher than that of the pre-test one ($p < 0.001$) as shown above. However, there was no statistical difference between the pre-test, post-test and follow up stage mean scores in the comparison group.

4.3 Result of the analysis of scores for self-efficacy and response efficacy.

4.3.1 Analysis of self-efficacy and response efficacy of AIDS between experimental and comparison group were done by Student's t-test at 95 percent confidence.

4.3.1.1 The comparative analysis of the mean scores on perceived self-efficacy between experimental and comparison groups was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

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Table 10: The comparative analysis of the mean scores on perceived self-efficacy between experimental and comparison groups before the program, after the program and follow up stage.

Perceive self-efficacy	N	$\bar{X}$	S.D.	df	t-value	p-value
Between group						
Before the program						
Experimental group	50	36.84	6.37			
				98	0.97	0.33
Comparison group	50	38.14	6.92			
After the program						
Experimental group	50	44.80	4.37			
				98	5.52	< 0.001
Comparison group	50	38.48	6.80			
Follow up stage						
Experimental group	50	45.34	3.68			
				98	7.34	< 0.001
Comparison group	50	38.46	5.50			

Statistical analysis of the mean scores before the program indicated that there was no statistical difference between the experimental and the comparison groups. While the results after the program and follow up stage were significantly increased in the experimental group than that of the comparison group ($p<0.001$).

4.3.1.2 The comparative analysis of the mean scores on perceived response efficacy between experimental and comparison groups was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

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Table 11: The comparative analysis of the mean scores on perceived response efficacy between experimental and comparison groups before the program, after the program and follow up stage.

Perceived response efficacy	N	$\bar{X}$	S.D.	df	t-value	p-value
Between group						
Before the program						
Experimental group	50	38.14	4.44			
				98	0.90	0.36
Comparison group	50	37.34	4.36			
After the program						
Experimental group	50	41.48	5.19			
				98	4.59	< 0.001
Comparison group	50	37.08	4.33			
Follow up stage						
Experimental group	50	43.76	5.14			
				98	6.46	< 0.001
Comparison group	50	37.74	4.10			

Before the program, it was found that the mean scores of the two groups had no statistical difference; whereas after the program and follow up stage the mean scores of the experimental group was significantly higher than that of the comparison group ($p < 0.001$).

4.3.2 Analysis of self-efficacy and response efficacy of AIDS within group of experimental and comparison group were done by Paired sample t-test at 95 percent confidence.

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4.3.2.1 The comparative analysis of the mean scores on perceived self-efficacy within group of experimental and comparison groups was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

Table 12: The comparative analysis of the mean scores on perceived self-efficacy within experimental and comparison groups before the program, after the program and follow up stage.

Perceived self-efficacy	N	$\bar{X}$	S.D.	df	t-value	p-value
Within group						
Experimental group						
Before the program	50	36.84	6.37			
				49	6.83	< 0.001
After the program	50	44.80	4.37			
				49	0.61	0.53
Follow up stage	50	45.34	3.68			
Comparison group						
Before the program	50	38.14	6.92			
				49	1.21	0.22
After the program	50	38.48	6.80			
				49	0.03	0.97
Follow up stage	50	38.46	5.50			

It was found that the post-test mean scores after the program and during follow up stage of the experimental group was significantly higher than that of the pre-test one ($p < 0.001$) as shown above. However, there was no statistical difference between the pre-test, post-test and follow up stage mean scores in the comparison group.

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4.3.2.2 The comparative analysis of the mean scores on perceived response efficacy within group of experimental and comparison groups was performed by considering 10 questions with the full scores of 50. The result was shown in the table below.

Table 13: The comparative analysis of the mean scores on perceived response efficacy within group experimental and comparison groups before the program, after the program and follow up stage.

Response efficacy	N	$\bar{X}$	S.D.	df	t-value	p-value
Within group						
Experimental group						
Before the program	50	38.14	4.44			
				49	3.63	0.001
After the program	50	41.48	5.19			
				49	2.32	0.025
Follow up stage	50	43.76	5.14			
Comparison group						
Before the program	50	37.34	4.36			
				49	1.07	0.288
After the program	50	37.08	4.33			
				49	2.08	0.043
Follow up stage	50	37.74	4.10			

It was found that the post-test mean scores after the program and during follow up stage of the experimental group was significantly higher than that of the pre-test one ($p < 0.001$) as shown above. In the comparison group, there was no statistical difference between before and after program but it was found that mean scores in follow up stage

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was significantly higher than that of the mean scores after the program (p=0.043). This difference might be from the result of the usual treatment program of Thanyarak hospital that improved perceiving and after discharge from hospital they may be received response efficacy from another public media.

4.4 Result of the analysis of preventive behaviors.

4.4.1 Analysis of amphetamine abuse behavior 3 months before the program.

Table 14: Number and percentage of the samples categorized on Amphetamine abuse 3 months before the program.

