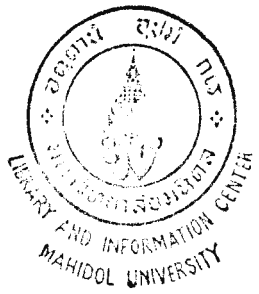

THE RELATIONSHIP BETWEEN STIGMA PERCEPTION, HOPE, AND SELF-CARE AGENCY IN HIV/AIDS PATIENTS

SURANG TANTIWINYUPONG

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF NURSING SCIENCE (ADULT NURSING) FACULTY OF GRADUATE STUDIES MAHIDOL UNIVERSITY

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This study was a descriptive research project that studied the relationship between stigma perception, hope, and self-care agency in HIV/AIDS patients. along with the study on the basic conditioning factors expected to relate to self-care agency, i.e. age, sex, educational level, and symptom severity. Orem's self-care theory was used to guide this study. The research samples consisted of 180 HIV/AIDS patients undergoing treatment in outpatient department of medicine at Bamrasnaradura Hospital during March to August, 1999. The samples were selected by purposive sampling. Five instruments used in this study were: the demographic data form, the symptom assessment form, the self-care agency assessment form, the HHI, and the stigma perception scale. Data was collected by a structured interview, and self-report questionnaires. SPSS 7.5 for Windows was used for data analysis.

Results of the study revealed that hope and self-care agency in HIV/AIDS patients were at high level while symptom severity and stigma perception were at low level. Hope and educational level had positively significant correlation with self-care agency ($r = .295$ $p < .01$, and $r = .281$ $p < .01$, respectively). Symptom severity was negatively significant in relation with self-care agency and hope. However, age, sex, and stigma perception had no significant relationship with self-care agency, and stigma perception had no significant relationship with hope. These results can be used as basic data for nursing personnel to guide them for planning and administering nursing services to HIV/AIDS patients. Further research should conduct an intervention to enhance self-care agency in HIV/AIDS patients.

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สุรางค์ ตันติวิญญูพงศ์ : ความสัมพันธ์ระหว่างการรับรู้ที่เป็นตราบาป ความหวังและความสามารถในการดูแลตนเองของผู้ติดเชื้อเอชไอวี/เอดส์ (THE RELATIONSHIP BETWEEN STIGMA PECEPTION, HOPE, AND SELF-CARE AGENCY IN HIV/AIDS PATIENTS) คณะกรรมการควบคุมวิทยานิพนธ์ : ลดาวัลย์ อุ่นประเสริฐพงศ์ พย.ด, ประคอง อินทรสมบัติ ค.ม. (การบริหารพยาบาล) 130 หน้า ISBN 974-664-134-4

การวิจัยครั้งนี้เป็นการวิจัยเชิงบรรยาย เพื่อศึกษาความสัมพันธ์ระหว่างการรับรู้ที่เป็นตราบาป ความหวังและความสามารถในการดูแลตนเองของผู้ติดเชื้อเอชไอวี/เอดส์ รวมทั้งศึกษาปัจจัยพื้นฐานที่คาดว่ามีความสัมพันธ์กับความสามารถในการดูแลตนเอง ได้แก่ อายุ เพศ ระดับการศึกษาและความรุนแรงของอาการเจ็บป่วย โดยใช้ทฤษฎีการดูแลตนเองของโอเร็มเป็นกรอบแนวคิดในการศึกษา กลุ่มตัวอย่างเป็นผู้ติดเชื้อเอชไอวี/เอดส์ที่มาติดตามการรักษาในแผนกผู้ป่วยนอกอายุรกรรม โรงพยาบาลบำราศนราดูร ระหว่างเดือนมีนาคมถึงเดือนสิงหาคม พ.ศ. 2542 จำนวน 180 ราย เลือกกลุ่มตัวอย่างแบบเฉพาะเจาะจงตามคุณสมบัติที่กำหนด เก็บรวบรวมข้อมูลโดยใช้การสัมภาษณ์ตามแบบสอบถามและการให้กลุ่มตัวอย่างตอบแบบสอบถามด้วยตนเอง จำนวน 5 ชุด ประกอบด้วย แบบสอบถามข้อมูลส่วนบุคคล แบบประเมินอาการเจ็บป่วย แบบประเมินความสามารถในการดูแลตนเอง แบบวัดความหวังและแบบประเมินการรับรู้ที่เป็นตราบาปในผู้ติดเชื้อเอชไอวี/เอดส์ วิเคราะห์ข้อมูลโดยใช้โปรแกรมสำเร็จรูป SPSS 7.5 for Windows

ผลการวิจัยพบว่า ผู้ติดเชื้อเอชไอวี/เอดส์ส่วนใหญ่มีความรุนแรงของอาการเจ็บป่วยและการรับรู้ที่เป็นตราบาปในระดับต่ำ มีความหวังและความสามารถในการดูแลตนเองในระดับสูง โดยความหวังและระดับการศึกษามีความสัมพันธ์ทางบวกกับความสามารถในการดูแลตนเองอย่างมีนัยสำคัญทางสถิติ ($r = .295$ $p < .01$ และ $r = .281$ $p < .01$) ความรุนแรงของอาการเจ็บป่วยมีความสัมพันธ์ทางลบกับความสามารถในการดูแลตนเองและความหวังอย่างมีนัยสำคัญทางสถิติ ($r = -.300$ $p < .01$ และ $r = -.186$ $p < .05$) แต่อายุ เพศและการรับรู้ที่เป็นตราบาปไม่มีความสัมพันธ์กับความสามารถในการดูแลตนเอง และการรับรู้ที่เป็นตราบาปไม่มีความสัมพันธ์กับความหวัง ผลการวิจัยนี้จะเป็นข้อมูลพื้นฐานสำหรับบุคลากรทางการพยาบาล ในการนำไปใช้เป็นแนวทางการวางแผนและการให้การพยาบาลผู้ติดเชื้อเอชไอวี/เอดส์อย่างครอบคลุม ทั้งทางด้านร่างกาย จิตใจ อารมณ์และสังคม และเป็นแนวทางในการศึกษาวิจัยต่อไป

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CHAPTER I

INTRODUCTION

Background and Rationale

AIDS is a significant problem in the world. The number of AIDS cases reported in Thailand from 1984 to 31 July 1999, totaled 119,259, of which 32,935 persons have died (Division of AIDS, Dept. of Communicable Disease Control, 1999: 5). It has been calculated that there will be 2 to 4 million HIV infected persons in the year 2000 (Hanvanich, 1992: 22). Most HIV infected persons are of working age and are aged 20 to 39 (Division of AIDS, Dept. of Communicable Disease Control, 1999: 5), so they suffer complex problems which have physical, mental, social, and economic impact on their lives. Because AIDS is an incurable disease, severity and chronic illness progresses steadily. HIV destroys the immune system, which becomes progressively depleted until it cannot defend the body against opportunistic infection such as fungus, virus, protozoa, and cancer; such as Kaposi's sarcoma and Lymphoma. AIDS patients will die in the final stage of the disease.

Because of the dreadful image of AIDS, it is perceived as an incurable epdidemic causing negative social stereotypes. People are scared and disgusted by HIV infected persons. Especially by people infected by HIV who have behavior deviating from perceived social norms (eg, homosexuality, prostitution, promiscuous sex, intravenous drug use). They are stigmatized by society. HIV infected persons have stigma perception, they are denounced as undesirable and separated from family members, friends, community and society (Blunting, 1996: 65-66). HIV infected

persons live lonely lives with no one they can rely on, accounting for an absence of resources and lack of social support. The study by Nantachaipan (1996: 183) and Allan (1990: 60) displays negative social attitudes to AIDS that have an effect on self-care. Because HIV infected persons are separated from society, it is an obstacle to self-care, especially when seeking help and support from other sources. They must devote a lot of energy to self-care for living. A significant factor in enhancing motivation in self-care operation is to inspire and maintain hope in HIV patients. Hope is inner power that facilitates the transcendence of the present situation and moves forward to new awareness and enrichment of being (Herth,1990: 1256). Hope is the sense that expresses the desire to achieve goals, the sense of possibility and the belief that if a desired goal is attained, life would be improved along with the ability to correct life's problems (Beck, et all., 1984: 487).. Therefore hope will support HIV infected persons by decreasing anxiety, discouraging hopelessness and enduring illness and attentive self-care (DisPasquale, 1990 cited by Wangsabutr, 1996: 3). As such, HIV/AIDS patients have hope in the prediction of good self-care.

Self-care is the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being (Orem, 1991: 117; 1995: 104). In enhancing a person's self-care operation, basic conditioning factors must be considered that can affect the values of self-care agency in Orem's perspective (Orem, 1985 cited by Hanucharurnkul, 1996: 48; Orem, 1995: 82).

The purpose of this research was to study the relationship between stigma perception, hope, and self-care agency in HIV/AIDS patients and basic conditioning factors that were expected to have a relationship with self-care agency, i.e., age, sex,

educational level, and symptom severity. Results of the study could be useful for planning nursing care to guide enhancement of the sufficient and continuous self-care agency of HIV/AIDS for the well-being of patients.

Conceptual Framework

The conceptual framework of the study was derived from the self-care theory which was element of Orem's nursing theory. Orem's nursing theory includes theory of nursing system, theory of self-care deficit, and theory of self-care, the theoretical conceptualization is shown in Figure 1.

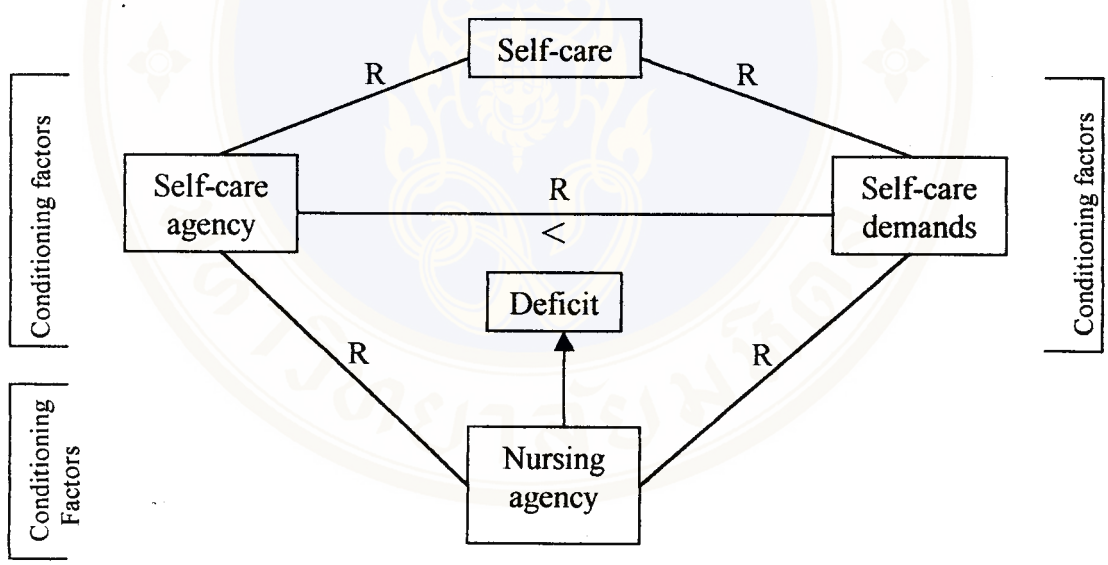

Figure 1 A conceptual framework for Orem's nursing theory. R, relationship; <, deficit relationship (Orem, 1991: 64).

Orem's concept of self-care is the deliberate action and purpose to regulate factors that affect patients' own development and functioning in maintaining life, health, and well-being (Orem, 1991: 64, 117; 1995: 103-104). Deliberate action has two phases, namely, phase one includes estimative operation, which proceeds to

reflective understanding and judgment about situations and decision making. Phase two includes action through which production is planned and controlled (including evaluation) (Orem, 1991: 83; 1995: 164) and is a response to therapeutic self-care demand. Self-care agency is the complex acquired ability to meet one's continuing requirements for care of the self that regulates life processes, maintains or promotes integrity of human structure and functioning and human development, and promotes well-being (Orem, 1991: 145; 1995: 212).

The structure of the concept of self-care agency was formalized as a three-part structure:

1. Foundational capabilities and disposition (Orem, 1991: 153; 1995: 219) are deliberate actions, and not just self-care, which include:

1.1 Basic capabilities 1 are sensation, learning, exercise or work, and regulation of the position and movement of the body and its parts.

1.2 Basic capabilities 2 are attention, perception, memory, which are the central regulation of motivational and emotional processes.

1.3 Knowing and doing capabilities are rational agency, operational knowing, learning skills, and self-consistency in knowing and doing.

1.4 Dispositions affecting goals sought are self-understanding and awareness, perceived self-image and value, self-acceptance and concern, perceived goals and needs of self.

1.5 Significant orientative capabilities and dispositionals are orientations to time, health, and surroundings, priority systems or value hierarchy such as moral, economic, aesthetic, material and social, and ability to appropriately manage the self.

2. Ten power components are viewed as intermediate between human functions and orientations and specific to self-care, not to action in general (Orem & Taylor, 1986: 48). Ten power components of self-care agency include (Orem, 1979 cited by Orem,1991: 155; 1995: 221):

2.1 Attention and exercise requisite vigilance with respect to self as self-care agent and internal and external conditions and factors significant for self-care.

2.2 Controlled use of available physical energy that is sufficient for the initiation and continuation of self-care operations.

2.3 Ability to control the position of the body and its parts in the execution of the movements required for the initiation and completion of self-care operations.

2.4 Ability to reason within a self-care frame of reference.

2.5 Motivation for self-care actions.

2.6 Ability to make decisions about care of self and to operationalize these decisions.

2.7 Ability to acquire technical knowledge about self-care from authoritative sources, to retain it, and to operationalize it.

2.8 A repertoire of cognitive, perceptual, manipulative, communication, and interpersonal skills adapted to the performance of self-care operations.

2.9 Ability to order discrete self-care actions or action systems.

2.10 Ability to consistently perform self-care operations, integrating them with relevant aspects of personal, family, and community living.

3. Capabilities for self-care operations are capabilities of individuals to perform sets of actions or operations within time and place frames which includes three types (Orem, 1991: 149, 163-167; 1995: 216-217, 230-234):

3.1 Estimative operations are the capability to investigate conditions and factors in the internal and external, and environment significant for self-care and to know self-care requisites and means of meeting them.

3.2 Transitional operations are the capability to make judgments and decisions about what can and should be done to meet self-care requisites.

3.3 Production operations are the capability to perform actions to meet self-care requisites.

Foundational capabilities and dispositions and ten power components are factors that influence the capabilities for self-care operations. Ten power components represent an intermediary stage between *foundational capabilities and dispositions* and *capabilities for self-care operations* (Orem & Taylor, 1986: 48). Gast et al. (1986 cited by Hanucharurnkul, 1996: 33) analyzed the concept of self-care agency in which each level may be used as a foundational base of its subsequent level, as shown in Figure 2.

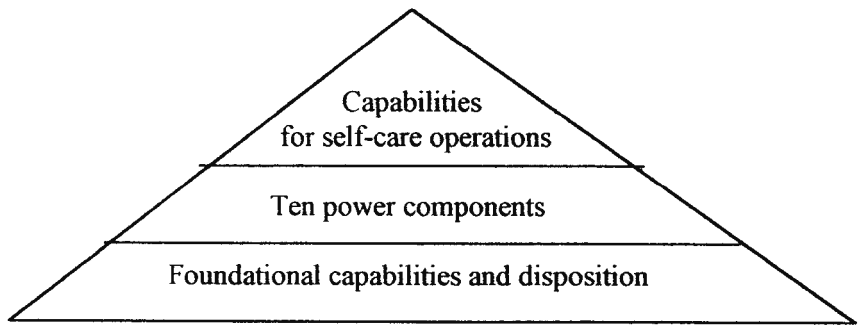

Figure 2 The structure of the concept self-care agency (Gast et al., 1989 cited by Hanucharurnkul, 1996: 33)

In addition to this structure of the concept of self-care agency, Orem said specific factors that affect self-care agency and therapeutic self-care demands are named basic conditioning factors. They are age, gender, development state, health state, sociocultural orientation, health care system factors, family system factors, patterns of living, environmental factors, and resource availability and adequacy (Orem, 1991: 136 ; 1995: 203). The factors of this study are age, sex, educational levels, and symptom severity in HIV/AIDS patients.