Amphetamine abuse	Experimental group		Comparison group	
	number	percent	number	percent
Smoking characteristic				
Smoked alone	6	12	2	4
Smoked alone or with friends	40	80	43	86
Smoked with friends	4	8	5	10
Total	**50**	**100**	**50**	**100**
Female co-smoked				
Girl friends every time	5	10	2	4
Girl friends sometime	23	46	22	44
No girl friends	22	44	26	52
Total	**50**	**100**	**50**	**100**

From the table above, it was found that most of experimental and comparison group uncertainly smoked alone or with friends with the percentage 80 and 86 respectively. In their smoking, they smoked with girl friend sometime (46 and 44 percent in experimental and comparison group respectively).

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4.4.2 Analysis of condom carry behavior 3 months before the program.

Table 15: Number and percentage of the samples categorized on condom carry and condom carrying site in three months past before intervention.

Condom carrying and site	Experimental group		Comparison group	
	number	percent	number	percent
History of condom carrying				
Never	29	58	29	58
Sometime	17	34	16	32
Always	4	8	5	10
Total	50	100	50	100
Condom carry site				
Wallet	5	23.80	6	28.57
Trousers' bag	9	42.86	10	47.63
Shirt's bag	4	19.06	2	9.52
Under motorcycle seat	2	9.52	2	9.52
Tail light of motorcycle	1	4.76	1	4.76
Total	**21**	**100**	**21**	**100**

From table above, the majority of both experimental and comparison groups were never carry condom (58 percent equally). While the majority of condom carrying site were trousers bag (42.86 and 47.63 percent in experimental and comparison group respectively).

4.4.3 Analysis of sexual intercourse history 3 months before the program

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Table 16: Number and percentage of the samples categorized on sexual intercourse 3 months before the program.

Sexual intercourse	Experimental group		Comparison group	
	number	percent	number	percent
History of sexual intercourse				
Yes	42	84	40	80
No	8	16	10	20
Total	**50**	**100**	**50**	**100**
Sexual partners				
Female co-abusers	5	11.90	7	17.50
Girl friend	9	21.42	8	20
Promiscuous women	2	4.76	7	17.50
Prostitute	5	11.90	2	5
Wife	8	19.04	4	10
More than one persons	13	30.95	12	30
Total	**42**	**100**	**40**	**100**
Condom using (except his wife)				
Yes	12	35.29	11	30.55
No	22	64.71	25	69.45
Total	**34**	**100**	**36**	**100**

From the table above it was found that most of experimental and comparison group were had sexual intercourse 3 months before the program for 84 and 80 percent respectively. In experimental group, the person that they had sexual intercourse with were more than 1 persons, girl friend and his wife for 30.95, 21.42, and 19.04 percent respectively. While in comparison group, the person that they had sexual intercourse with were more than 1 person, promiscuous women and female co-abusers for 30 and 17.50

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percent respectively. History of condom using with sexual partners (except his wife) were 35.29 and 30.55 percent in experimental and comparison group respectively.

4.4.3 Analysis of sexual intercourse 3 months before the program and 2 months after the program in experimental group.

Table 17: Number and percentage of the experimental group on sexual intercourse 3 months before the program and 2 months after the program in experimental group.

Sexual intercourse	Pre - test		Post - test	
	number	percent	number	percent
History of sexual intercourse				
Yes	42	84	29	58
No	8	16	21	42
Total	**50**	**100**	**50**	**100**
Sexual partners				
Female co-abusers	5	11.90	0	0
Girl friend	9	21.42	16	55.17
Promiscuous	2	4.76	1	3.45
Prostitute	5	11.90	2	6.90
Wife	8	19.04	8	27.58
More than one	13	30.95	2	6.90
Total	**42**	**100**	**29**	**100**
Condom using (except his wife)				
Yes	12	35.29	19	90.47
No	22	64.71	10	9.53
Total	**34**	**100**	**29**	**100**

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From the table 17, it was found that experimental group had history of sexual intercourse 3 months before the program for 84 percent. The majority of sexual partners before the program were more than 1 partner for 30.95 percent. History of condom using with sexual partners (except his wife) was found in 35.29 percent in experimental group. After the program, experimental group had sexual intercourse for 58 percent and the sexual partners were girl friend 55.17 percent and condom used with sexual partner (except his wife) higher than before the program for 65.52 percent.

Table 18: Number and percentage of the comparison group on sexual intercourse 3 months before the program and 2 months after the program.

Sexual intercourse	Pre - test		Post - test	
	number	percent	umber	percent
History of sexual intercourse				
Yes	40	80	36	72
No	10	20	14	28
Total	**50**	**100**	**50**	**100**
Sexual partners				
Female co-abusers	7	17.50	0	0
Girl friend	8	20	10	27.78
Promiscuous	7	17.50	7	19.45
Prostitute	2	5	2	5.55
Wife	4	10	5	13.88
More than one	12	30	12	33.34
Total	**40**	**100**	**36**	**100**
Condom using (except his wife)				
Yes	11	30.55	11	35.48
No	25	69.45	20	64.52
Total	**36**	**100**	**31**	**100**

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From the table 18 before the program comparison group had sexual intercourse 80 percent, sexual partners more than one 30 percent and condom using with sexual partner (except his wife) was 30.55 percent. After the program had sexual intercourse 72 percent, sexual partners more than one 33.34 percent and condom using (except his wife) for 35.48 percent.

4.4.5 Analysis of sexual intercourse 2 months after the program

Table 19: Number and percentage of the samples categorized on sexual intercourse 2 months after the program.

Sexual intercourse	Experimental group		Comparison group	
	number	percent	number	percent
Sexual intercourse				
Yes	29	58	36	72
No	21	42	14	28
Total	**50**	**100**	**50**	**100**
Sexual partners				
Female co-abusers	0	0	0	0
Girl friend	16	55.17	10	27.78
Promiscuous	1	3.45	7	19.45
Prostitute	2	6.90	2	5.55
Wife	8	27.57	5	13.88
More than one	2	6.90	12	33.34
Total	**29**	**100**	**36**	**100**
Condom use with partners (except his wife)				
Yes	19	90.47	11	35.48
No	2	9.53	20	64.52
Total	**20**	**100**	**31**	**100**

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From the table 19 it was found that experimental group had sexual intercourse for 58 percent, while comparison group 72 percent 2 months after the program. The sexual partners in experimental group were girl friends 55.17 percent, while comparison group was more than one 33.34 percent. The condom using (except his wife) were 90.47 and 35.48 percent in comparison group respectively.

4.4.6 Analysis of condom carry behaviors

Table 20:Number and percentage of the samples categorized on condom carry 2 months after the program.

Condom carrying and site	Experimental group umber	percent	Comparison group number	percent
History of condom carrying				
Never	12	24	30	60
Sometime	26	52	15	30
Always	12	24	5	10
Total	**50**	**100**	**50**	**100**
Condom carrying site				
Small box	18	47.36	0	0
Wallet	7	18.42	7	35
Trousers' bag	10	26.32	10	50
Shirt's bag	3	7.89	1	5
Under motorcycle seat	0	0	1	5
Tail light of motorcycle	0	0	1	5
Total	**38**	**100**	**20**	**100**

From table above it was found that 2 months after the program experimental group sometime carried condom for 52 percent. While comparison group still not carried

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condom for 60 percent, condom-carrying site of experimental group was in small box for 47.36 percent, while comparison group carried condom in trousers' bag for 50 percent.

4.4.6.1 The analysis of mean scores on condom used with model between experimental and comparison group was performed by considering 6 stages with full scores of 6. The result was shown in the table below.

The analysis of mean scores on condom used with model between experimental and comparison group were done by Student's t-test at 95 percent confidence.

Table 21: The analysis mean scores on condom used with model between experimental and comparison groups before and after program.

Condom use with model	N	$\bar{X}$	S.D.	df	t-value	p-value
Between group						
Before program						
Experimental group	50	1.32	0.55			
				98	0.64	0.52
Comparison group	50	1.42	0.62			
After the program						
Experimental group	50	5.03	1.02			
				98	16.99	< 0.001
Comparison group	50	1.60	0.64			

From the table above it was found that no significant difference of mean scores on condom using with model between experimental and comparison groups before the

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program, but after the program experimental group had significantly ($p<0.001$) higher scores than comparison group.

4.4.6.2 The analysis of mean scores on condom used with model within experimental and comparison groups was performed by considering 6 stages with full scores of 6. The result was shown in the table 22.

The analysis of mean scores on condom used with model within group were done by Paired Sample t-test at 95 percent confidence.

Table 22: The analysis mean scores on condom used with model within group after program.

Condom used with model	N	$\bar{X}$	S.D.	df	t-value	p-value
Within group						
Experimental group						
Before program	50	1.32	0.55			
				49	17.65	< 0.001
After program	50	5.03	1.02			
Comparison group						
Before program	50	1.42	0.62			
				49	3.28	0.002
After program	50	1.60	0.64			

From the table above, it was found that experimental group had significantly ($p<0.001$) higher scores on condom using with model after the program than before the program, while comparison group also had higher scores after the program than before the program too. These were from learning experienced within comparison group.

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CHAPTER V

DISCUSSION

The purpose of this research was to study the effectiveness of an application of Protection Motivation Theory to AIDS preventive behaviors modification among amphetamine abusers at Thanyarak hospital which included discussion about severity of AIDS and probability of HIV infection in amphetamine abusers, role playing, water exchanging game, and condom use demonstration with model. After the program, changes in experimental group was evaluated by treat appraisal which include perceive severity of AIDS and perceive probability of HIV infection, coping appraisal which include self-efficacy, response efficacy and AIDS preventive behaviors. The following data analysis and hypotheses were discussed.

5.1 Hypothesis 1

A health education program can positively change the behaviors of amphetamine abusers participating in the program as compared to before the program. It positively affects treat appraisal, which include perceived severity of AIDS and perceived probability to HIV infection.