Age: Age is an index of personal maturation or capabilities for management of environment, mind, perception, understanding, and judgment about anything that can influence the abilities and limitations of individuals for self-care (Orem, 1991: 239; 1995: 332). Self-care agency increases with age peaking in adulthood and declining in the aged or ill (Orem, 1991: 117; 1995: 104). As such HIV/AIDS patients in each age are expected to have different self-care agency.

Sex: Sex is an indicator of differences between structure of body in women and men and is a determinant of social role performance (Kutner & Kutner, 1979: 62-66). Sex may affect self-care demand and also factors bringing about different value judgement that affect self-care agency (Orem, 1991: 136). In HIV/AIDS patients, differing sex is expected to be a factor in differing self-care agency.

Educational level: Education provides people with intellectual growth, making them well able to establish an understanding of various types of information and learn about diseases and treatment plans (Orem, 1985: 175). People with higher educational levels have greater opportunities to seek knowledge of various types of information about health and sickness, which includes the ability to decide and

conduct themselves more properly than people having with a lower education. Consequently, HIV/AIDS patients with a high educational level should have a greater self-care agency than people with a lower educational level.

Symptom severity: This is an indicator of healthiness and is a co-determinant of the entire self-care agency of a person. HIV/AIDS patients have changing health conditions with the progression of the disease. When the severity of the disease rises, it has an effect on the self-care agency.

In the aspects of the structure of self-care agency at all the three levels, stigma perception can be regarded as forming a part of a person's foundational capabilities and disposition influential to an HIV/AIDS patient's self-care agency, since it shows a person's capabilities and disposition of taking cognizance of the behaviors and expressions of people all around him. An HIV/AIDS patient perceives social disgust by assessing the behavior of people in the family, the community and health team personnel (Ounprasertpong, 1997: 16). Stigma perception shows mutual sympathy and assistance among members in the family, the community and the society as to how much they exist. An HIV/AIDS patient having a high degree of stigma perception lacks a supporting force from the family, which is a very important beneficial source in supporting and assisting the infected person physically, mentally and economically. Being condemned by society and being disgusted due to fear of the disease, results in an infected person being segregated from society. Patients have to rely on the health service system, which is a very important factor in facilitating and favoring the sick person and the family to develop independent self-care (Hanucharurnkul, 1996: 53). Recognizing that health team personnel may be

disgusted and have a negative attitude to infected persons may cause an infected person to give up seeking assistance from the health service system, causing worsening health to the possible degree of losing life. As a result of stigmatization, that person is lacking in a beneficial source to help develop self-care agency. Consequently, HIV/AIDS patients having a high degree of stigma perception have a lower self-care agency than persons having a low degree of stigma perception. Stigma perception, besides affecting the self-care agency, also effects a change in the hope of life.

An HIV/AIDS patient has to face a disease that is a constant reminder of death. Being disgusted and stigmatized by society, including losing hope, results in a lack of motivation to do activities for self-care (Lang, 1993: 55). Hope in an infected person encourages the infected person to seek various means to help himself to be able to live as long as possible. If an infected person still has the hope of life and maintains it, he will develop a motive for self-care, since hope is an inner power facilitating the transcendence of the present situation and movement forward to new awareness and enrichment of being (Herth, 1990: 1256). Consequently, hope is the motive in basic capabilities 2, which is a part of a person's foundational capabilities according to Orem's concept of self-care. So hope stimulates action in response to a problem, or the feeling or thoughts about expectations or desired events, which has a force in itself (McGee, 1984: 36). A hoping HIV/AIDS patient is therefore expected to have self-care agency.

In conclusion, this study is focused on the relationship between symptom severity, stigma perception, and hope in HIV/AIDS patients, including a study of basic

conditioning factors expected to have a relationship with self-care agency, namely age, sex, educational level, symptom severity. The relationship between these variables is shown in Figure 2.

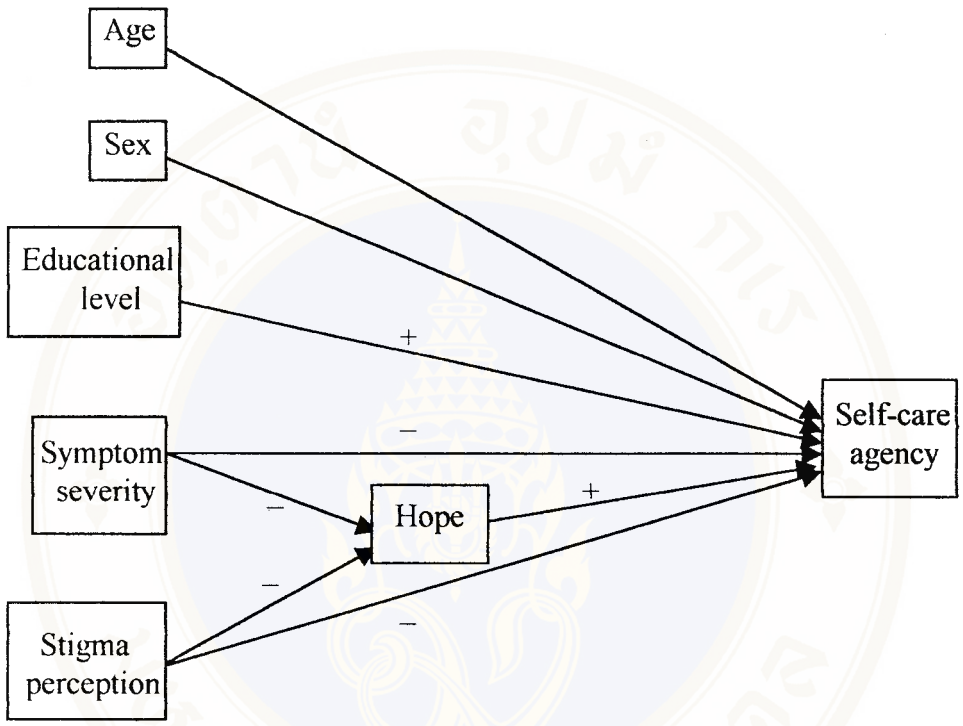

Figure 2 The relationships between basic conditioning factors, stigma perception, hope, and self-care agency.

Objectives

1. To describe symptom severity, stigma perception, hope, and self-care agency in HIV/AIDS patients.

2. To explore relationships between basic conditioning factors, namely age, sex, educational level, symptom severity, and self-care agency in HIV/AIDS patients.

3. To explore the relationship between stigma perception and self-care agency in HIV/AIDS patients.

4. To explore the relationship between hope and self-care agency in HIV/AIDS patients.

5. To explore the relationship between symptom severity and hope in HIV/AIDS patients.

6. To explore the relationship between stigma perception and hope in HIV/AIDS patients.

Hypothesis

1. Age has a relationship with self-care agency in HIV/AIDS patients.

2. Sex has a relationship with self-care agency in HIV/AIDS patients.

3. Educational level has a positive relationship with self-care agency in HIV/AIDS patients.

4. Symptom severity has a negative relationship with self-care agency in HIV/AIDS patients.

5. Stigma perception has a negative relationship with self-care agency in HIV/AIDS patients.

6. Hope has a positive relationship with self-care agency in HIV/AIDS patients.

7. Symptom severity has a negative relationship with hope in HIV/AIDS patients.

8. Stigma perception has a negative relationship with hope in HIV/AIDS patients.

Scope of the Study

This research is a study of the relationship between stigma perception, hope and self-care agency of persons judged by physicians to be HIV infected or having a positive HIV antibody examination result, who had been informed of the result for at least 8 weeks. They were aged 18 years or over, married, employed or previously employed, and came to follow up treatment in the outpatient department of medicine of Bamrasnaradura Hospital. The study includes an examination of basic conditioning factors expected to have a relationship with the self-care agency of HIV/AIDS patients, which are age, sex, educational level and symptom severity factors.

Expected Outcome and Benefits

1. For nursing practice: to be basic data for nursing personnel to put to use as a guide for planning and administering nursing to HIV/AIDS patients thoroughly in all of the physical, mental, emotional and social aspects. This can be facilitated by realizing the importance of basic conditioning factors, the creation of hope and by helping infected persons to have a declining feeling of stigma, so as to develop a self-care agency for increased well-being in society;

2. For nursing research: to be a guide for further research on factors related to the self-care agency of HIV/AIDS patients and other issues.

Definition of Terms

1. Stigma perception is the perception of HIV/AIDS patients of disgust by society, measured by the Stigma Perception Scale developed by Ounprasertpong

(1997). They perceive disgust from expressions of family members, community, and heath team personnel. Higher scores indicate higher levels of stigma perception.

2. Hope is inner power facilitating the transcendence of the present situation and movement forward to new awareness and enrichment of being (Herth, 1990: 1256). This consists of three factors including *inner sense of temporality and future*, *inner positive readiness and expectancy*, and *interconnectedness with self and others* (Herth, 1992: 1256). It is measured by the Herth Hope Index (HHI) which was developed by Herth (1992) and translated into Thai language by the researcher. Level of hope is measured by HIV/AIDS patients' agreement with items, with higher scores indicating higher levels of hope.

3. Basic conditioning factors are characteristics of HIV/AIDS patients that can affect the values of self-care agency in Orem's perspective, namely age, sex, educational level, and symptom severity.

3.1 Age is an integral number of years of age for birth until the date of study.

3.2 Sex indicates female or male HIV/AIDS patients.

3.3 Educational level is the integral number of years that HIV/AIDS patients have received education.

3.4 Symptom severity is severity of symptoms by perception or feeling of HIV/AIDS patients, and includes loss of appetite, weight loss, oral candidiasis, chronic fever, diarrhea etc. Symptom severity is measured by the Symptom Assessment Form developed by Nantachaipan (1996). Higher scores indicate higher levels of symptom severity.

4. Self-care agency is the capability to perform actions to meet three types of self-care requisites: universal self-care requisites, development self-care requisites, and health deviation self-care requisites. Self-care agency is measured by the Self-Care Agency Assessment Form developed by Nantachaipan (1996). HIV/AIDS patients assess the performance of action by themselves, with higher scores indicating higher levels of self-care agency.

CHAPTER II

LITERATURE REVIEW

This study presents the relationship between stigma perception, hope, and self-care agency in HIV/AIDS patients, including the basic conditioning factors expected to relate to self-care agency, i.e. age, sex, educational level, and symptom severity. Related literature was reviewed as follows:

1. AIDS: pathophysiology, transmission, signs and symptoms, diagnosis, treatment, and impact of HIV infection;
2. self-care agency in HIV/AIDS patients;
3. the relationship between basic conditioning factors and self-care agency in HIV/AIDS patients;
4. stigma perception in HIV/AIDS patients;
5. the relationship between stigma perception and self-care agency in HIV/AIDS patients;
6. hope in HIV/AIDS patients;
7. the relationship between hope and self-care agency in HIV/AIDS patients;
8. the relationship between symptom severity, stigma perception and hope in HIV/AIDS patients.

AIDS

Acquired Immune Deficiency Syndrome is the final phase of a progressive immune function disorder caused by the human immunodeficiency virus (HIV). HIV

is the causative agent of a syndrome characterized by progressive and severe damage to the human immune system that renders the infected person susceptible to a long list of opportunistic infections and malignancies that cause substantial morbidity and ultimately death (Grady, 1989: 1; Flaskerud & Ungvarski, 1992: 50).

Pathophysiology of HIV Infection

HIV is a ribonucleic acid (RNA) virus, one of four members of the lentivirus subfamily of retroviruses (Baigis-Smith et al., 1994: 277). RNA viruses, which causes immunodeficiency, are human immunodeficiency virus type1 (HIV-1) and HIV-2 (Flaskerud & Ungvarski, 1992: 33). The structure of HIV is surrounded by an envelope made up of proteins (including gp120) and contains a core of viral RNA and protein (including p24). HIV can enter a cell when the gp120 knobs attach to the CD4 receptors site on the surface membrane of the CD4 molecule, the most numerous of which are T4 lymphocytes. In the cell, the retroviral RNA is transcribed into a single strand of viral DNA by an enzyme called reverse transcriptase. The DNA strand can then integrate itself into the cell genome, causing permanent cellular infection and the production of new viruses (Bradley-Springer, 1995: 4; Flaskerud & Ungvarski, 1992: 34). In addition to abnormalities in T4 lymphocytes, abnormalities develop in other parts of the immune system, such as in B cell, monocytes, macrophages, and bone marrow precursor cells (Flaskerud & Ungvarski, 1992: 39-40). Generally the current median incubation period from HIV infection until the emergence of AIDS is 3 to 8 years in adults and about 2 years in children (Suvankul & Hanvanich, 1992: 11-12). After a diagnosis of AIDS, AIDS patients die within 3 years (Tribett, 1993: 1064). While 8 percent of persons have been infected by HIV for 10 to 15 years, it is

asymptomatic, via enlargement of the lymph gland which is not destroyed. The CD4 cell count is greater than 500 cells/mm^3 which can inhibit viral replication resulting in minimal HIV virus in blood and serum (Wattanachai, 1994: 2). In the question of whether each patient can develop the AIDS disease sooner, later or not at all, there are several factors to be considered (Rabiab et al., 1994: 11-13).

1. Non-infectious cofactors include:

1.1 Malnutrition: Protein-calories malnutrition and essential nutrient deficiency influence the immune system function that renders HIV infected persons susceptible to a long list of opportunistic infections. Several research reports have studied nutrition. Abrams et al. (1993: 949-952) studied dietary intake of 296 HIV-seropositive homosexual men at the end of a 6 year follow-up period and found that high nutrient intake was associated with higher CD4 counts, whereas iron, vitamin E, and riboflavin intake were associated with a 31 percent decrease in the risk of AIDS. Buam and Shor-Posner (1997: 690) found that HIV patients who received deficient vitamin A, vitamin B12, zinc, and copper effected depletive CD4, rapidly progressed to AIDS and abnormal thinking. The lower serum cholesterol was associated with a 40 percent increase in the risk of death from AIDS (Neaton & Wentworth, 1997: 929).

1.2 Alcoholic beverages, drugs and addictive agents: alcohol would press the working of lymphocytes, while cigarettes are found to have a relationship with the decline in the number of helper T-cells and to promote opportunistic infection in the lungs. In addition to this, frequent use of an antiseptic also results in pressure on immunity.

1.3 The semen and the sperms: the laceration of the anus and the lower part of the intestines in the course of anal sexual intercourse might cause semen and the sperms to reach the lymphatic system and the blood vessels, which would result in pressure on immunity.

1.4 Age: it has a relationship with immunity, in which a baby would be sensitive to various forms of infection, including HIV infection, since the natural resistance system is not yet fully developed, while in the aged, the natural resistance system would be lost, thus accounting for sensitivity to infection as well.

1.5 Pregnancy: in the second and third quarters of pregnancy, the number and the working of lymphocytes decline and then return to normal 1 month after childbirth.

1.6 Sex: the female sex loses T-cells at a slower rate than the male sex and the progress of the disease is also slower. In the United States of America boys suffering from AIDS are found to have a higher death rate than girls suffering from AIDS.

1.7 Emotional strain: it is believed to result in pressure on the working of the immunity system, causing symptoms of the disease to appear sooner, e.g. causing herpes simplex infection to worsen and give rise to cancer quickly.

2. Infection cofactors:

2.1 Various forms of infection, e.g. sexually communicable diseases, the infection of tissues, the myocarditis caused by bacteria, and tuberculosis infection, are regarded as being factors stimulating an increase of antigens and causing deficient immunity.

2.2 The infection of viruses other than HIV, e.g. cytomegalo-virus, herpes simplex, hepatitis B, herpes zoster, Ebstein-barr virus, can cause deficient immunity and boost the intensity of HIV infection.

Transmission of HIV

HIV can be transmitted in three ways: through sexual intercourse, through blood, and from mother to child (Mertens & Piot, 1997: 103-105).

1. Sexual transmission: HIV is transmitted through heterosexual and homosexual intercourse.

2. Blood transmission: HIV is transmitted through blood such as transfusions of blood or blood products, using shared needles or syringes contaminated with HIV-infected blood, organ transplantations, artificial insemination with HIV-infected semen, and puncture by instruments contaminated with HIV-infected blood.

3. Perinatal transmission: mother-to-child transmission of HIV includes transmission during pregnancy, during delivery, and through breast-feeding.

Signs and symptoms

The Centers for Disease Control and Prevention (CDC) presentation of the 1993 classification system of HIV disease on the basis of clinical symptoms and CD4 counts consists of three categories (Cohen, et al., 1994: 1.1-1.2; Suwannakool & Lilarasamee, 1993: 47-51), namely:

Category A: it is defined by a CD4 cell count greater than 500 cells/mm^3, consisting of one or more of the conditions; asymptomatic HIV infection; or persistent generalized lymphadenopathy; or acute (primary) HIV infection with accompanying illness or history of acute HIV infection, which finds 50-70 percent of the patients

after exposure to the virus within 3-6 weeks. Acute HIV infection includes any symptom of acute retroviral syndrome or acute mononucleosis-like syndrome, e.g. fever, skin rash, lymphadenopathy, chronic diarrhea, headaches and fatigue.