The result of comparative study scores before and after the program within the experimental and comparison group found that experimental group had significantly positive changed in treat appraisal which include perceived severity of AIDS and

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perceived probability of HIV infection after the program compared to before the program which were in accordance with 1st hypothesis. This change cause by an implementation of health education program which include discussion about severity of AIDS and probability of HIV infection in amphetamine abusers, water exchange game and role playing on story of Sak and pen in experimental group. Discussion about severity of AIDS and probability of HIV infection in amphetamine abused let the experimental group shared their opinion about severity of AIDS and probability of HIV infection in amphetamine abused within group and the researcher gave additional summary in severity of AIDS and probability of HIV infection in amphetamine abuses. Role-playing on story of Sak and Pen could raise awareness of severity of AIDS when Sak was infected with HIV and awareness of probability of HIV infection in amphetamine abusers. All health education program as mention above can caused positive change in preventive behaviors about treat appraisal which include perceived severity of AIDS and perceived probability to HIV infection for amphetamine abuses. This result was in line with the study of Saritapirak, S(1993:117-137) studied among Grade 12 Male Students, Rutirawatana, S (1993:120-128) studied among Naval Supply Students, Pacharoen, A(1996:98-101) studied among Ninth Grade Male Students and Nirabut,S(1999:127-128)studied among information education students by application Protection Motivation Theory for behavior changed in treat appraisal. After the program, experimental group had significantly positive change in treat appraisal, which include severity of AIDS and probability of HIV infection as compare to before the program and comparison group. But the result was not in line with a studied of Makmaitree, S (1995:111-117) among Air technical Training

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Students and Thitiworn, P(1996:92) studied among Pre-Employment Trainees which found the experimental group had significantly higher scores on perceive probability after the program than before the program, but it was not significantly higher than before the program in perceive severity.

5.2 Hypothesis 2

The health education program can cause change in behaviors of the experimental group in a positive ways more than the comparison group on coping appraisal which include self-efficacy and response efficacy of AIDS prevention before the program

The result of comparison scores between before and after the program within the experimental and comparison group found that experimental group had significantly positive change in coping appraisal which include self-efficacy and response efficacy after the program compared to before the program and comparison group which followed 2nd hypothesis. This change cause by conducting condom used practice with model. Condom using began with the demonstration of condom use with model and suggestion about carrying condom for convenient using in unexpected sexual relation. Then the researcher let the subject practice with model and conducts condom race game which cause more interest in practice with the model. After practice with model and playing condom using game the experimental group had self-efficacy to prevent HIV infection .The experimental group also participate in discussion group about severity and probability of HIV, water changing game and role playing of Sak and Pen story that caused perceiving severity and probability of HIV in amphetamine abusers. This was the reasons of positive changed in experimental group about response efficacy such as

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avoiding sexual relation with promiscuous woman or prostitute to decrease HIV infection risk, always using condom with sexual partners (except his wife) to prevent HIV infection and using condom correctly to prevent HIV infection.

This was in line with the studied of Rutirawatana, S (1993:134-144) studied in The Royal Thai Navy, Makmaitree, S(1995:111-117)studied among Air Technical Training Students, Thitiworn, P(1996:93) studied among Pre-Employment Trainees, Pacharoen, A (1996:98-101) studied among Ninth Grade Male Students by application Protection Motivation Theory for behavior changed in coping appraisal. After the program it was found that experimental group had significant higher mean scores of self-efficacy and response efficacy as compare to before the program and comparison group. But this was not in line with the studied of Saritapirak, S (1993:117-137) studied among Grade 12 Male Students which reported that after the program experimental group had significantly positive change in mean scores of self-efficacy while response efficacy had no significant positive change.

5.3 Hypothesis 3

The health education program can cause change in behavior of the amphetamine abusers in a positive way as compare to before the program.

In the experimental group, it was found that after the program mean scores of AIDS preventive behaviors which include condom carrying, promiscuous behaviors, condom using with sexual partners (except his wife) and mean scores of correctly condom using with model was increased significantly. This change was caused by perceive severity of AIDS, probability of HIV infection, self-efficacy and response efficacy from

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health education program that result in changing their AIDS preventive behaviors. This was in line with Protection Motivation Theory (Rogers, 1986: 153-161). The theory mentioned that interaction in combination of danger appraisal and problem-facing appraisal would create another variation that was the intention to practice preventive behaviors. The intention to practice behaviors was an indicator to measure the motivation to practice such behaviors. This was also in line with the studied of Pacharoen, A (1996:99) studied among Ninth Grade Male Students and Thitiworn, P (1996:93) studied among Pre-Employment Trainees by application Protection Motivation Theory for behavior changed in AIDS preventive behaviors. Those studies reported that after the program experimental group was increased AIDS preventive behaviors more than before the program and comparison group. But this was not in line with the studied of Rutirawatana, S (1993:134-144) studied among Navy Supply Students, and Nilabut, S (1999:135) studied among Informal Education Students, which reported that preventive behaviors in both experimental and comparison group were not significantly increased.

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CHAPTER VI

CONCLUSION

The purpose of this research was to study the effectiveness of the application of Protection Motivation Theory to AIDS preventive behavior modification among amphetamine abusers at Thanyarak Hospital in Pathumtani province. The samples were amphetamine abusers who admitted in detoxification ward during August to September 2000. The total 160 subjects were divided equally to 80 subjects experimental and comparison group. Before the program, the researcher conducted data gathering by questionnaire about general characteristic, perceive severity, perceive probability, self-efficacy, response efficacy and AIDS preventive behaviors. In addition to questionnaire, the researcher also used condom using observational from for data gathering. The health education program was conduct in afternoon 4 days consecutively.