Category B: it is defined by a CD4 cell count between 200 to 500 cells/mm^3, consists of symptomatic conditions in an HIV-infected person that are not included among conditions listed in clinical category C and that meet a least one of the following criteria; (a) the conditions attributed to HIV infection are indicative of defect in cell-mediated immunity; or (b) the conditions are considered by physicians to have a clinical course or to require management that is complicated by HIV infection, namely:

1 Bacillary angiomatosis

2 Oral candidiasis

3 Vaginal candidiasis, recurrent or chronic or no response to treatment

4 Cervical carcinoma (in situ) or cervical dysplasia

5 Persistent fever, or diarrhea for more than 1 month.

6 Oral hairy leukoplakia

7 Recurrent herpes zoster

8 Idiopathic thrombocytopenic purpura

9 Listeriosis

10 Pelvic inflammatory disease

11 Peripheral neuropathy

Category C: is defined by a CD4 cell count of less than 200 cells/mm^3, and includes the clinical conditions listed in the AIDS surveillance case definition, namely:

1. Candidiasis of bronchi, trachea, lung or esophagus
2. Disseminated or extrapulmonary cryptococcosis such as the central nervous system
3. Disseminated or extrapulmonary histoplasmosis
4. Disseminated or extrapulmonary coccidioidomycosis
5. Chronic intestinal cryptosporidiosis (>1 month's duration)
6. Chronic intestinal isosporiasis (>1 month's duration)
7. Pneumocystic carinii pneumonia (PCP)
8. Toxoplasmosis of the brain
9. HIV encephalopathy
10. HIV wasting syndrome
11. Cytomegalovirus (CMV) disease other than liver, spleen, or nodes; CMV retinitis (with loss of vision)
12. Herpes simplex with chronic ulcer (>1 month's duration), or bronchitis, pneumonitis, or esophagitis
13. Recurrent pneumonia
14. Recurrent salmonella septicemia
15. Progressive multifocal leukoencephalopathy
16. Mycobacterium tuberculosis (any site)

17. Disseminated or extrapulmonary mycobacterium, including M.avium complex or M.kansasii
18. Kaposi's sarcoma
19. Burkitt's Lymphoma, or immunoblastic lymphoma, or primary lymphoma of the brain
20. Invasive cervical carcinoma

Once a category C condition has occurred, the person will remain in category C. In Thailand, several infectious disease experts are of the opinion that infection by disseminated penicillium marneffei must be an indicator of AIDS conditions.

Diagnosis of HIV infection

HIV antibody screening is generally done by diagnosis. The enzyme-linked immunoassay (ELISA) is done initially. Blood samples that are negative on this test are reported as negative. If the blood is ELISA is reactive, the test is repeated. If results of the repeat test are negative, this test is reported as negative. If the blood is repeatedly reactive, a more specific confirming test such as the western blot (WB) or immunofluorescent assay (IFA) is done. Tests with indeterminant results are repeated in 3 to 6 months. Besides this, several other screening methods include, P24 antigen capture assay, polymerase chain reaction (PCR), viral load assay, and HIV culture (Bradley-Springer, 1995: 6; Metcalf et all, 1997; 177-193).

The major problem with these tests is the delay of 3 weeks to 6 months before detectable antibodies are produced. This stage is called the "Window period" in which HIV infected persons can transmit the virus to others, but they will not test HIV antibody positive (Bradley-Springer, 1995: 6; Wasi, 1997: 17.9-17.12).

Treatment

At present the HIV disease is considered one in which cure may not be possible but in which early intervention might improve survival in 3 ways:

1. Prophylaxis for opportunistic infection, cancer, and management of acute problems.

2. Antiretroviral therapies are used to stop HIV disease progression. The only drugs approved for the treatment of HIV infection are zidovudine (ZDV, AZT), didanosine (ddI), zalcitabine (ddC), and stavudine (d4T) (Flaskerud & Ungvarski, 1992: 465,467). Problems associated with these drugs include their expensive price and adverse effects including bone marrow toxicity (eg, AZT), peripheral neuropathy (eg, ddC, ddI, d4T), pancreatitis (eg, ddI), myopathy (eg, AZT), and hepatic abnormalities (eg, AZT, ddI) (Flexner & Hendrix,1997: 485). At present, two antiretroviral drugs are used together, e.g AZT+ddI or AZT+ddc, because of decreasing drug-resistance, and three drugs have been used in an experimental combination therapy which is believed to improve effective treatment (Phanuphak, 1996: 341).

3. Immune-based therapy via passive immunotherapy, e.g. monoclonal antibodies; cytokine therapy, e.g. monoclonal antibodies; cytokine therapy, e.g. interferons, interleukin; immunosuppressive therapy, etc. found that they are restoring immunocompetence (Sneller & Lane, 1997: 509-518). Furthermore, anti-HIV gene therapy, e.g. gene vaccines, have been developed that effectively inhibit HIV (Driessche et al, 1997: 519-529). At present, experts of various fields are conducting

research in order to find out methods of effectively curing and preventing HIV infection, which is hoped to be successful in the near future.

Impacts of HIV infection

AIDS is a disease having direct physical and mental impact on HIV/AIDS patients and also on the family, the society and the economy as follows:

1. Physical impact:

When HIV gets into the body, in the initial phase it does not yet show obvious symptoms; there are only symptoms similar to a cold fever, or having a fever, which disappear within 1-2 weeks. When the progression of the disease has destroyed the immunity of the body so much as to reach a critical level, infection rises and a complicating cancer is suffered from which the symptoms of AIDS become apparent (Phanuphak, 1996: 332-333). If the infected person fails to take care of himself in order to maintain good health and reduce supplementary factors, e.g. the behavior of sexual promiscuity, the progress of the disease will be quicker, with the growth and increase of the number of HIV antibodies quickly reducing the immunity of the body. The HIV infected person begins to have more conspicuous complaints or symptoms of the disease, i.e. fever, fatigue, nocturnal perspiration, lymphatic gland enlargement, reduced weight, chronic diarrhea or the presence of oral candidiasis. In the final phase, the infected person suffers from various forms of opportunistic infection or Kaposi's sarcoma, which may be fatally severe (Bradley-Springer, 1995: 13-14; Flaskerud & Ungavarski, 1992: 2-3; Phanuphak, 1996: 333-334), and in addition to this, AIDS dementia. More than 65 % of HIV infected persons have disorders of the nervous system, e.g. loss of memory, emotionlessness, reduced cognizance, depression.

2. Metal impact:

When judged to be HIV infected, infected persons in the initial phase have an emotional response, from feeling benumbed to various expressions, e.g. shock, refusing and being unable to take cognizance of any information, fearing and worrying very much, being unable to control himself, feeling that his life is threatened, that death is waiting ahead (Khamhomkun et al., 1992: 71), and having feelings of declining self-value. Because people in society feel that infected persons are disgusting, patients are apt to be rejected, abandoned, separated and stigmatized by society, thus being deprived of self identity and self-image, the ability to control oneself, the role in the family, job, and income. The person's life is threatened by diseases and various forms of opportunistic infection, thus accounting for declining ability and self-care. The more a person's health worsens, the more the patient feels hopeless, thus being highly likely to think about committing suicide.

3. Impact on the family:

When a family member gets an HIV infection, impact is borne on the quality of life of the other family members in all of the aspects of worry about the health of the infected person. The fear that neighbors would be disgusted when knowing their family has an HIV infected person, causes the family to bear added responsibilities. This also includes loss of income and loss of the role of the family member, and includes changing relationships within the family (Nilaiyakan, 1994: 215-218).

4. Impact on society:

Mass media messages are apt to present views making people fear the AIDS peril in order to put an end to behavior that presents risk factors in HIV infection,

making people develop a terror due to being afraid that they could get infected with HIV. These things create a stigma about HIV infected persons. As infection can destroy the happiness, hope and future of the person concerned, behavior reflecting disgust and contempt from society also result in declining sense of value and self-dignity (Kelly & Lawrence, 1988: 88-130; Nonthapathamadul et al., 1990: 225). At present mass media messages present softer views, urging society members to show compassion, sympathy, acceptance and living together with HIV infected persons, but it is still a difficult process of acceptance and a long time is needed to change social views.

5. Impact on the economy:

HIV infection has impact on the economy both within the family and of the country, since the majority of infected persons are in the working age. The state goes to a great deal of expense to cure HIV infected persons, which includes the loss of budgets for investment in studies and research in order to discover vaccines for AIDS prevention and control and for staging campaigns disseminating knowledge and information to the people. In addition to this, it also affects tourism, which used to bring earnings to the country, because of the fear for the risk of becoming infected by HIV (Nilaiyakan, 1994: 219-220).

From the direct and indirect impact on HIV/AIDS patients, self-care agency of infected persons is also caused to decline, which is an important issue accounting for the quicker progress of the disease and the eventual death of the infected person. Consequently, promoting and developing self-care agency is necessary for HIV/AIDS patients.

Self-Care Agency in HIV/AIDS Patients

The self-care concept arises from recognition and acceptance of the fact that each individual is responsible for his or her own self-care, whatever the level of health or illness (Mullin, 1980: 177). Self-care is a method by which individuals can develop their own abilities for living a good and healthy life. The essence of the self-care movement is control, responsibility, freedom, expanded options, and an improved quality of life (Norris, 1979: 486) and shows the ability and the conduct of a person in improving activities in daily life, as well as the environment, for good health, well-being, and an ability to live peacefully in society. In addition to this, self-care is a process permitting a person to do things for his or her own benefits in promoting health, preventing diseases, diagnosing irregularities and administering preliminary treatment (Levin, 1979 cited by Joseph, 1980: 131).

Linn & Lewis (1979, cited in Wirojratana, 1991: 18) say that self-care is doing things in person which give rise to the promotion of health in normal people. This reduces expenses for medical care and unnecessary use of public health services, and increases efficiency in treatment. It encourages the patient to be responsible for himself, and reduces the burden of the physician as well as reducing sickness, both physical and mental. In addition to this, self-care is a process of learning and practicing. Each person adapts to the environment concerned and the person is willing to be responsible for taking care of his own health. This helps with the prevention, control or cure of diseases, as every human being has the potential to learn and develop self-care skills, which may arise from an internal motive or from outside the person (Hill & Smith, 1985: 9).

Steiger & Lipson's (1985: 12) definition of self-care suggest that it is an activity initiated or performed by the person, the family, or the community in order to achieve or maintain good health and promote the best possible health, conforming to the perspective of Orem (1991: 117). Orem suggests that self-care is practicing an activity initiated and performed by a person for his/her own benefits in preserving life, health and well-being. Self-care is a deliberate action for response to the three types of self-care requisites namely: universal self-care requisites, development self-care requisites, and health deviation self-care requisites (Orem, 1991: 121; 1995: 108).

From the aforementioned meanings of self-care, it can be summed up that self-care is a behavior performed in person by a person in order to maintain his own health in a normal, happy condition. In an infected person it is regarded as being a basic conditioning factor of a person causing the infected person to have a declining self-care agency. For an infected person, the self-care agency expressed in the form of a correct and suitable self-care behavior would arise from the person having performed self-care activities to fulfill the entire therapeutic self-care demand so as to cover all the three types of self-care requisites as follows:

1. Universal self-care requisites: self-care relating to the promotion and maintenance of the person's health and welfare, which must be adapted to the development phase and along with different situations. An HIV infected person should have the general necessary self-care activities as follows:

1.1 Take care of yourself so that you receive fresh and sufficient air by arranging the environment and the residence to give good ventilation that prevents respiratory infections, including the recommendation for abstinence from smoking.

1.2 Take care of yourself so that you receive sufficient water by drinking at least 1,500–2,000 milliliters per day of clean water and adjusting that quantity in relation to the loss of water in the body, e.g. when there is a chronic diarrhea due to a disorder in gastrointestinal system or the rise of intestinal cancer.

1.3 Take care of yourself so that you receive sufficient food. Since nutrition is important to the immunity of the body, it helps repair tissues and gives energy. An HIV infected person should eat food to the full of all the five groups, namely: proteins, carbohydrates, fats, minerals, salts and vitamins, including avoiding strongly tasting foods, alcoholic drinks and smoking, which irritate wounds in the oral cavity.

1.4 Take care of yourself so that you have normal defecation and urination by eating clean foods, refraining from eating pickled or half-cooked foods. Wash your hands before and after eating or cooking foods. In case of diarrhea, you should dispense with foods irritating the gastrointestinal system canal and drink a mineral water to compensate for loss of water. In case of chronic diarrhea, you should go to see the doctor for diagnosis.

1.5 Take care of yourself so that you have an equilibrium between having activities and resting by doing physical exercises regularly, which would help build up the immunity against diseases and the strength of the body (Baigis-Smith, Coombs & Larson, 1994:279). A study of 28 HIV infected persons and AIDS patients, comparing level CD4 before and after receiving 8 weeks' aerobic physical exercise has revealed that levels CD4 and T4/T8 were significantly increased (Keyes et al., 1989 cited by Baigis-Smith, Coombs & Larson, 1994: 279). In addition to this, there are reports that

after three physical exercises (for a total of 45 minutes) per week for a period of 10 weeks, it has been found that, in a group of 10 homosexuals infected with HIV but not yet displaying symptoms, the amount of CD4 was significantly increased (LaPerriere, et al., 1991: 55). Regarding rest, it enables the body and the mind to ease various forms of tension, e.g. sleeping or doing a hobby. Therefore, HIV infected persons should have time to rest in the daytime and sleep continuously at nighttime for at least 6-8 hours. This allows the neurons to rest, which helps the blood circulation system take food and various minerals to the cells throughout the body, helping the cells to receive maintenance and repair for the worn out portion (Sirivongvilaichart, 1993: 22).

1.6 Take care of yourself so as to keep an equilibrium between personal time and social interaction, in order to develop self-reliance and seek assistance from people in society. HIV infected persons should have free time to enjoy privacy; at the same time they should establish relationships with other people. This can begin with family members and people in general, so that there will be an exchange of opinions. As such a person retains a role in social activities, making friends and creating a feeling of affiliation for people all around him, thus making interdependence possible and bringing about a feeling about his own value and a motive to perform self-care on an ongoing basis.

1.7 Take care of yourself so as to prevent various dangers to life, duties and welfare by having to prevent more infection, e.g. cleaning the oral cavity, brushing the teeth at least twice daily, regularly keeping the cleanliness of the body, keeping the environment healthy, avoiding persons with communicable diseases, e.g. common cold, tuberculosis. In addition to this, the infected person must prevent infection from

spreading to other persons by separately using personal articles, e.g. tooth-brush, razor, nail clipper.

2. Development self-care requisites: self-care for the purpose of preventing the occurrence of adverse effects of HIV infection on the development of the person or minimizing strain arising by relaxing methods. Examples of this include releasing feelings to the attention of a close person, performing meditation, praying, listening to songs, reading, adjusting your cognizance realistically viewing and assessing the situation, being able to adapt to society, being able to play various roles in society according to existing potential, and being able to find a way-out when faced with various problems.

3. Health deviation self-care requisites: self-care arising when there is a deviation of the structure and functions of the body, e.g. suffering from a disease or sickness, including results from diagnosis and treatment, e.g.:

3.1 Seeking and maintaining assistance from the health service system by asking for advice, assistance and follow up for the results of treatment by a physician, nurse or health service official on a regular basis. Reporting for an examination according to the physician's appointment, asking questions about self-care, following up the progress of infection and assessing various problems as they arise.

3.2 Recognize and pay attention to the disease and its impact on yourself by attaching importance to observing your unusual conditions, the change of the disease and the impact arising, and reporting various conditions arising to the attention of the treating physician for the purposes of treatment and self-care planning.

3.3 Conduct yourself according to the treatment and rehabilitation plans and prevent or reduce any potential complication, e.g. prevent and minimize diarrhea or infection of the skin, take medicine according to the physician's instructions and follow up regularly, according to appointments.

3.4 Recognize and pay attention to taking care of and preventing unhealthiness from side-effects of treatment or from diseases by seeking knowledge by various means or talking, to exchange experiences with fellow patients so as to find out the most suitable method for use in solving your own problems.

3.5 Adapt yourself to the change arising from sickness and treatment by accepting the condition of sickness, the necessity to receive specific treatment from the health service system, accepting dependency upon other people, accepting the image concerning yourself, including developing and maintaining your own value.