The health education program were group discussion about severity of AIDS and probability of AIDS infection in amphetamine abusers, role playing for learning about probability of AIDS infection in amphetamine abusers and condom using demonstration for self-efficacy and response efficacy to prevent AIDS infection. When experimental group was admitted for 3 weeks, the 1st data gathering after the program was performed in aspects of perceive severity, perceive probability, self-efficacy, response efficacy, AIDS preventive behaviors and condom using scores with model. The 2nd data gathering was performed when experimental group was in follow up stage. Again the data gathering was about perceived severity, probability, self-efficacy, response efficacy and AIDS

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preventive behaviors. After the research was completed there were 50 subjects in both experimental and comparison group. After that, data gathering were analyzed to compare the difference in perceive severity, probability, self-efficacy, response efficacy, AIDS preventive behaviors, and condom using scores with model for prevent AIDS infection by Student t-test and Paired sample t-test with 95 percent confidence. The results were concluded as below.

1. Treat appraisal: which include perceived severity and perceive probability of AIDS, the experimental group had mean scores of perceive severity and perceived probability of AIDS infection after the program and during follow up stage significant higher than before the program and higher than comparison group. This was conformed to hypothesis 1.

2. Coping appraisal: which include perceive self-efficacy and response efficacy in the experimental group, had mean scores of perceive self-efficacy and response efficacy after the program and during follow up stage were significant higher than before the program and higher than comparison group. This conformed to hypothesis 2.

3. AIDS preventive behaviors: after the program, the experimental group had increasing rate on condom carrying rate and on condom using with sexual partners (except his wife) decreasing in promiscuous sexual intercourse, and increase in mean scores of condom using with model as to compared to before the program and comparison group, which conformed to hypothesis 3.

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Recommendation

1. Recommendation about theory

The application of Protection Motivation Theory can create positive change in preventive behaviors, which include treat appraisal, coping appraisal and AIDS preventive behaviors in amphetamine abusers. The amphetamine abusers, who had physical and psychological problems, can use Protection Motivation Theory to change AIDS preventive behaviors as in other subjects. This suggests that Protection Motivation Theory can be applied for AIDS preventive behaviors in many different target groups. In Protection Motivation Theory, which had many variables such as, perceive severity, perceive vulnerability, self-efficacy, response efficacy and preventive behaviors, and in addition some study of include intention which used many measurements. Many measurements will produce exhaustion of subjects and error in data gathering, so the researcher should prepare the subjects well in order to understand and co-operating in data gathering for solving this problem.

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2. Recommendation for hospital

The hospital in this research was drug addiction treatment center, which had many treatment models about drug addiction treatment but not concern in health education program to promote AIDS preventive behaviors in amphetamine abusers. Amphetamine abusers had high risk of AIDS infection too because amphetamine can stimulate sexual desire, among teenage groups who want to have sexual experiences and were in the period of hormonal change. The health education program should be organized to promote AIDS preventive behaviors for amphetamine abusers in this hospital.

3. Recommendation for the further researches

3.1 The male amphetamine abusers were high risk group for AIDS so there should be studied in other groups such as female amphetamine abusers, amphetamine abusers in another setting and in other hospital to promote AIDS preventive behaviors. The natures of amphetamine abusers were short concentration, irritable, and low perception than normal adolescents. The health education program should be actively encouraging for amphetamine abusers to share opinion, games or other optimized activities, instead of lectures, which can be interest and boring.

3.2 The research in amphetamine abusers should beware of loss during follow-up of subjects because amphetamine abusers are usually discharged before schedule and lost in follow up stage (in this study the co-operate lost 37.5 percent). There should be many ways to encourage the subjects to co-operation in the program such as having good

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relation with researcher during admission, telephone calls and mailing if there was no telephone.

3.3 Further researches should study about AIDS preventive behaviors in amphetamine abusers who have relapse. If the relapse cases have no AIDS preventive behaviors after amphetamine smoking, there should be another effective program for promoting AIDS preventive behaviors.

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APPENDIX

INTERVIEW SCHEDULE

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เลขที่แบบสอบถาม.....

แบบสอบถามครั้งที่.....

คำชี้แจงในการตอบแบบสอบถาม

แบบสอบถามนี้เป็นแบบสอบถามในการศึกษาวิจัย

เรื่อง

การประยุกต์ทฤษฎีแรงจูงใจเพื่อป้องกันโรคเอดส์ ในกลุ่มผู้เสพแอมเฟตามีน

โรงพยาบาลธัญญารักษ์ จังหวัดปทุมธานี

1. แบบสอบถามมีทั้งหมด 8 หน้า แบ่งออกเป็น 4 ส่วน

ส่วนที่ 1	ข้อมูลคุณลักษณะของผู้ตอบแบบสอบถาม	10 ข้อ
ส่วนที่ 2	การประเมินอันตราย	20 ข้อ
ส่วนที่ 3	การประเมินการเผชิญปัญหา	20 ข้อ
ส่วนที่ 4	พฤติกรรมการป้องกันโรคเอดส์	6 ข้อ

2. วัตถุประสงค์ในการศึกษาวิจัย เพื่อศึกษา การรับรู้ แนวคิด และการปฏิบัติของท่านในด้านการป้องกันโรคเอดส์ เพื่อใช้เป็นแนวทางในการค้นหา กลวิธีในการเผยแพร่ความรู้ เพื่อป้องกันและควบคุมโรคเอดส์ จึงใคร่ขอความร่วมมือจากท่าน ในการตอบแบบสอบถามชุดนี้ให้ตรงกับความเป็นจริง หรือตรงกับความคิดเห็นของท่าน โดยกรุณาตอบให้ครบทุกข้อ ทุกส่วน ซึ่งทุกคำตอบจะไม่มีผลเสียใดๆต่อท่าน โดยผู้วิจัยจะเก็บรวบรวมข้อมูลไว้เป็นความลับ

ขอขอบคุณที่ให้ความร่วมมือเป็นอย่างดี

วิมล ลักขณาภิชนชัช

ผู้วิจัย

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เลขที่แบบสอบถาม.....
แบบสอบถามครั้งที่.....

<u>ส่วนที่ 1</u> ข้อมูลคุณลักษณะของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดทำเครื่องหมาย / ลงในช่อง ☐ หร/ ร/ รือเติ คำลงในช่องว่างตามความเป็นจริง

1. ปัจจุบันท่านอายุ .....ปี
2. สถานภาพสมรสปัจจุบัน
   - ☐ 1. โสด
   - ☐ 2. คู่ → ☐ อยู่ด้วยกัน / ☐ แยกกันอยู่
   - ☐ 3. หม้าย/หย่า ☐ อื่นๆระบุ.....
3. การศึกษาสูงสุดของท่าน
   - ☐ 1. ประถมศึกษา ☐ 2. มัธยมต้น ☐ 3. มัธยมปลาย ☐ 4. ปวช./ ปวส.
   - ☐ 5. ปริญญาตรี ☐ 6. อื่นๆระบุ.....
4. ก่อนเข้ามาบำบัดรักษาในโรงพยาบาลนี้ท่านประกอบอาชีพอะไร
   - ☐ 1. ว่างงาน ☐ 2. นักเรียน, นักศึกษา ☐ 3. ค้าขาย ☐ 4. รับจ้าง
   - ☐ 5. รับราชการ ☐ 6. อื่นๆระบุ.....
5. ปัจจุบันท่านมีรายได้.....บาท/เดือน โดยได้รับจาก.....
6. บุคคลในครอบครัวที่ท่านอาศัยอยู่ด้วย
   - ☐ บิดา ☐ มารดา ☐ ภรรยา ☐ บุตร .....คน
   - ☐ ญาติพี่น้องระบุ.....
7. สาเหตุการสูบยาบ้าของท่าน
   - ☐ 1. อยากลอง ☐ 2. เพื่อนชวน ☐ 3. เพื่อให้ทำงานได้มากขึ้น
   - ☐ 4. มีปัญหาชีวิตหรือครอบครัว ☐ อื่นๆระบุ.....
8. ก่อนมาโรงพยาบาลท่านสูบยาบ้าวันละ.....เม็ด
   - ☐ อื่นๆระบุ.....
9. ท่านเคยเลิกสูบยาบ้าด้วยตนเองหรือไม่
   - ☐ ไม่เคย ☐ เคย ได้นาน.....
10. ท่านเคยเข้ารับการบำบัดรักษามาก่อนหรือไม่
    - ☐ ไม่เคย ☐ เคย.....ครั้ง อยู่ครบกำหนด.....ครั้ง ไม่ครบกำหนด.....ครั้ง

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11. ในชีวิตที่ผ่านมาท่านเคยมีเพศสัมพันธ์หรือไม่ ☐ เคย ☐ ไม่เคย

12. ปัจจุบัน ท่านมีคู่นอนหรือไม่ จำนวนเท่าใด ☐ มี.....คน ☐ ไม่มี

13. ท่านเคยได้รับข้อมูลข่าวสารเกี่ยวกับโรคเอดส์หรือไม่

☐ เคย ☐ ไม่เคย

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ส่วนที่ 2 การประเมินอันตราย

คำชี้แจง กรุณาใส่เครื่องหมาย / ลงในช่องที่ตรงกับความคิดเห็นหรือความรู้สึกที่แท้จริงของท่าน

การรับรู้ความรุนแรงของโรคเอดส์

ข้อความ	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1. ปัจจุบันมีวัคซีนที่สามารถป้องกันโรคเอดส์ได้ผลแล้ว					
2. การรักษาโรคเอดส์ต้องสิ้นเปลืองค่าใช้จ่ายในการดูแลรักษาจำนวนมาก					
3. เมื่อเป็นโรคเอดส์แล้วสังคมจะรังเกียจเพราะเป็นโรคที่สำส่อนทางเพศ					
4. หากเป็นโรคเอดส์คนในครอบครัวจะต้องรับภาระดูแล					
5. เมื่อติดเชื้อเอดส์แล้ว การมีเพศสัมพันธ์กับผู้อื่นไม่ต้องระมัดระวังอีกต่อไป					
6. หากเป็นโรคเอดส์จะทำให้ร่างกายทรุดโทรมและเจ็บป่วยง่ายขึ้น					
7. การที่ร่างกายและจิตใจทรุดโทรมลงทำให้ทำงานได้น้อยลง เป็นผลให้รายได้น้อยลงด้วย					
8.หากเป็นโรคเอดส์จะทำให้ติดต่อไปยังภรรยาและบุตรได้โดยไม่รู้ตัว					
9. ปัจจุบันยาที่รักษาโรคเอดส์มีราคาแพงและยังไม่สามารถรักษาให้หายขาดได้					
10. หากเป็นโรคเอดส์ร่างกายจะซูบผอมมีผื่นแดงแกมม่วงตามลำตัว เป็นที่น่ารังเกียจแก่ผู้พบเห็น					