3.6 Learn to live with the effects of the pathology of the disease or the existing conditions peacefully, adjust the pattern of life so as to promote yourself to have the best possible development according to the remaining ability.

Other than the aforementioned self-care, several research studies have discovered self-care procedures of patients. The pre-experimental research by Wattradual (1994: Abstract) studied the efficacy of promoting patients' participation in self-care in order to decrease self-care deficit and increase quality of life in 71 HIV/AIDS patients. Results of the study found that the patients developed self-care procedure in three categories, namely:

1) promotion of health and prevention of the progression of AIDS;

2) prevention from infecting and transmitting the HIV virus;

3) controlling or relieving symptoms, e.g. fever, diarrhea etc.

The ethnographic study by Sangchart (1997: Abstract) observed 30 persons with HIV infection and AIDS, who received medical service from a particular hospital in the Northeastern Region. The results of study found a culture of self-care among persons with HIV infection and AIDS and was seen as a process incorporating three interrelated themes of Tamchai, or attempting to hide from others, and integrating healing methods. Integrating healing methods included the promotion of physical health to prevent the spread of HIV virus and seek relief from particular symptoms. Three interrelated strategies for self-care were influenced by certain factors, in which the ultimate goal was the prolonging of life and the achievment of well-being.

The action research by Nantachaipan (1996: Abstract) aimed at developing a model of promoting self-care in 60 persons with HIV infection/AIDS. Based on qualitative data, 6 domains of nursing role were found. They were a) management of physical and mental illness, b) monitoring and ensuring the quality of health care practices, c) management of changing situations, d) organizing self-care systems, e) promoting patients to learn how to live with AIDS, and f) collaboration with other significant persons. Self-care behavior of persons with HIV infection/AIDS consisted of preserving dignity and prestige, seeking care and cure, maintaining health and well-being, maintaining self-esteem, developing skills in problem solving, coping with emotional or mental problems, keeping a sense of self-control, and managing economic and daily living problems. Factors influencing those self-care abilities could be categorized into personal factors, environmental factors, and AIDS-situational factors.

It is visible that therapeutic self-care demand arising from the effect of HIV infection are complicated and increased while health deviates. The illness, which reduces the patient's physical and intelligence abilities, makes the infected person deficient in cognizance, thought, decision-making and self-care performance. The infected person must therefore develop and use to the utmost, existing self-care agency, in order to be able to respond to self-care requisites sufficiently and continuously, to maintain well-being and quality of life. To encourage an HIV/AIDS patient to develop and maintain self-care agency requires taking account of basic conditioning factors and other factors having a relationship with self-care agency. This is expected to have an influence on the HIV/AIDS patient's self-care agency.

The Relationship between Basic Conditioning Factors and Self-Care Agency in HIV/AIDS Patients

The basic conditioning factors expected to have a relationship with an HIV/AIDS patient are:

Age: it has a relationship with self-care agency by showing the ability to manage one's habits, cognizance, interpretation, understanding and decision-making capacity, differing at various development levels and being the determinant of therapeutic self-care demand, including the person's ability both in normal conditions and when ill (Orem, 1985: 255-256). Amaraphibal (1993: Abstract) found that there was a significantly positive relationship between age and self-care ability of clients who were HIV positive at a low level. Several studies indicated that there was a significantly positive relationship between age and self-care agency in preventing AIDS in prostitutes (Thungjaroen, 1991: 49), and between age and health behavior

related to AIDS prevention in parenteral drug abusers who receive methadone treatment (Anathep, 1992: D). The study by Porter, et al.(1993: 20) about factors associated with lack of awareness of HIV infection before diagnosis of AIDS in 4,127 adults with AIDS diagnosed, found those aged 25-49 years were significant less likely to be unaware than those aged 15-24 years and those aged 50 and over.

Other studies found that there were no significant relationships between age and self-care agency in adult cancer patients receiving chemotherapy (Warralukkanakul, 1992: 64) and in HIV infected persons (Boonyaleepan, et al., 1997: 31). Besides, age was not related to self-care deficit (Noimuenwai, 1993: 60) and not related to health-promoting behaviors in HIV infected persons (Kaewsawang, 1997: 75; Pongsomboon, 1996: 74).

Sex: sex is another factor which determines universal and health deviation self-care requisites, performance power or ability, and methods or choice of self-care requisites (Orem, 1991: 136). Results of the study in HIV-infected persons found that women had better self-care ability than men (Boonyaleepan, et al., 1997: 31) and also that women were less likely to be unaware than men. This was significant at .05 level (Porter, et al.,1993: 20). For adolescents in a crowded community in Bangkok women were found to have significant AIDS preventive behavior (Luangsuvalai, 1991: 51).

However, the studies by Intaraksa (1991: 33) and Uckanit (1991: 34) in patients with chronic obstructive pulmonary disease, and Panawatanakul (1991: 34) in elderly persons, found that men had better self-care agency than women at a significant level. However, some research studies found that there were no significant relationships between sex and self-care agency in head and neck cancer patients while

receiving and after the completion of radiotherapy (Takviriyanun, 1991: 52). This was also apparent in end-stage renal disease patients treated with continuous ambulatory peritoneal dialysis (Phichaikul,1990: 36), and in elderly persons (Vithayachockitti-khun, 1991: 38). Furthermore, studies in HIV-infected persons found that sex was not significantly correlated with self-care deficit (Noimuenwai, 1993: 60); and with health-promoting behavior (Kaewsawang, 1997: 75; Pongsomboon, 1996:74).

Educational level: education is an important factor in the development of knowledge, skills, and good attitudes to self-care agency (Orem, 1985: 175). HIV/ AIDS patients with higher education had greater consideration about their situation, understanding any information, and seek information about self-care agency, than patients with lower education levels (Pender, 1987: 48). The study by Amaraphibal (1993: Abstract) found a significantly positive relationship between education and self-care ability of the HIV positive clients. Education was significantly positively related to self-care agency to prevent AIDS in prostitutes (Thungjaroen, 1991: 49) and with AIDS preventive behavior in adolescents in crowded communities (Luangsuvalai, 1991: 51).

Kaewsawang (1997: D) and Pongsomboon (1996: D) studied educational level in clients with HIV infected and found a significantly positive relationship with health-promoting behaviors. Similarly, the study by Noimuenwai (1993: 60) found that there was a significantly negative relationship between educational level and self-care deficit in HIV infected persons. However, some studies found that educational level was not significantly related to self-care behavior in HIV-infected persons (Laoankha, 1997: B). It was not significantly related to self-care agency in cancer

patients receiving chemotherapy (Warralukkanakul, 1992: 64) and in HIV infected persons (Boonyaleepan, et al., 1997: 32); and also educational level was not significantly related to health promoting behavior of hypertensive patients (Sampunyu, 1996: Abstract).

Symptom severity: it is the indicator of a person's healthiness or self-care agency and co-determinant of self-care demands both at present and in the future. When the health of an HIV/AIDS patient changes along with the phase of the disease, it limits the ability to make decisions, use reason and perform self-care. As such, an infected person needs assistance from others in order to respond to his own self-care requisites (Orem, 1991: 117, 120). The HIV/AIDS patient's feeling that his own health becomes weaker and sickness is greatly threatening his life and welfare disheartens him from making the decision to perform activities useful to himself, thus incapacitating him from the growing need to care for himself (Pender, 1987:64). When the severity of the disease intensifies, it may result in a reduced motive or give rise to self-care deficit.

Noimuenwai (1993: 60-61) studied social support, self-care deficit and quality of life in 120 HIV-infected persons and found that the second stage of the illness was significantly positively related to self-care deficit and negatively related to quality of life. Nantachaipan (1996: 186) studied and found that infected persons with a high degree of sickness have a declining self-care agency, particularly the capabilities at the performing level. This accounts for the absence of the continuance of self-care and those recognizing that they have rather good health are apt to have the willpower and develop a motive to take care of themselves on an ongoing basis. From

a study by Cleary et al. (1993 cited by Ounprasertpong, 1997: 43) interviews were conducted with 189 AIDS patients and it was found that symptoms had a very high relationship with the ability to perform activities of daily living, i.e. sickness of the nervous system, pain, fatigue and low appetite. Moreover, the factors best capable of predicting the ability to perform the daily life activities were overall physical symptoms and fatigue, while perception of the satisfaction of life was found to have a high relationship with physical symptoms and fatigue. The conclusion of this study is that the fatigue and perception of overall physical symptoms are the best predictors of quality of life, and a study by Ragsdale & Morrow (1990: 355-358) of 95 AIDS infected persons at all phases of the disease found that AIDS infected persons of differing phases of the disease would have a differing quality of life, of whom those in the asymptomatic phase would have a significantly better quality of life than those in the other phases.

Similar to the study of HIV-infected persons, results of a study of patients with chronic obstruction pulmonary disease indicated that symptom severity was significantly negatively related to self-care practice and able to predict quality of life (Chaitiamwong, 1992: 50). The studies by Chotanakarn (1996: 108) in breast cancer patients receiving chemotherapy and Jirajarus (1996: 114) in colorectal and anal cancer patients found that health status had a significant influence on self-care behavior. Besides those studies which found relationships between symptom severity with self-care agency and quality of life, some studies in HIV-infected persons found that symptom severity was not related to self-care behavior (Laoankha, 1997: B) and to health-promoting behavior (Kaewsawang, 1997: 75; Pongsomboon, 1996: 74).

From the above literature review, age, sex, educational level and symptom severity factors are found both to have and not have a relationship with the self-care agency of HIV/AIDS patients. In addition to this, other co-factors expected to have a relationship with the self-care agency of HIV/AIDS patients are stigma perception and hope.

Stigma Perception in HIV/AIDS Patients

Perception is a cognitive and mental process of man in choosing to respond to various stimulants arising in the environment, which comes in through the senses of the body. When various data have been input into the cognitive system, a person chooses to take perception of and organize the data concerned, followed by the process of remembering and interpreting the data by means of the attributes existing within the person, e.g. attitude, experience, need, value. When the person has decided and assessed the value of the outcome from the process, he will express a behavior according to the value decided by him. The result of the expression will serve as feedback going into the perceptional process again. Consequently, the person's perceptional process is dynamic and relative to time and various events arising in the environment around the person (McGhie, 1986: 215-216; Perreault, 985:29). In an HIV/AIDS patient, perception of the behavior and expressions of people all around him is what the infected person attaches importance to, which has a significant effect on his mental condition.

For perception of people, AIDS is a severely infectious disease which is incurable and eventually causes death. These aspects cause society to be terrorized by HIV infected persons. The study of public anxiety from the information of AIDS

mass media campaigns during 1981-1991 found that information was present in using a negative approach. The fear arousal technique had led to the negligence of other AIDS related information, the discrimination against HIV patients, mass anxiety, the misinterpretation, and regression among HIV patients (Chansuwan, 1992: Abstract).

Besides AIDS being a dreadful disease, HIV infected persons were a source of social disgust as the cause of infection is often associated with bahavior which is perceived as deviating from social norms, such as homosexuality, promiscuous sex, and intravenous drug use. Chapilman (1993: Abstract) studied 615 samples which included the general public, health workers, high risk groups, HIV or AIDS carriers and their families. She found that the majority of attitudes about the cause of HIV infection placed the blame on HIV-infected persons because transmission occurred through contact with prostitutes. However, they pitied and sympathized with persons who had transmitted the disease through blood transfusions or from injuries received through contaminated instruments. These caused HIV/AIDS patients to be aware of their social stigma.

Stigma is a mark or a brand, originating from a Greek word meaning to tattoo or stick. It is a mark of shame or discredit, and specific diagnostic signs of a disease. The plural "stigmata" refers to bodily wounds resembling those of the martyred Christ (Mish, 1987 cited by Bunting, 1996: 65). Another meaning for the word is the sticky tip of a flower pistil on which pollen is deposited. In an English-Thai dictionary (Sethaputra, 1995), a meaning of stigma is given, meaning making a false accusation for a person to lose reputation, a blemish, a label, a birth mark, a spot, a mould, the floor of the ovary receiving pollen and generating a flower, and from a

Medical Science Dictionary (Thiangburanatham, 1993: 1036), it means a disease vestige, a dot, a spot, the spot on the ovary where the ovum sac in the ovary is going to break out.

The concept of stigma was described by Goffman as the relationship between an attribute and a stereotype. A person with a stigma was an undesirable attribute, and was blamed as not quite human, different from other human beings, and received negative feelings from society. This is because of being tainted or deeply discredited (Goffman, 1963, cited by Bunting, 1996: 65). Stigma was the individual's perceptions of self and others' perceptions of the individual which they perceived as different from others and which also lay outside society. These attributed characteristics are assigned by interaction within other members of society (Goffman, 1963 cited by Korniewicz, et al., 1990: 15).

Persons perceived as stigmatized individuals have psychosocial changes (Goffman, 1963 cited by Korniewicz, et al., 1990: 16):

1. decreased self-concept because the perceptions of self are different and not socially accepted;
2. lower self-esteem including feelings of shame and discredit;
3. social alienation because of the cutting off of relationships with significant others;
4. inadequate social functioning because of the inability to cope within social groups.

Some diseases are labeled as a "stigma" because people in general desire to separate themselves from anything that reminds them of illness, disfigurement,

disability and, worse of all, death. The prototype of a stigmatized disease is leprosy (Bunting, 1996: 65). In Thailand, Bunmongkhon (1993 cited by Ounprasertpong, 1997: 47) who has studied stigma in leprosy patients, believes that the reason for the stigma in leprosy patients is reflected by the idea of dirtiness deeply embedded in social concepts of leprosy. The belief of common people is that leprosy is a transformed venereal disease and results from the sexually promiscuous behavior of men who like to have sexual intercourse with prostitutes.

Thai society is apt to attach value to the cleanliness of the body by relating it to fragrance. So the high degree of perspiration in leprosy patients accounts for a strong body odor, thus causing society to be disgusted by them. Moreover, patients have disfigurement, disability, bent and stiff hands and feet and wounds with blood and pus, so they are viewed as ugly, disgusting or unpleasant to look at, thus resulting in people avoiding or refusing to communicate with them just as they do with HIV/AIDS patients. The image of the patient as being skinny, having vestiges of diseases on the skin and being regarded by society as being a dangerous person, thus results in social stigmatization.

A study by Ounprasertpong (1997: 88) found that symptom severity had a significantly positive relationship with the stigma perception of HIV/AIDS patients, and Suwisith (1997: 155-170), who studied the experiences of people living with HIV infection by interviewing a number of 10 infected persons (members of the Organization Providing Care and Support to HIV Infected Persons, Perth, Australia), found that the experiences of the infected persons were interpreted and appeared as the experiences of the stigma, the wheel of emotions, changes, loss, wanting to die and

weathering through obstacles. The majority of these people viewed AIDS as being a stigma of society. It was seen as a black list on which everyone whose name was present would be separated and treated differently from others. People showing a disgust range from family, partners, lovers, friends, colleagues, health personnel and society members in general.

Research reflecting the reactions sustained by HIV/AIDS patients from society members, e.g. the family, the community and health team personnel, which cause stigma perception to occur to the infected persons are as follows:

The family aspect: A study by Charoenpattarapasat (1994: Abstract), studying the social support of families to AIDS patients, found that the families had the feeling of sympathy and comparison for the AIDS patient. 88% allowed them to live with the family; but the relationship to the patient changed for the worse after sickness. A study by Siriphong et al. (1994 cited by Ounprasertpong, 1997: 40) found that after a patient had informed the family that she suffered from AIDS, the older brothers and sisters of her husband were disgusted by her, and she was separated and made to live separately, not being allowed to eat sharing the same table. The daughter was prohibited from getting near the mother, and she was eventually left to die all alone. A study by Chaiphibansarit et al. (1991: Abstract), which studied the psychosocial pattern of AIDS infected Thai men by the method of interviewing in depth, revealed that in the psychosocial aspect AIDS infected persons are abandoned by the parents, relatives, siblings, colleagues and health personnel, who feel disgusted by them.

The community aspect: Ruengyutthikan (1993: 47,75) studied knowledge, attitude, and AIDS behavior of the population in Chiang Mai municipality. The results of this study found that the majority of the samples had a good attitude toward HIV infected persons. However, the minority of them thought that a list of HIV infected persons should be announced to the public. Some thought that they should live in a restricted area with laws set for punishment if they were not obedient. And also that AIDS persons should attend special restricted hospitals to be taken care by specialist doctors and nurses and their families. A study by Hongwiwat (1994 cited by Ounprasertpong, 1997: 50) found that AIDS patients were completely denied association; friends alienated themselves; when joining in a festival activity there was a division and discrimination against the patient, e.g. trying not to let the patient come to help in work concerning food preparation.