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การรับรู้โอกาสเสี่ยงของการเกิดโรคเอดส์

ข้อความ	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1. การเสพยาบ้าด้วยวิธีสูบไม่ใช่สาเหตุเสริมให้ติดโรคเอดส์					
2. การมีเพศสัมพันธ์กับเพื่อนที่รู้จักแล้วไม่น่าจะทำให้ติดเอดส์					
3.เพื่อนหญิงที่ร่วมวงสูบยาบ้า อายุน้อยๆน่าจะปลอดจากโรคเอดส์					
4. การสูบยาบ้าเป็นกลุ่มทั้งหญิงและชายทำให้จิตใจคึกคลื้น ร่าเริงสนิทสนมกันเร็วขึ้นอาจพาไปสู่การมีเพศสัมพันธ์และติดเอดส์ได้					
5. โรคเอดส์ซึ่งเป็นโรคร้ายแรงคงไม่เกิดขึ้นกับตัวเราจึงไม่ต้องระมัดระวัง					
6. การใช้ถุงยางอนามัยอาจเป็นการไม่ให้เกียรติกับคู่นอน					
7. ถุงยางอนามัยควรใช้กับโสเภณีเท่านั้น					
8. การดูเพียงรูปร่างหน้าตาท่าทางก็พอจะคาดเดาได้ว่ามีโรคเอดส์หรือไม่					
9. การไปเที่ยวโสเภณีสักครั้งหรือสองครั้งไม่น่าจะติดเอดส์					
10. การดูแลสุขภาพร่างกายให้แข็งแรงทำให้ไม่ติดเอดส์					

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<u>ส่วนที่ 3</u> การประเมินการเผชิญปัญหา

การรับรู้ในความสามารถของตนเอง

ข้อความ	ทุกครั้ง 100%	บ่อยครั้ง 75%	บางครั้ง 50%	ได้บ้าง 25%	ไม่ได้เลย 0%
1. ท่านสามารถหักห้ามใจตนเองไม่ให้มีเพศสัมพันธ์กับหญิงอื่นที่ไม่ใช่ภรรยาได้					
2.ท่านสามารถใช้ถุงยางอนามัยได้ทุกครั้ง เมื่อมีเพศสัมพันธ์กับหญิงโสเภณี					
3. หลังจากสูบยาบ้าหากท่านมีความต้องการทางเพศ ท่านสามารถใช้ถุงยางอนามัยกับหญิงโสเภณีได้ทุกครั้ง					
4. หลังจากสูบยาบ้าหากท่านมีความต้องการทางเพศ ท่านสามารถใช้ถุงยางอนามัยกับหญิงรักสนุกได้ทุกครั้ง					
5. ท่านสามารถจะซื้อหรือจัดเตรียมถุงยางอนามัยไว้ใช้ได้					
6. ท่านสามารถพกพาถุงยางอนามัยติดตัวไว้ใช้ได้ตลอด					
7. เมื่อมีโอกาสที่จะมีเพศสัมพันธ์กับหญิงที่เพิ่งรู้จักท่านสามารถใช้ถุงยางอนามัยได้ทุกครั้ง					
8. ท่านสามารถใช้ถุงยางอนามัยได้ทุกครั้งกับเพื่อนหญิงที่ร่วมสูบยาบ้า					
9. ท่านสามารถใช้ถุงยางอนามัยได้อย่างคล่องแคล่วและถูกวิธี					
10. ท่านสามารถหลีกเลี่ยงการมีเพศสัมพันธ์แบบหมู่ได้หากสูบยาบ้าร่วมกับกลุ่มเพื่อนทั้งหญิงและชาย					

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การรับรู้ผลดีของการปฏิบัติตามคำแนะนำ

ข้อความ	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1. การหลีกเลี่ยงที่จะมีเพศสัมพันธ์กับหญิงรักสนุกหรือโสเภณีจะทำให้โอกาสติดเชื้อเอดส์น้อยลง					
2. การใช้ถุงยางอนามัยทุกครั้งกับบุคคลที่ไม่ใช่ภรรยาหรือคนรักจะทำให้ไม่ติดเอดส์					
3. ยาบ้ามีฤทธิ์กระตุ้นความต้องการทางเพศ หากงดสูบกับกลุ่มเพื่อนหญิง จะทำให้โอกาสติดเอดส์ลดลง					
4. การใช้ถุงยางอนามัยได้อย่างคล่องแคล่วและถูกวิธีจะสามารถป้องกันเอดส์ได้					
5. หากหลีกเลี่ยงการมีเพศสัมพันธ์แบบหมู่ได้จะทำให้โอกาสติดเอดส์น้อยลง					
6. การใช้ถุงยางอนามัยบ่อยๆหรือทุกครั้งที่มีเพศสัมพันธ์ทำให้สิ้นเปลือง					
7. . ถุงยางอนามัยหาได้ง่าย ราคาไม่แพงและป้องกันโรคเอดส์ได้					
8. หากท่านพกถุงยางอนามัยติดตัวไว้ถึงแม้เสพยาบ้าก็สามารถหยิบใช้ได้เมื่อมีเพศสัมพันธ์					
9. การตรวจสอบสภาพถุงยางอนามัยก่อนใช้อาจทำให้เสียเวลา					
10. การพกพาถุงยางอนามัยจะทำให้ภรรยาหรือคนรักเข้าใจผิดได้					