The study by Srisaengthong (1996: Abstract), studied the self-concept and the self-exposure of AIDS infected persons in a group of 125 samples, and found that 50.4 percent (63 persons) did not reveal themselves, giving as a reason that they did not want to see infected persons like them, thinking that when having revealed themselves they caused a burden for others in taking them to receive medical treatment. They needed encouragement, understanding, and wanted to have someone to take care of them when sick. The researcher explained that the majority of infected persons would usually not tell anyone about their infection. A person who could not keep the secret would have to face being stigmatized by others, to cause disgust and be unable to stay with the family as before. In addition to this, there are also other impacts in the matter of career.

The aspect of health team personnel: Panchapong (1990: 34), conducted a study about AIDS patients from 318 health personnel and other relevant personnel, and found that a large number of health personnel felt that they did not yet have sufficient knowledge and that if they could choose, they would not provide services to AIDS patients. However, they admitted it is a duty that must be performed. Siriroaj et al. (1993: Abstract) studied 484 medical staff and found that the samples had attitudes about caring for patients with AIDS at an intermediate level. They believed that AIDS is a dreadful disease (94.8 percent), that taking care of AIDS patients leads to unnecessary waste of resources (86.7 percent), patients with AIDS are hopeless to cure (58.7 percent), they feel fear of AIDS during their duty (50.9 percent), and they believed that the staff are at high risk of HIV infection due to their work (82.8 percent). However, 86.7 percent never refused to care for patients with AIDS.

The study of Changsarn (1991: Abstract) on stigmatization of AIDS patients in 561 nurses included an issue of prejudice, social interaction, and interpersonal evaluation. The results of this study found that samples had prejudice in the moderate level (49.0 percent), the high level (41.7 percent), and the low level (9.3 percent). The samples had prejudice by suggesting a separation between patients and society. In social interaction, the samples were mostly still performing their duty and avoiding activity that increased exposure to infection. For interpersonal evaluation, the samples evaluated a basis for respect to AIDS patients. Deviant behaviors were double stigmatized, e.g. homosexuality, prostitution, promiscuous sex, and drug-addiction. This research showed that although health personal will not refuse to care for HIV infected persons, they have a negative attitude that affects service to patients.

From the aforementioned research concerning the reactions of the family, and the reactions of community and health team personnel to HIV/AIDS patients, the negative reactions sustained by infected persons in various forms, which cause them to be stigmatized are shown. It indicates the physical, mental and social impacts on them, which also have an impact on their self-care agency.

The Relationship between Stigma Perception and Self-Care Agency in HIV/AIDS Patients

Stigma perception is an HIV infected person's perception of social disgust. The consequences of stigma, in which HIV infected persons attempt to hide from others involves two aspects; from oneself and from family and society (Sangchart, 1995: Abstract). This is caused by the fear that when people are close to know the truth the infected persons might lose love, warmth, understanding and be neglected (Mooktharalosa, 1997: (6)). As such they try to lead their life in the same manner as they did before knowing that they were infected. However, when infected persons could not conceal the secret, their suffering became more apparent, which in most cases was not a suffering arising from the health question but a mental and social one from the loss of things of value and the hope for the future, e.g. loss of the life, family, and career future. This includes having to face disgust from society and suffering a repeated condemnation from society (Hoontrakun, 1993 cited by Mahatnirankun, 1994: 11). This conforms with a study by Ounprasertpong (1997: 89), who found that stigma perception had a negative significant relationship with role adaptation in HIV/AIDS patients. In addition to this, the suffering sustained by the infected person from taking cognizance that the family and the society disgust him makes him lack

motivation for self-care, which includes a pack of benefit sources to help promote self-care agency.

The studies by Nantachaipan (1996: 187) and Allan (1990: 60) pointed out that the negative attitude to AIDS of society members has an effect on the self-care agency of infected persons. In the aspect of the health service system, which is a basic factor influential to a person's self-care agency, it was found that the negative attitude of physicians and nurses to HIV infected persons caused the infected persons not to receive due care.

A study by Suwisith (1997: 156) found that the HIV infected person had the experience of disgusting health personnel upon entry to receive the services at the hospital by sustaining expressions in the form of showing anger, giving care with an unwilling attitude and unsuitable prevention of infection. This conforms to a study by Breult & Polifroni (1992: 21-27) of 16 nurses, who found that the nurse who had to take care of AIDS would become afraid, angry, feel weary and feel powerless. As a result of the fear, the nurse would have a behavior of preventing infection beyond necessity, e.g. wearing too many preventing units and ones unfit for the nursing activity, including avoiding approaching patients to talk with them or touch them. This happens despite having feelings of compassion for the patient and feelings of increased value when administering care to the patient.

In addition to this, some HIV infected persons might be disparaged with such attitudes and words from personnel in the health team as to causes them to decide not to go to ask for the services and leave their illness to randomly develop (Siriroch, et al., 1993 cited by Ounprasertpong, 1997: 53). As such, HIV infected persons who

want good self-care, are unable to develop a self-care agency duly according to the potential. Stigma perception, besides affecting the self-care agency of HIV/AIDS patients, also has a relationship with another factor, i.e. hope.

Hope in HIV/AIDS Patients

Hope is a word difficult to explain clearly, since it is a matter of emotions and feelings within a person. When a person has hope, it gives rise to an expected goal and feeling that he will achieve that goal, thus giving rise to a motive and perceived way of controlling his life (Lynch, 1965 cited by McGee, 1984: 35-36) and way of meeting with what is expected (McGee, 1984: 35). Therefore in a sick person hope gives rise to a motive to use self-care for to control illness or bring healthiness back to an equilibrium. Even in a healthy person hope also makes the person try to do various things to lead to success according to the expected goal. Hope is therefore an important force in the leading of life of human beings; it is a readiness to give rise to expressions in various matters by expecting to achieve success in the future, although there is diffidence mixed in with it (Miller, 1983:287). In an HIV infected person hope, therefore, helps push the infected person to try to seek self-care methods in various aspects so as to make his health sound and is a force helping him to be able to support his life peacefully.

In a condition where a person's life both at present and in the future is full of uncertainty, hope would be the center of the belief that there is a way to cause needs necessary for life to be responded to (Niwatchai, 1985: 1091), and his life will change positively or he will be able to solve various problems arising in his life (Beck, et al., 1984: 10). Hope is, therefore, like an inner power that facilitates the transcendence

of the present situation and movement toward new awareness and enrichment of being (Herth,1990:1256) and makes the person perceive light in the midst of a dark life from various problems and obstacles faced. At the same time, a person's hope does not last forever, but there will be dynamic changes with several dimensions by having the character of confidence in things expected to come true in the future (Dufault & Martocchio, 1985:380). To sum up, hope is a motive pushing a person to perform various behavioral aspects by expecting a positive goal in the future. Considering the structure of hope as to which part of it is so defective as to cause a person to be hopeless, the concept of Beck et al., offers a division of which there are several concepts.

1. Hope related with a future: the person having the hope would want to change his own life and therefore make the best of the present to lead to the desired future.

2. Hope related with reliance upon others: the hope to receive assistance from others in the period in which factors inside the person do not sufficiently exist or decline.

3. Hope related with an option: the person believes that he still has an option, which makes him feel being himself in controlling life, feel being free to choose and decide for himself, even if that option is not the direct way to lead to the goal.

4. Hope related with a desire: it is a magic hope which gives rise to satisfaction. Although the person is well aware that his desire would usually not meet with success, hope will make him lay plans toward the goal concretely, with a greater

possibility to achieve success than a desire not making a person invent a method or way toward the goal.

5. Hope related with trust and effort: it makes the person trust others that they will be able to help him when a crisis arises, with real effort and determination to face difficult problems without losing the will power, even though having to spend however long a time.

6. Hope related with bravery: it makes the person firmly determined in his own goal, even though having to face uncertainty by trying to control his fear when facing a problem so as to determine the best solution to the problem, even if not successful, with a feeling of satisfaction that he has not turned down or run away from the problem.

Dufault &Martocchio (1985: 381-389) divide hope into six dimensions: affective, cognitive, behavioral, affiliative, temporal and contextual, with details as follows:

1. The affective dimension focuses upon sensations and emotions and includes an attraction to the desirable outcome, a sense of personal significance of the outcome, with both feelings of confidence and uncertainty about the outcome and a broad spectrum of positive and negative feelings that may accompany hope. This dimension permeates the whole of the hoping process. It encompasses multiple feeling, and is both comforting and painful by expression of person.

2. The cognitive dimension focuses upon the process by which individuals wish, imagine, wonder, perceive, think, remember, learn, generalize, interpret, and judge in relation to hope. Components of this dimension include identification of

objects, examination and assessment of reality in relation to hope, discrimination of actual and potential internal and external hope-promoting factors from hope-inhibiting factors, perception of the desired future outcome as realistically probable or possible, though not certain, and imaginative use of past and present facts that affect the desired outcome.

3. The behavioral dimension focuses upon the action orientation of the hoping person in relation to hope. Persons may take actions to effect the desired outcome into one or more of four realms: psychological, physical, social, and religious. Hoping persons use appropriate activities, such as organizing ideas, planning strategies, making decisions, and thinking about how a situation can be resolved or how a climate can be created to fulfill the hope and the acts taken by the individual to achieve hope. This behavioral dimension is related with the cognitive dimension and the affiliative dimension.

4. The affiliative dimension focuses upon the hoping person's sense of relatedness or involvement beyond self as it bears upon hope. This dimension includes components of social interaction, mutuality attachment and intimacy, other-directedness, and self-transcendence which is not only by relationship with persons, but also other animated beings, dead persons or sacred beings. This dimension expresses hope in the form of an expectation to receive response in something from other persons or things the person loves or believes in, e.g. sympathy, assistance and mutual cognizance of each other's feelings between members of the family, of the community, including the religious scope.

5. The temporal dimension focuses upon the hoping persons' experience of time (past, present, and future) in relation to hopes and hoping and the degree of time specificity or nonspecificity of hope. This dimension includes the extent of inclusion of past, present, and future into the hoping process. The past influences a person's hope in several ways such as people have experienced a good that was hoped for in the past, they desire it for the future or they have disappointment. Hope extends the present into the future by individuals hoping that the present will be changed to become even better in the future. Individual hopes relate to the future in different ways, in which some hopes involve the near future and some hopes are time-specific and others are non-time-specific, e.g. the patient hoping his condition will improve in a few days.

6. The contexual dimension is awareness and experience within the context of life as interpreted by focuses upon those life situations that surround, influence, and are part of a person's hope. This dimension is experienced as the situation of actual or potential loss such as physical well-being and human life, functional abilities and independence, ability to be creative and to enjoy or participate in recreational and intellectual activities, ability to fulfill role expectations, meaningful relationships, financial security, and valued possessions.

At a later time, Herth (1991: 40; 1992: 1255) developed the Herth Hope Scale (HHS) on the basis of the ideas of all the six dimensions of Dufault & Martocchio by gathering overlapping dimensions together and dividing hope into three aspects. Hope according to Herth's concept has a proximity to the hope in an HIV/AIDS infected person. In this research, the researcher adhered to these ideas, which are:

1. **Inner sense of temporality and future:** it is the gathering together of the cognitive dimension and the temporal dimension, an optimistic internal cognizance that the desired outcome will be realized soon or in the future, in which future outcome may be something either actually arising or not but which the person hopes will be achieved. Some HIV infected persons follow up messages concerning progress in AIDS treatment and have a hope to live up to the date on which the AIDS curing medicine is successfully invented. Several HIV infected persons hope that they will have a normal health for a reasonably long time, which makes them able to perceive their future, but if they viewed that their future was not certain, it would make them wanting in the willpower to generate hope.

2. **Inner positive readiness and expectancy:** it is the gathering together of the affective dimension and the behavioral dimension, a feeling of confidence combined with the effort to do to attain the desired outcome, including to revive positive memories in the past. For example, some HIV/AIDS patients have an outcome to keep the body weight from reducing by eating a large quantity of food from the past when they could keep their weight according to the standard yardstick, feeling proud and confident in spite of the condition of sickness that they will be able to maintain the body weight and having the courage to do various work. Some infected persons, when seeking relief from the condition of the disease, can do various activities by themselves because they hope to return to normalcy soon.

3. **Interconnectedness with self and others:** it is the gathering together of the affiliative and contextual dimensions, the recognition of interconnectedness and interdependence between self and others and between self and the spiritual, i.e.

relations between persons having affiliation, love and care for and giving assistance to each other, which makes a person feel being a part of another person and gives rise to hope within the mind. In addition to this, it includes faith in various things, e.g. sacred beings, which helps a person feel that he will be able to get through various situations. In HIV/AIDS patients there may be the hope to live for children or a spouse, feeling that he is of value and importance to the family members. For Thai, Buddhist patients, hope can be maintained through adherence to the Buddhist religious teaching principles for a peaceful mind and earning a great deal of merit for life to be happy.

Since AIDS is an incurable disease, infected persons are apt to think of approaching death, which causes them to develop anxiety, strain and depression. They become segregated from society, become disheartened, hopeless and disparate (Hongwiwat, et al., 1993: A-B), which is a common cause of thinking about committing suicide. Hope is, therefore, a must for HIV/AIDS patients. One would usually have hope, e.g. hoping to meet with success in career; ill persons hope the illness will improve and even if they have to die, they hope to die in peace. So hope is an important factor that gives HIV/AIDS patients a positive feeling about the future and helps them to seek new experiences. This includes cooperation in medical treatment, since hope is a motive which has a force in itself; it results in the behavior of adaptation in patients (Robert, 1978 cited by Parnumasmonton, 1991: 4). Having hope will help stimulate the working of the immunity system; it enables the body to better resist diseases and it slows down the progress of the disease in the severe phase. As hope is a mental condition recognized by the limbic system in the brain, it is then signaled on to the hypothalamus, which controls the immune system and the working

of the pituitary gland. This in turn stimulates the working of the immune system to produce more immunity (Simonton, et al., 1987: 80-82). HIV/AIDS patients, therefore, must necessarily maintain hope.

The Relationship between Hope and Self-Care Agency in HIV/AIDS Patients

From Herth's concept, a hoping person would feel confident and try to achieve an expected positive outcome. In HIV/AIDS patients, hope is therefore a motive for them to take care of themselves in order to achieve the expected thing, and when disheartened feelings arise, it would be less of an obstacle to the self-care agency of the infected person. From a research in 110 HIV/AIDS patients found that hope related positively to health-promoting behavior ($r = .2046$). Education and hope predictors accounted for 11.97 percent variance in the degree of health-promoting behaviors at the statistically significant level of .05 (Kaewsawang, 1997: C-D).

Research by Wongsabutr (1996: Abstract) studied relationships among social support, hope, and self-care behavior of 70 persons with AIDS receiving treatment at Phrabatnampu Temple, Lop-Buri Province. It was found that there was a significantly positive relationship between social support and hope and social support, hope, and self-care behavior. In addition, hope was studied in other patients such as in renal failure patients receiving hemodialysis, and it was found that hope was significantly positively related to health practice in patients and hope was able to predict 12.74 percent of variance (Suphakorn, 1997:C-D). The level of hope has a relationship with depression and the level of self-care of the patient. A patient with a high level of hope has a declining level of depression. Conversely, if a patient has a declining level of

hope, the patient tends to have a rising level of depression, which makes him show improper behavior, e.g. disturbance to sleeping and resting (Pinyocam, 1988: 25).

Thongsiri (1988: 103-105) studied the relationship between hope, health perception, and life satisfaction of 120 head and neck cancer patients receiving radiation therapy and found that hope was significantly positively related to life satisfaction. Patients in stage I and II had life satisfaction more than in stages III and IV. The study by Choowattanapakorn (1988: 67-70) found that hope was significantly positively related to adaptation in malignant lymphohemopoietic patients, and she recommended that cancer patients should be encouraged to have hope, since hope is an inner power of the mind which would keep pushing the person to be strong and able to face the critical condition of life, as well as able to support life in a qualified manner. A study by Parnumasmonton (1991: 74-77) found that hope had a positively significant relationship with adaptation in 100 leukemic patients; the patients could help themselves in doing daily life activities normally and could go to work and perform activities in the work done normally.

From the research presented in the section on hope related to the self-care agency of HIV/AIDS patients, it was found that there were few studies. The researcher had the idea that hope is an important thing for HIV/AIDS patients, and is influential in helping infected persons to support life peacefully. It is a part of the foundational capabilities and disposition of self-care agency. So the researcher was interested in studying the relationship between hope and the self-care agency in HIV/AIDS patients.

The Relationship between Symptom Severity, Stigma Perception, and Hope in HIV/AIDS Patients

Symptom severity has a relationship with hope in HIV/AIDS patients, as infected persons with high levels of symptom severity have an uncertain feeling about the disease, suffer depression, feel disheartened and hopeless. From the qualitative study report of Weitz (1989 cited by Nantachaipan, 1996: 52-53), who studied 23 AIDS infected men by following up to interview them at intervals of 4-6 months, he found that with the passage of time and with the worsening of symptoms, patients would have an uncertain feeling and feel hopeless. This caused patients to lose willpower and have no motives to do anything for themselves any more, feeling that they could not control or deal with problems. They also felt that what they had done was of no use or unsure that it would be of any further use. In contrast, with persons whose condition did not change so much, they would have a motive to continue taking care of themselves. This conformed to a study by Nantachaipan (1996: 186) in which is was found that HIV infected persons who perceived that they had rather good health tended to have willpower and develop a motive for continuous self-care.

Poticharaen (1996: Abstract) studied the relationships between personal factors, social support and hope of AIDS patients and the predictors of hope in 195 AIDS patients. The findings were that personal factors; i.e., marital status, high family income, long time of knowing about the illness, sharing information with others, health despite the burden, social support in the aspects of emotion, esteem, tangibility, and information were positively related to hope of AIDS patients. The predictors of hope were status, time of knowing, health, esteem, and information

support, which could predict hope in 77.89 percent of situations. The conclusion from the literature review is that severity symptoms are negatively related to hope in HIV/AIDS patients.

Cutcliffe (1995: 888-895) found that nurses can inspire and instill hope in terminally ill HIV patients by reflection on past action, affirmation of worth, being a part of a health team (creating a partnership), and focusing on the totality of the person. When a person has hope, he has a motive to give rise to the behavior of doing various activities according to the approach hoped for. In an HIV infected person whose stigma perception is high, the self-esteem drops, coupled with the fact that an infected person, being perceptive of family and social disgust, is caused to be wanting in willpower, and develops a sense of feeling disheartened and hopeless. Consequently, stigma perception has a negative relationship with hope. That is, an infected person whose stigma perception is high has a low level of hope.

To summarize the review of all the literature, it is clear that AIDS is a severe and chronic communicable disease affecting the person physically, mentally and economically. For the time being there is not yet a method by which to cure this disease. Self-care is therefore an important thing for HIV/AIDS patients. As such, this work is concerned with the study of age, sex, educational level, symptom severity basic conditioning factors, including the stigma perception and hope factors, which are expected to have a relationship with the self-care agency of infected persons. The knowledge gained from the research will be useful for self-care agency development for HIV/AIDS patients to be able to support life peacefully.

CHAPTER III

MATERIALS & METHODS

This is a descriptive research that studied the relationship between stigma perception, hope, and self-care agency in HIV/AIDS patients, including a study of the basic conditioning factors expected to relate to self-care agency, i.e. age, sex, educational level, and symptom severity in HIV/AIDS patients.

Subjects and Setting

The subjects of the study were HIV/AIDS patients from the outpatient department of medicine at Bamrasnaradura Hospital. One hundred and eighty subjects were calculated from 30k (k = number of dependence variables) (Nunnally, 1987, cited by Monro & Page, 1993: 214). The subjects were recruited to the study using purposive sampling based on the following inclusion criteria:

1. 18 years of age or over;
2. married, employed or previously employed;
3. HIV positive antibodies or judged by physicians to be infected with HIV, who had been informed of the result for at least 8 weeks, at any stage of the disease;
4. good consciousness and ability to read or understand Thai language;
5. willingness to participate in the study.

Instruments

Five Instruments were used in the study: Demographic Data Form, Symptom Assessment Form, Self-care Agency Assessment Form, Herth Hope Index (HHI), and Stigma Perception Scale (see Appendix B).

1. **The Demographic Data Form.** This was collected and included items such as age, sex, educational level, domicile, present address, person to whom patient disclosed HIV infection, stage of disease following the Centers for Disease Control and Prevention (CDC), etc.

2. **The Symptom Assessment Form of HIV/AIDS patient.** This was designed by Nantachaipan (1996) to measure the perceived level of symptoms and severity of illness in HIV/AIDS patients. The scale was designed from the literature review and information was identified by 20 AIDS patients at home in the following 3 months. It included 23-item for frequent symptoms, an open question for other symptoms in item 24, and self-care methods for managed symptoms in each item. The study was adapted by leaving item 24 and the self-care methods to be interpreted according to Nantachaipan's advice. The scale for the study is a 23-item, 4-point Likert scale (0 = no symptoms, 1 = low severity, 2 = moderate severity, 3 = high severity). Summative scores can range from 0-69, with higher scores denoting greater symptom severity.

In the study, some instruments analysed subscales and each subscale had an unequal number of items, and the researcher thereby established the subscale mean score by dividing the summative score of each subscale by the number of items, resulting in the mean score. Similarly, the scores of symptom severity were also

adjusted. Summative scores were 0-3 and categorized into 4 levels (Ounprasertpong, 1997: 85): scores equal to 0.0 indicated no symptoms, scores greater than 0.0 to 0.5 indicated very low severity, scores greater than 0.5 to 1.5 indicated low severity, scores greater than 1.5 to 2.5 indicated moderate severity, and scores greater than 2.5 to 3.0 indicated high severity.

Validity and reliability testing

Ounprasertpong (1997) reported a Cronbach's alpha of .83 in 50 HIV/AIDS patients, .84 in 367 HIV/AIDS patients, and was not find item (psoriasis) in subjects.

A pilot study was conducted to assess the reliability in 30 samples, which found that the Cronbach's alpha was .86, and was .88 when it was used with 180 subjects in this study.

3. Self-Care Agency Assessment Form of HIV/AIDS Patients. This was designed by Nantachaipan (1996) from literature reviews, the concept of Orem's Theory, and information identified by 20 AIDS patients in a pilot study project of self-care agency development. All 30-items were used to assess self-care behavior which was categorized mostly by self-care agency items responded to in three subscales of self-care requisites. These subscales include universal self-care requisites (13 items), development self-care requisites (3 items), and health-deviation self-care requisites (14 items) which are answered according to a 3-point Likert scale (0 = never practiced, 1 = sometimes practiced, 2 = always practiced). Summative scores can range from 0-60, with higher scores denoting greater self-care agency.

Scores were adjusted by dividing the summative scores of each subscale by the number of items equal to 0-2.0, which were then categorized into 3 levels: scores

equal to 0.0 to 0.6 indicated a low self-care agency, scores greater than 0.6 to 1.3 indicated a moderate self-care agency, and scores greater than 1.3 to 2.0 indicated a high self-care agency.

Validity and reliability testing

Content validity of the instrument was evaluated by AIDS patients and 5 experts (1 AIDS specialist and 4 theoretical and practical nursing specialists). For internal consistency reliability, Nantachaipan reported a Cronbach's alpha of .95 with 20 AIDS patients and between .84-.89 in the repeated measures with 60 AIDS patients.

A pilot study was conducted to assess reliability in 30 samples, which found that the Cronbach's alpha was .80, and was .84 when it was used with 180 subjects in this study.

4. The Herth Hope Index (HHI) is an adapted version of the Herth Hope Scale (HHS), designed by Herth (1992). It clearly reflects the unique dimension of hope in the clinical population, and reduces the number and complexity of items. All 12 items included inner sense of temporality and future (4 items), inner positive readiness and expectancy (4 items), and interconnectedness with self and others (4 items). The scale is a 4-point Likert scale, an ordinal scale from 1 to 4, where a score of 1 indicates strong disagreement and a score of 4 indicates strong agreement, with summative scores ranging from 12 to 48. All items had 10 positive and 2 negative items. Negative items were reverse scored so that a higher score would indicate a higher level of hope.

Scores were adjusted by dividing the summative scores of each subscale by the number of items equal to 1.0-4.0. These scores were then categorized into 3 levels: scores equal to 1.0 to 2.0 indicated a low level of hope, scores greater than 2.0 to 3.0 indicated a moderate level of hope, scores greater than 3.0 to 4.0 indicated a high level of hope.

Validity and reliability testing

In this study, the HHI was translated into the Thai language and then validated by 5 experts (see Appendix B). After the Thai version of the HHI was modified according to the advice of experts, the reliability of the instrument was tested in 30 HIV/AIDS patients, and it was found that the Cronbach's alpha coefficient was .73. When this instrument was used with 180 subjects in this study, the Cronbach's alpha coefficient was .78.

5. The Stigma Perception Scale is a self-report measure, designed by Ounprasertpong (1997) to measure the level of social stigma perceived by HIV/AIDS patients from, for example, families, communities, and health team personnel. The scale was developed from literature reviews and in depth interviews of 5 HIV/AIDS patients. All 29 items included stigma perception from families (12 items), communities (10 items), and health team personnel (7 items). The scale is a 4-point Likert scale for approved measurement (1 = not true, 2 = the least true, 3 = mostly true, 4 = the most true); possible scores can range from 29 to 116. All items had 25 negative and 4 positive items; positive items were reverse scored so that a higher score would indicate a higher level of stigma perception.

Scores were adjusted by dividing the summative score of each subscale by the number of items equal to 1.0-4.0. These scores were then categorized into 4 levels: scores equal to 1.0 to 1.5 indicated low stigma perception, scores greater than 1.5 to 2.5 indicated moderate stigma perception, scores greater than 2.5 to 3.5 indicated high stigma perception, and scores greater than 3.5 to 4.0 indicated very high stigma perception.

Validity and reliability testing

Content validity of the instrument was measured by 7 experts, including 4 nursing experts and 3 social experts. Ounprasertpong's measure (1997) was improved according to the advice of experts, which found a content validity index of .90. Reliability of the instrument was indicated by a Cronbach's alpha of .91 for 50 HIV/AIDS patients, and .90 for 367 HIV/AIDS patients in the study.

A pilot study was conducted to assess reliability in 30 samples, and it was found that the Cronbach's alpha was .89, and was .89 when it was used with 180 subjects in this study.

Protection of Human Subjects

The human rights of the subjects were respected in this study (see Appendix A). Eligible subjects were approached to participate in the study. The purposes of the study were explained, along with benefits, risks, types of questionnaires, length of time for completing the questionnaires, and right to refuse to participate in the study. The subjects who agreed to participate were informed and assured that the data would be kept confidential and reported only as group data.

Data collection

Following Faculty of Graduate Studies, Mahidol University, and the administrators of Bumrasnaradura Hospital approval, data was collected according to the following procedures:

1. Screening for eligible subjects based on the inclusion criteria in every third person at the outpatient department of medicine, Bumrasnaradura Hospital, Monday to Friday at 9.00-12.00 am.

2. All eligible subjects were approached and before the data had been collected, the study objectives were explained, along with expected outcomes, data collection processes, and the subjects' right to participate in this study.

3. The subjects who volunteered to participate in the study must answer the following to continue: the demographic data form, the symptom severity assessment form, the self-care agency assessment form, the Herth Hope Index, and the stigma perception scale.

4. The subjects were interviewed about information related to demographic data and symptoms were assessed with the subjects according to the symptom severity assessment form.

5. The self-care agency assessment form, the Herth Hope Index, and the stigma perception scale, were answered by the subjects themselves. If the subject could not answer, they would be interviewed following the assessment form.

Data Analysis

All data was analyzed using SPSS version 7.5 For Windows Program:

1. Demographic data was reported by descriptive statistics: frequency and percentage.

2. Demographic data about age and educational level was reported by descriptive statistics: range, mean, and standard deviation.

3. Levels of symptom severity, stigma perception, hope, and self-care agency in HIV/AIDS patients were reported by descriptive statistics: range, mean, and standard deviation.

4. Relationships between sex and self-care agency were analyzed by Chi-square

5. Relationships between age, educational level, symptom severity, stigma perception, hope, and self-care agency were analyzed by Pearson product moment correlation coefficient. Score were calculated the level of relationship (r) by r equals 0.0 to 0.3 or –0.3 means a low correlation; r greater than 0.3 to 0.7 or –0.3 to –0.7 means moderate correlation; and r greater 0.7 to 1.0 or –0.7 to –1.0 mean high correlation.

CHAPTER IV

RESULTS

This research covered a study of the relationship between stigma perception, hope, and self-care agency in HIV/AIDS patients, along with a study of the basic conditioning factors expected to relate to self-care agency, i.e. age, sex, educational level, and symptom severity in HIV/AIDS patients who followed up on treatment at the outpatient department of medicine, Bamrasnaradura Hospital, from March to July 1999, totalling 180 cases. The results of the study are presented in the form of tables with description in the following order: characteristics of the samples, symptom severity, stigma perception, hope, and self-care agency in HIV/AIDS patients and hypothesis testing results.

Characteristics of the Samples

The samples were HIV/AIDS patients who were married, employed or previously employed. 73.33% were male and 26.67% were female. Approximately 26.11% disclosed the infection condition to their spouses alone, 55.56% disclosed the infection condition to their spouses, individuals in the families, 17.78% made the disclosure to their spouses, families and communities, and 0.55% disclosed their condition to nobody. Most of the infected persons (about 74.44%) were in category C of disease progression, i.e. the AIDS stage, while the remainder (about 22.78%) were in category B,

i.e. the symptomatic stage which is relate to AIDS, and 2.78% were in category A, i.e. the asymptomatic stage. Antibodies toward HIV examination results of spouses showed an 45.00% positive, 35.00% twice negative, 4.44% once negative, and pending the second examination 6 months after the first examination, 15% had not yet made examination and 0.56% made no disclosure to their husbands. Most of the samples, about 65.56%, lived in the central region, followed by about 14.44% who lived in the north-eastern region. About 87.78% had a present address in the central region, followed by about 5.55% who had a present address in the eastern region. Out of those who had a present address in the central region, about 39.44% were presently residing in Bangkok, with about 16.67% residing in Nonthaburi Province, the location of the place where the data was collected. In terms of the causes for taking the infected persons to the hospital; about 86.11% came to follow up indicated by physicians appointment, about 10.00% came due to irregular symptoms, while the remaining 3.89% visited the hospital due to other causes. The details are shown in Table 1.

Table 1. Characteristics of the Samples: number, percentage (n = 180).

Characteristics	Number	Percent
Sex		
Male	132	73.33
Female	48	26.67
Disclosed the infection condition		
Not disclosed	1	0.55
Disclosed to spouse alone	47	26.11
Disclosed to spouse and family	100	55.56
Disclosed to spouse, family, and community	32	17.78

Table 1. Characteristics of the Samples: number, percentage (n = 180) (continued).

Characteristics	Number	Percent
Stage of disease		
Category A	5	2.78
Category B	41	22.78
Category C	134	74.44
HIV-Antibody examination of spouse		
Positive	81	45.00
Twice negative	63	35.00
Once negative (pending the second examination)	8	4.44
No examination	27	15.00
Not disclosed to husband	1	0.56
Domicile (divided by region)		
North	8	4.44
Central region	118	65.56
East	7	3.89
North-east	26	14.44
West	11	6.11
South	10	5.56
Present address (divided by region)		
North	2	1.11
Central region	158	87.78
East	10	5.55
North-east	3	1.67
West	5	2.78
South	2	1.11
Present address (divided by province)		
Bangkok	71	39.44
Nonthaburi	30	16.67
Other Province	79	43.89
Cause for taking to the hospital		
Follow up	155	86.11
Irregular symptoms	18	10.00
Other	7	3.89

The age of the sample group is 21 to 60 years with an average age of 33.56 years. Educational level calculated by length of educational period is in the range of 0 to 16 years with an average education level of 8.62 years. The details are shown in table 2.

Table 2. Range, mean, and standard deviation of age and educational level (n = 180).

Variable	Range	Mean	SD
Age (years)	21-60	33.56	6.80
Educational level (length of education period)	0-16	8.62	3.85

Symptom Severity, Stigma Perception, Hope and Self-Care Agency in HIV/AIDS Patients

Table 3 presents range, mean standard deviation and meaning of the study variabes in terms of total scale and subscale. As each subscale of some questionnaires has an unequal number of items, the subscale mean was calculated by dividing the summative score of each subscale by the number of items. Similarly, the scores of symptom severity were adjusted too. The results of the study found that the samples had low symptom severity. For the score range of 0 to 2.00, the mean score was 0.54, and the standard deviation was 0.42.

Table 3. Range, mean, and standard deviation of scores symptom severity, stigma perception, hope, and self-care agency in terms of total scale and subscale.