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<u>ส่วนที่ 4</u> พฤติกรรมการป้องกันโรคเอดส์

คำชี้แจง โปรดทำเครื่องหมาย / ลงในช่อง ☐ หน้าข้อความหรือเติมคำลงในช่องว่างที่ตรงกับความเป็นจริงที่ท่านปฏิบัติ

1. การสูบยาบ้าของท่านในรอบ 3 เดือนที่ผ่านมาเป็นอย่างไร

☐ 1.เสพร่วมกับกลุ่มเพื่อนทุกครั้ง ☐ 2. บางครั้งเสพคนเดียวบางครั้งเสพกับเพื่อน

☐ 3. เสพคนเดียวทุกครั้ง

2. ในการเสพร่วมกับกลุ่มเพื่อน

☐ 1. มีเพื่อนที่เป็นผู้หญิงร่วมเสพด้วยทุกครั้ง ☐ 2. เพื่อนผู้หญิงร่วมเสพบางครั้ง

☐ 3. ไม่เคยมีเพื่อนผู้หญิงร่วมเสพเลย

3. ท่านเคยพกถุงยางอนามัยติดตัวหรือไม่

☐ 1. ไม่เคยพกเพราะ.....

☐ 2. พกบางครั้งเพราะ.....

☐ 3. พกทุกครั้งเพราะ.....

4. หากท่านเคยพกถุงยางอนามัยท่านพกด้วยวิธีใด (ตอบได้มากกว่า 1 ข้อ)

☐ 1. ใส่กระเป๋าสตางค์ ☐ 2. ใส่กระเป๋ากางเกง ☐ 3. ใส่กระเป๋าเสื้อ

☐ 4. อื่นระบุ.....

5. ในรอบ 3 เดือนที่ผ่านมาท่านมีเพศสัมพันธ์หรือไม่

☐ 1. มี ☐ 2.ไม่มี

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6. ในรอบ 3 เดือนที่ผ่านมาท่านมีเพศสัมพันธ์กับใครบ้าง จำนวนกี่คน บ่อยครั้งเพียงใด และใช้ถุงยางอนามัยหรือไม่

บุคคลที่มีเพศสัมพันธ์ด้วย	จำนวน (คน)	การมีเพศสัมพันธ์			การใช้ถุงยางอนามัย			เพราะ
		1- 2ครั้งต่อเดือน	3- 5ครั้งต่อเดือน	มากกว่า 5 ครั้งต่อเดือน	ไม่เคยใช้	ใช้บางครั้ง	ใช้ทุกครั้ง	
1. เพื่อนหญิงที่ร่วมเสพยาบ้า								
2. เพื่อนหญิงหรือแฟน								
3. หญิงรักสนุก								
4. โสเภณี								
5. ภรรยา								
6. อื่นๆระบุ								

Wimon Lukanapichonchut

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แบบบันทึกผลการทดสอบการสวมถุงยางอนามัยกับแบบจำลองของกลุ่มผู้เสพแอมเฟตามีน

<u>คำชี้แจง</u> แบบบันทึกนี้ใช้สำหรับบันทึกพฤติกรรมการสวมถุงยางอนามัยกับแบบจำลองของกลุ่มผู้เสพแอมเฟตามีน โดยวิธีสังเกต ซึ่งแบ่งขั้นตอนการสวมถุงยางอนามัยออกเป็น 6 ขั้นตอน หากปฏิบัติได้ถูกต้องให้ 1 คะแนน ปฏิบัติไม่ถูกต้องหรือไม่ได้ปฏิบัติให้ 0 คะแนน

เลขที่	ขั้นตอนการสวมถุงยางอนามัย						รวม
	ตรวจสภาพซอง	ดูวันหมดอายุ	การฉีกซอง	บีบลมส่วนหัว	การสวม	การถอด	
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BIOGRAPHY

NAME	Mrs. Wimon Lukanapichonchut
DATE OF BIRTH	28 April 1964
PLACE OF BIRTH	Chachoengsao, Thailand
INSTITUTIONS ATTENDED	Bangkok College of Nursing, 1983-1987: Diploma in Nursing and Midwifery (Public Health) Mahidol University, 1989-1990: Bachelor of Science (Public Health) Nutrition
GRANT	Getting Research Grant from Faculty of Graduate Studies, Mahidol University in the Academic year of 2001
POSITION&OFFICE	1987-1996 Rajavithi Hospital, Department of Medical Services, Ministry of Public Health Bangkok Thailand. 1996-Present Thanyarak Hospital, Department of Medical Services, Ministry of Public Health Pathumtani Thailand. Position: Professional Nurse Level 7

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