Variable	Range	Mean	SD	Meaning
Symptom Severity	0.00-2.00	0.54	0.42	Low
Stigma perception (Total scales)	1.00-3.62	1.43	0.37	Low
Stigma perception from family	1.00-3.67	1.32	0.44	Low
Stigma perception from community	1.00-3.50	1.66	0.45	Moderate
Stigma perception from health team	1.00-3.71	1.30	0.50	Low
Hope (Total scales)	1.58-4.00	3.08	0.44	High
Inner sense of temporality and future	1.75-4.00	3.01	0.46	High
Inner positive readiness and expectancy	1.25-4.00	2.99	0.59	Moderate
Interconnectedness with self and others	1.50-4.00	3.24	0.49	High
Self-care agency (Total scales)	0.67-2.00	1.53	0.27	High
Universal self-care requisites	0.46-2.00	1.47	0.32	High
Development self-care requisites	0.57-2.00	1.48	0.47	High
Health deviation self-care requisites	0.57-2.00	1.58	0.29	High

Considering stigma perception, hope, and self-care agency in terms of total scales and subscales, the details are shown in table 3. The results of the study found that the total score on stigma perception was in the low level (Mean = 1.43). In each subscale it was found that the subscale with the highest mean score was stigma perception from the community (Mean = 1.66), next was from family (Mean = 1.32) and the lowest mean score was stigma perception from health team personnel (Mean = 1.30) of which the stigma perception from community mean score was in the moderate level, while family and health team personnel mean scores were in the low level.

In hope of the samples, it was found that the total mean score was in the high level. For each subscale it was found that the subscale with the highest mean score was

the interconnectedness with self and others (Mean = 3.24). Next was the inner sense of temporality and future (Mean = 3.01) and the lowest mean score was inner positive readiness and expectancy (Mean = 2.99). Interconnectedness with self and others and inner sense of temporality and future mean scores were in the high level while the inner positive readiness and expectancy mean score was in the moderate level.

For self-care agency of the samples, it was found that the total mean score was in the high level (Mean = 1.53) and in terms of each subscale, it was found that of the three subscales self-care agency that were in high level, the health deviation self-care requisites had the highest mean score (Mean = 1.58). The next priorities would be the development self-care requisites (Mean = 1.48), and the universal self-care requisites (Mean = 1.47) respectively.

Hypothesis Testing Result

In this research, the research hypothesis was set in 8 clauses. Clauses 2 studied the relationship between sex and self-care agency in HIV/AIDS patients, the Chi-square was used for analysis as shown in table 4. Clauses 1 and 3 to 6 studied the relationship between age, educational level, symptom severity, stigma perception, hope, and self-care agency. Clause 7 to 8 studied the relationship between symptom severity, stigma perception, and hope in HIV/AIDS patients. Pearson product moment correlation coefficient was applied to analyze the correlation, and details are shown in table 5. The results of data analysis answers the hypothesis thus:

Hypothesis 1 Age had a relationship with self-care agency in HIV/AIDS patients. The results of the study found that age had no significant relationship with self-

care agency ($r = .013$ $p > .05$) as shown in table 5 (pp.75), and this clause of hypothesis was therefore rejected.

Hypothesis 2 Sex had a relationship with self-care agency in HIV/AIDS patients. The results of the study found that sex had no significant relationship with self-care agency ($\chi^2_{.393,\ 1} = .531$) as shown in table 4, and this clause of hypothesis was therefore rejected.

Table 4. Relationship between sex and self-care agency in HIV/AIDS patients (n = 180).

Variable	Self-care agency		χ^2	p-value
	Low	High		
Sex				
Male	31	101	.531	.393
Female	12	36		
Total	43	137		

Hypothesis 3 Educational level had a positive relationship with self-care agency in HIV/AIDS patients. The results of the study found that there was a positively significant relationship between educational level and self-care agency at the .01 level ($r = .281$). The results showed that the samples with high educational level would have good self-care agency, and this clause of hypothesis was accepted.

Hypothesis 4 Symptom severity had a negative relationship with self-care agency in HIV/AIDS patients. The results of the study found that there was a negatively significant relationship between symptom severity and self-care agency at the .01 level

(r = -.300), which showed that the samples with high symptom severity would have low self-care agency, and this hypothesis was accepted.

Hypothesis 5 Stigma perception had a negative relationship with self-care agency in HIV/AID patients. The results of the study found that there was no significant relationship between stigma perception and self-care agency (r = .053 p> .05), and this clause of the hypothesis was therefore rejected.

Hypothesis 6 Hope had a positive relationship with self-care agency in HIV/AID patients. The results of the study found that there was a positively significant relationship between hope and self-care agency at the .01 level (r = .295). The results showed that the samples with high hope would have good self-care agency, and this clause of hypothesis was therefore accepted.

Hypothesis 7 Symptom severity had a negative relationship with hope in HIV/ AIDS patients. The results of study found that there was a negatively significant relationship between symptom severity and hope at the .05 level (r = -.186), which showed that the samples with lower symptom severity would have greater hope over those with high symptom severity, and this hypothesis was accepted.

Hypothesis 8 Stigma perception had a negative relationship with hope in HIV/ AIDS patients. The results of the study found that there was a negative relationship between stigma perception and hope with statistical insignificance (r = -.115 p> .05), and this clause of hypothesis was therefore rejected. The details are shown in table 5.

Table 5. Pearson product moment correlation coefficient between age, educational level, symptom severity, stigma perception, hope, and self-care agency in HIV/AIDS patients (n = 180).

Variable	1	2	3	4	5	6
1. Age	1.000					
2. Educational level	.010	1.000				
3. Symptom severity	.133	.068*	1.000			
4. Stigma perception	.036	.159*	.182*	1.000		
5. Hope	-.046	.040	-.186*	-.115	1.000	
6. Self-care agency	.013	.281**	-.300**	.053	.295**	1.000

** p< .01 * p< .05

Additional analysis

From the research results, there were additional findings; that there was a positively significant relationship between educational level and stigma perception at the .05 level (r = .159), which showed that the samples with high education level would have greater stigma perception over those with lower educational level.

There was a positively significant relationship between symptom severity and stigma perception at the .05 level (r = .182), which showed that a sampling group with great symptom severity would have high stigma perception.

Comparing three subscales of stigma perception mean score by repeated measure ANOVA showed that at least a pair of subscale of stigma perception of the samples had significant difference at F (2,358) = 66.42 p< .00 (Table 6). In making an even

comparison of stigma perception (the mean score in each subscale was calculated by Student–Newman–Keuls Test), it was found that the mean score of stigma perception from community of the samples was higher than the mean scores of stigma perception from family and health team personnel with statistical significance ($p < .05$). Also stigma perception from family had mean score higher than that of the health team personnel and was statistically insignificant ($p > .05$).

Table 6. Comparison of three subscales of stigma perception mean scores by using Repeated measure ANOVA (n = 180).

Source of Variation	SS	df	MS	F	P
Between subjects	75.21	179			
Stigma perception	14.97	2	7.48	66.42	0.00
Error	40.34	358			
Total	130.52	539			

When comparing to three subscales of hope mean score by repeated measure ANOVA, it was found that at least a pair of subscale of hope has significant difference at $F(2,358) = 29.02$ $p < .00$ (Table 7). In making an even comparison of mean scores in each subscale of hope by using Student-Newman-Keuls Test, it was found that the mean score of hope in the interconnectedness with self and others subscale was higher than the inner sense of temporality and future and the inner positive readiness and expectancy. It was statistically significant ($p < .05$). The inner sense of temporality and future had a mean

score higher than that of the inner positive readiness and expectancy and was statistically insignificant (p> .05).

Table 7. Comparison of three subscales of hope mean scores by using Repeated measure ANOVA (n = 180).

Source of Variation	SS	df	MS	F	P
Between Subjects	104.43	179			
Hope	6.85	2	3.42	29.02	0.00
Error	42.24	358			
Total	153.52	539			

When comparing three subscales of self-care agency in the samples by using repeated measure ANOVA, it was found that at least a pair of subscale of self-care agency had significant difference at $F(2,358) = 8.73$ $p< 0.00$ (Table 8). In making an even comparison of self-care agency, the mean score in each subscale by Student-Newman-Keuls Test, it was found that the mean score of health deviation self-care requisites was higher than the mean score of development and universal self-care requisites, which was statistically significant ($p <.05$). While development self-care requisites had a mean score higher than universal self-care requisites which were statistically insignificant ($p >.05$).

Table 8. Comparison of three subscales of self-care agency mean score by using Repeated measure ANOVA (n = 180).

Source of Variation	SS	df	MS	F	P
Between Subjects	45.94	179			
Self-care agency	1.29	2	0.64	8.73	0.00
Error	26.39	358			
Total	73.62	539			

CHAPTER V

DISCUSSION

The discussion is presented in the following order: characteristics of the samples, symptom severity, stigma perception, hope, self-care agency, the relationship between basic conditioning in terms of age, sex, educational level, symptom severity, stigma perception, hope, and self-care agency, the relationship between symptom severity, stigma perception, and hope in HIV/AIDS patients.

Characteristics of the Samples

The samples represented married, employed, previously employed HIV/AIDS patients, and included more males than females, i.e. 73.33 % male and 26.67 %female. This was similar to the study of Wongsabutr (1996) and Ounprasertpong (1997) whose findings on gender of HIV/AIDS patients were 78.6% and 77.4% male, and 21.4 % and 22.6% female, respectively. This is in line with the AIDS infection situation, which may be predominantly apparent in males. This situation might be derived from the preferences of Thai males who are likely to have pre-marital sexual relation with other females, particularly with prostitutes, thus having greater likelihood of infection. In this study, fewer females were found than in the study of Kaewsawang (1997) and Pongsomboon (1996), whose findings showed that females had a higher rate of infection, i.e. up to 41.8% and 32.5% respectively. This might be due to the samples on which the study was made, in which married and widowed groups had not been included, thus there were fewer females in this study.

The mean age of the samples was 33.5 years, which is close to those under the studies of Noimuenwai (1993) and Nantachaipan (1996), i.e. with an average age of 32.38 and 32.25 respectively. It is evident that most of the samples are within reproductive ages, thus giving a high trend and risk of HIV infection which is consistent with the AIDS Division report (1999: 5). Meantime the infected persons are within working age, and as such, the illness also causes economical impact toward themselves and the nation.

In terms of educational level of the samples, it was found that the mean length of education was equivalent to 8.62 years, which is close to compulsory education requirements, i.e. 9 years. Almost all samples, 99.45%, disclosed the infection condition to their spouses. Of these about 26.11% made the disclosure to their spouses alone; about 55.56% made the disclosure to their spouses and other family members, e.g. parents, relatives; about 17.78% disclosed to their spouses and the community, with the remaining 0.55% disclosing to no one. The major cause in making the disclosure to the individuals in the families and society, beyond disclosure to their spouses, can be put down to the appearance of symptoms which cannot be concealed. This is consistent with the study of Ounprasertpong (1997), whose findings showed that about 85.5% of AIDS infected persons made an infection disclosure to their families, spouses and relatives.

In terms of progress of the disease, most of the samples, about 74.44%, had progressed to category C, i.e. the extreme AIDS stage; next in line, about 22.78%, were classified in category B, i.e. symptoms related to AIDS, and about 2.78% were in category A, i.e. the asymptomatic stage. The study by Ounprasertpong (1997) in HIV/AIDS patients who received treatment at the outpatient department in

Bamrasnaradura Hospital in the same manner as this study, found that the figures for samples in category B were similar, i.e. 22.1%. In category A the number was highest, i.e. 40.9%, and next in line was the number in category C, i.e. 37.1% which differed from the findings of this research which reported the highest number in category C and the lowest number in category A.

A large difference was found in category A, which might be derived from the fact that in present slow economical condition throughout the country, several companies have closed and a large amount of unemployment. The populace within working ages, which has the highest number of reported HIV infection (Division of AIDS, 1999: 5) had migrated to their domiciles. It was expected that HIV infected persons would most likely be in category A, in which symptoms are not evident, and are mostly capable of carrying on their regular work. The other cause would be the fact that prior to the IMF era, the government had sufficient funds to support treatment by giving anti-virus drugs to infected persons, even when they were in category A, which showed no symptoms for treatment. During the IMF period and afterwards, treatment plans were changed. When receiving anti-virus drugs, the infected persons must bear their own costs while drug prices was very high. Therefore, of the infected persons in category A, only those who could bear drugs costs could receive treatment.

People who received no anti-virus drugs were advised to report every 6 months, or when irregular symptoms appeared. Infected persons in category A could receive advice on health care, proper actions and irregular symptoms. They were able to meet physicians from specific work units in Bamrasnaradura Hospital, and other government and private hospitals and private units and organizations. These organizations have been established widely to render assistance to infected persons,

both via telephone and self-visit consulting services, causing a decrease in the number of category A infected persons at the department. The number of infected persons in category C receiving treatment in the outpatient department has increased. This may be due to the fact that with the economic decline, infected persons whose progress of the disease was approaching the next stage, and those in category C who had earlier received treatment in private hospitals, now received treatment in government hospitals. Costs were cheaper and it is well known that Bamrasnaradura Hospital renders service for HIV/AIDS patients.

The samples are residing in all regions of the country, of which the domiciles and present addresses in the central region are highest, i.e. 65.56% and 87.78% respectively. The samples currently residing in Bangkok Metropolis accounted for the highest percentage, i.e. 39.44%, next in line is Nonthaburi, the location of data collection, accounted for 16.67%. Samples residing in other provinces who received treatment here, did so for the reason that they were afraid of other people becoming aware of their infections. This required continuous follow-up, because they relied on treatment, and the hospitals in their areas had no drugs. As such, the visits to the hospital would be appointed for continuing receipt of drugs (details are shown in Table 1 pp.68-69).

Symptom Severity

The findings of the study were that most of the samples had low level symptom severity (Mean = 0.54). Although most of the samples were in category C, the AIDS stage, perception of HIV/AIDS patients in symptom severity is low. This may be because current treatment progress can cure and control opportunistic

infectious diseases. This reduces complications interrupting well being, making them aware of the ability to handle their symptoms. As such, they feel less severity, and combined with good self-care, complication conditions are decreased. From such decrease of symptom severity, it was found that while most of the infected persons, i.e. 86.11%, visited the hospital for appointed examinations, only 10% approached the hospital due to symptom unstability.

Stigma Perception

The samples had a low level score on stigma perception in the total scale (Mean = 1.43), which showed that perceptions of social disgust of HIV/AIDS patients, appraised from the expected actions of spouses, relatives, communities and health team personnel was low (Table 3 pp.71). In comparison, the study results of Ounprasertpong conducted in 1997 (Mean = 1.64) showed that stigma perception scores in the study had decreased. This might be due to the widespread publication of AIDS related data, and information by various work units of the government and private sectors. Many media sources made their presentations more gently than those presented in the past, stressing harmonious living, providing love and care to the infected persons. Stronger public information about AIDS, preventive measures and taking care of the disease also increased, so the public had a better understanding of AIDS and living with infected persons, thus reducing anxiety and disgust. The other reason which caused less stigma perception might be due to the samples; up to 82.22% made no disclosure of their infection condition to the public and about 26.66% made no disclosure to the individuals in the families except their spouses. Thus individual

attitudes to infected persons in families and communities remains unchanged, so stigma perception scores would thus be in the low level.

Considering each subscale of stigma perception scores, the finding was that stigma perception from communities falls in the moderate level (Mean = 1.66), stigma perception from families (Mean = 1.32) and from health team personnel (Mean = 1.30) are in the low level. This differs from the study of Ounprasertpong (1997: 85), whose finding was that the mean score in the total scale falls in the medium level and each subscale means scores were higher than that of this study. This means that stigma perception from community and family were in the moderate level, of which mean scores were equivalent to 1.92 and 1.56 respectively. Mean scores from health team personnel were in the low level, i.e. 1.36. However, the arrangement of 3 subscale scores from lowest to highest was similar, i.e. stigma perception from community, family and health team personnel respectively.

In terms of stigma perception from the community, the study finding was that the mean score was in the medium level. When comparing the 3 subscale mean scores, it turned out that the mean score on stigma perception from community would be higher than the mean score on stigma perception from family and health team personnel. This is statistically significant, even if only 17.78% of the samples made infection condition disclosure to the communities, whereas about 99.45% made the disclosure to their spouses and 73.34% made the disclosure to other individuals in the families. The first cause might be that the family system of Thai society is concerned with greater love, care and consideration than those of the communities. Particularly, most of samples are in the urban societies of Bangkok and Nonthaburi, in which the relationship between nature, neighbors and colleagues is out of touch. Sympathy and

pity for the infected persons of the community were therefore less than within families. In particular, the attitude of communities toward the causes of AIDS infection which were incurred from sexual behavior deviating from social norms caused the lack of pity and sympathy for HIV infected persons.

This study result is consistent with Chapilman (1992: Abstract) whose finding was that most of the public had the feeling of putting more blame on AIDS patients who had been infected by their indiscriminate sexual relations. In contrast, they felt pity and sympathy for those who had been infected from blood due to illness and from medical instruments. This is consistent with the study of Hongwiwat (1994 cited by 1997: 50), whose finding was that AIDS patients were refused entry into groups, friends avoided them, and on taking part in charity activities, segregation and discrimination toward the patients occurred. For this research it was found that most of the patients kept their conditions secret owing to the reason that the communities would be disgusted by their condition. Those who disclosed their condition would do so because of the inability to cover visible symptoms. The additional finding from this study was that several infected persons were able to cover the infection, causing stigma perception from community scores to remain in the low level. However, the infected persons expected that if they disclosed their condition, reactions of disgust from the community would certainly be shown. This might result from the experiences they faced and the attitudes towards people infected with AIDS that previously existed.

Stigma perception from family. The finding was that this aspect had the next priority and a low mean score level. It showed that the perception of samples on their spouses and relatives disgust, is in the low level. Most of the samples disclosed

their infection condition owing to the fact that up to 45% of spouses in this study also had HIV/AIDS infection. Reactions of disgust from spouses was therefore minimal, which may also be a result of the love and relationship in the families. The individuals in the families have a better understanding of AIDS and the samples under this study have a low level of symptom severity. This study result is consistent with the study result of Ounprasertpong (1997: 88) whose finding was that levels of symptom severity had a positive relationship with stigma perception in HIV/AIDS patients.

However, in terms of a part of the families showing disgust and distancing themselves, HIV/AIDS patients showed their fright of the disease and the lack of knowledge and understanding of joint living with HIV infected persons. This is also consistent with the study of Charoenpattarapesat (1994: 2), who found that families have pity and sympathy, and 88% of them allow joint living. However, relationships with patients were invariably worse after the illness occurred. This is consistent with the study of Siripong (1994, cited by Ounprasertpong, 1997: 48) and others. In their findings, after the patient notified her family of AIDS infection, during her ailment she disgusted her spouse's sister and had to live in isolation, with no joint dining with the others. Her daughter was forbidden to stay close to her and finally was left alone and passed away lonely.

Stigma perception from health team personnel. It was found that there was a low mean score level. The minimum mean score (Mean = 1.30), when compared to other stigma perception subscales is lower than stigma perception from community score, and is statistically significant. This showed that most health team personnel have a better knowledge and understanding than the communities, but the mean score is less than stigma perception from families and is statistically

insignificant. In comparison with the study of Ounprasertpong (1997: 85), the finding was that in this study family and stigma perception from community were lowered, while health team personnel subscales were much more similar (Mean = 1.36). It is evident that although the knowledge of the disease is good, the negative attitude toward AIDS still remains and affects the action expressed by health team personnel to HIV/AIDS patients. This is consistent with the study of Suwisith (1997: 156) which found that HIV infected persons had experienced disgust from medical personnel when receiving service in the hospital in terms of expressing anger, unwillingness to care and improper infection prevention. This is also consistent with the study of Changsarn (1991: Abstract) on stigmatization of AIDS patients, which found that most nurses had a medium and high bias toward patients. This was expressed in the form of separating patients from societies and the appraisal of individuals based on value judgements linked to perceived deviational behavior. This caused increased stigma to homosexuals, prostitutes, male groups infected by prostitutes and drug addiction groups, resulting in the samples still having stigma perception from health team personnel.

Hope

The samples in this study have a high mean score level on the total scale of hope, equivalent to 36.91. When dividing the total score by the number of items of the questionnaire and finding the mean, the result was 3.08 points. This is consistent with the study of Kaewsawang (1997) on HIV infected persons and Wongsabutr (1996) on AIDS patients. As the samples had more hope, it was because the majority of the samples made the disclosure of their infected condition to spouses and individuals in

the families. At the same time, the spouses and family members had a better knowledge and understanding about AIDS from several media sources, as well as a good relationship at the beginning. As such, family members' responding actions received from spouses are expressed in bonding, love, attention, encouragement to each other, and no abandonment. Along with this, other individuals in the families are ready to assist in a physical and mental manner, provide financial support and supplement health care. This is consistent with this study, which found that the samples realized that the disgust from spouses and relatives was at a low level. This is also consistent with the study of Photicharoen (1995) whose finding was that married status and living as a spouse with others being aware of the infection, had a positive relationship with the hope of AIDS patients.

For the hope in each subscale of the 3 subscales, the finding was that the samples had the highest mean score of hope on interconnectedness with self and others (Mean = 3.24). Next in line was the subscale of inner sense of temporality and future (Mean = 3.01), and inner positive readiness and expectancy (Mean = 2.99) respectively. In comparing the mean score among the 3 aspects, it was found that hope on interconnectedness with self and others would be higher than the inner sense of temporality and future and the subscale of inner positive readiness and expectancy. This was statistically significant ($p < .05$). The inner sense of temporality and future would be higher than the aspect of inner positive readiness and expectancy and was statistically insignificant ($p > .05$).

In terms of the subscale of interconnectedness with self and others in a high level, the samples had hope on this subscale both in each subscale and each item, (Table 10 Appendix C). This might be due to hope, in this aspect, being the

recognition of interconnectedness and interdependence between themselves and other individuals and between themselves and their spirituality (Hearth, 1992: 1256). This could account for the fact that most HIV infected persons paid attention to the reaction of the people around them and maintained mental stability through religious belief. When infected persons are aware of the love and care they have received from people around them, e.g. spouses, family members are able to give love and care to those individuals, there is no feeling of loneliness. This increases the hope to live for those they love and care for. Infected persons still have faith in something like religious *dharma*; sacredness and merit to keep their minds peaceful, and create greater hope. Meanwhile, most of the samples endure their infection state and are aware that the most important thing that allows them to live longer, even when badly infected, is their deep inner strength. In this situation, the mean score of this item is the highest.

In terms of inner sense of temporality and future, mean scores of this subscale were next in order. A high level of samples had an optimistic outlook on life and had the highest score (Table 10 Appendix C). Following this was the belief that good things would occur each day and the attainment of goals and desired outcomes could still come true very soon, or in the future. However, future outcomes were perceived with greater insecurity (Herth 1992:1255). In terms of the high level of each item of hope, it might be because the samples are aware that there are numerous people who are also infected, and infection does not mean immediate loss of life, so they may live longer if proper self-care is made. Meanwhile, the illness makes them observe the love and care of people around them, so they have the will to continue good living, with the belief that due to medical progress, curing medicines may be discovered. For the hope under the item about feeling scared about their own future, it

was found to be in moderate level and has the lowest score amongst all questions. This might be due to the samples viewing their own future as uncertain, and even though they expect to meet a set outcome, they are still unsure whether or not they can control the illness. Some think about approaching death while others, even though they are not afraid of death, may be frightened of pain and torment, or feel disgust in their condition, which can reduce self-care ability. Hope in this item had the lowest score.

In terms of inner positive readiness and expectancy, mean scores were in the moderate and rather high level, but when compared with other aspects of hope had the lowest mean score. This subscale of hope is the feeling of confidence combined with the effort to take action to attain desired outcomes, including revival of positive memories of the past (Herth, 1992: 1256). From the study results, taking into consideration each item of this subscale of hope (Table 10 Appendix C), it was found that the items with high mean score would be the samples feeling that their lives have worth and are meaningful, as they still recall happy and joyful times in the past. With regards to high hope of the samples in these items, it might be due to most of the samples in this research having low symptom severity (Table 3 pp.71). They are within working age, capable of working and raising a family with the belief that they are still important to family members and society and if they are not available, family members would be in trouble. They are thus aware that life is still worthwhile which promotes hope and willpower. Recalling happy and joyful times gives them satisfaction, reducing the tension and worry they are facing. As such, most of the infected persons have hope in these items. For hope in the item in which the samples felt that their lives still had direction the score falls in the medium level, which might

be due to the fact that the samples trust that their lives will go on as originally expected.

Self-Care Agency

In the study results on HIV/AIDS patients' self-care agency, it was found that the samples had a high level mean score on self-care, whereas the mean score was equal to 45.77 from a score range of 20-60. In dividing the total score by the number of items of the questionnaire, it was found that the mean score was equivalent to 1.53. The health deviation self-care requisites had the highest score (Mean = 1.58), next was development self-care requisites (Mean = 1.48) and universal self-care requisites (Mean = 1.47) respectively (Table 3 pp.71). In comparing mean score between the 3 subscales, it was found that health deviation self-care requisites would be higher than development and universal self-care requisites, and was statistically significant ($p < .05$). However, the subscale of development self-care requisites was higher than universal self-care requisites, and was statistically insignificant ($p > .05$).

HIV/AIDS patients having high self-care agency might be due to the fact that most of the samples are adult, and they have received treatment and follow-up on their own. Their maximum goal is to prolong their lives and to live a happy and regular life. This increases attention to self-care and the search for data and information from useful sources. Currently there is a lot of public knowledge on AIDS and instructions on how to maintain good health from mass media and organizations in the public and private sectors. AIDS infected persons can look for self-care knowledge from various media by themselves, or make enquiries by phone. In particular, those who receive

examination and treatment at Bamrasnaradura Hospital obtain convenient service from the staff of its outpatient department of medicine. They are able to give advice on self-care and there are also nutrition personnel who provide a consultancy service, mainly to HIV/AIDS patients. This increases the opportunities for self-care agency development.

In the meantime, it is well-known to the infected persons that the hospital places emphasis on service to infected persons. Most users of the service are HIV/AIDS patients, but provision is also made for allowing the samples to disclose their condition to others. There are discussions and exchanges of experiences amongst patients, giving data and information to one another on both treatment and self-care. This group focus allows for better development of good self-care agency. Furthermore, from the study results, it was found that samples had symptom severity scores at a low level, which showed that the awareness of the health condition of most of the samples is good. This causes no obstruction to self- care agency. Most of the samples fall in category C who have had early experience of illness, increasing interest in self-care to prevent or control illness as well as to learn and to have greater knowledge and skill of self-care.

In considering self-care agency in each item (Table 9, Appendix C), it was found that most of the samples had good standards. They had the highest scores for keeping the body, mouth and teeth clean, and being cautious in preventing the acceptance of HIV. Following this, they were cautious about the spread of HIV, making regular checks on the illness or irregularity of physical health, and taking care of, managing or relieving the priority symptoms. This showed that the samples had knowledge and understanding of AIDS and paid attention to their health. In terms of

looking for appropriate activities for exercises, it was found that they were at a rather low level. Regular exercise for HIV/AIDS patients can reinforce immunity and physical strength (Coombs & Larson, 1994: 279). Therefore, the samples need support and encouragement in focussing on their physical state to reinforce immunity and slow down the progress of the disease.

The Relationship between Basic Conditioning Factors and Self-Care Agency in HIV/AIDS Patients

Age: The study results indicated that age was not significantly related to self-care agency ($r = .013$ $p > .05$). This is consistent with the study of Warralukkanakul (1992: 64) in cancer patients receiving chemotherapy, and the study of Boonyaleepan et al. (1997: 31), amongst others, in AIDS infected persons. However, it is inconsistent with the study of Amaraphibal (1993: Abstract) in AIDS patients, and the study of Tungjaroen (1991: 49) in prostitutes. From the study results it is apparent that personal self-care agency will slowly increase with age, peaking at adult age and decreasing on approaching old age (Orem, 1991: 117). While most of the samples are in the working or adult age, with a mean age of 33.56, good self-care ability is present. No relationship between age and self-care agency was found.

Sex: There was no significant relationship between sex and self-care agency ($\chi^2_{.393,\,1} = .531$) (Table 4 pp. 73). It showed that male and female self-care agency is similar, which might be due to the married status of the samples. From the study results on stigma perception, it was found that most of the spouses had not abandoned them and they still lived with each other after making the disclosure of AIDS infection. The infection outcome did not only affect the infected persons but also

affected the spouses, both physically and mentally, i.e. they were HIV infected as well (approximately 45%), which would have an impact on emotion, society and economy. Under the same situation, it will cause the spouses to assist and care each other. Self-care agency is therefore similar, which is consistent with the study of patients in the other groups, which also found that sex is not related to self-care agency. Examples of this are head and throat cancer patients during and after radiotherapy (Takviriyanun, 1991: 52), and end-stage renal disease patients (Phichaikul, 1990: 36). However, it is inconsistent with the study of Boonyaleepan et al. (1997: 31), who found that female AIDS patients had higher self-care agency than males. Conversely, males had higher self-care agency than females in chronic obstructive pulmonary diseases (Intaraksa, 1991: 33; Uckanit, 1991: 34), which was also apparent in elderly persons (Panawatanakul, 1991: 34).

Educational Level: There was a positively significant relationship between educational level and self-care agency ($r = .281$ $p < .01$), which showed that the samples with high education had better self-care agency than groups with lower education. As education results in personal growth, learning ability data-information, and learning about diseases and good treatment plans (Orem, 1985: 175), HIV/AIDS patients with a high education have the skills in looking for knowledge or acknowledging information related to health and illness. They are capable of making enquiries, understanding treatment plans, seeing benefits from various sources, making proper decisions and acting on them, than those with a lower educational level. The falling relationship in lower levels might be due to awareness of the public and private sectors in giving data-information. The provision of widespread support and promotion of self-care in HIV/AIDS patients, as well as easier access to services

would result in infected persons paying greater attention to self-care. People with lower education levels ought to be able to develop their self-care agency to a level similar to that of persons with a high education level. This result is consistent with the study of Amaraphibal (1993: B) in AIDS patients, and the study of Thungjaroen (1991: 49) in prostitutes. However, it is inconsistent with the study of Laoankha (1997: B) in HIV infected persons, the study of Warralukkanakul (1992: 64) in cancer patients receiving chemotherapy, and the study of Boonyaleepan et al. (1997: 32) in AIDS patients.

Symptom severity: Symptom severity had a negatively significant relationship with self-care agency ($r = -.300$ $p<.05$), which showed that HIV/AIDS patients with lower symptom severity could have better self-care agency than patients with high symptom severity. This might be due to symptoms as indicators of health condition or self-care agency of the person. When health condition varies it can cause limitations in the ability to decide, and in the use of reason and self-care (Orem, 1991: 117, 120). As HIV/AIDS patients feel that their health condition has weakened or the illness has strongly threatened their lives and welfare, they will feel dejected, and discouraged in making decisions and taking action of benefit to themselves (Pender, 1987: 64). When symptom severity gets stronger, this will lower self-care motivation in which operation capabilities also decrease. The study results indicated that there is a low relationship, which might be due to most of the samples having low symptom severity. The study result is consistent with the study of Nantachaipan (1996: 186), who found that HIV/AIDS patients with high symptoms have lower self-care agency, particularly in the capabilities required for self-care operation. As such, self-care was non-continuous, which was consistent with studies of various groups of patients.

Examples of these include patients with chronic obstructive pulmonary disease (Chaitiamwong, 1992: 50) and breast cancer patient receiving chemotherapy (Chotanakarn, 1996: 108), in whom it was found that symptom severity was negatively related to self-care. For colorectal and anal cancer patients (Jirajarus, 1996: 114), it was found that health condition had an influence on self-care behavior.

The Relationship between Stigma Perception and Self-Care Agency in HIV/AIDS Patients

This study found that there was no significant relationship between stigma perception and self-care agency ($r = .053$ $p > .05$). This might be due to the low level of samples on stigma perception, particularly the lowest stigma perception from the spouses, as up to 99.45% of the samples made the disclosure to their spouses. The spouses would still bond with love and sympathy, undertaking the severity of the illness, so that samples received assistance and support in both emotion and self-care action. Together with the publicity of AIDS, self-care data, information of different media at all levels, access to information can be made without disclosing the infection condition. This results in self-care agency of HIV/AIDS patients being close in level with the samples who have a high level of stigma perception may not receive hospital treatment.

The Relationship between Hope and Self-Care Agency in HIV/AIDS Patients

The study finding was that hope had a positively significant relationship with self-care agency ($r = .295$ $p < .01$), which showed that HIV/AIDS patients with high

hope level could have good self-care agency. If the hope level is lower, self-care agency decreases. This is consistent with the study on HIV/AIDS patients which found that hope has a positively significant relationship with health-promoting behavior (Kaewsawang, 1997: A-B; Wongsabutr, 1996: E-F) and self-care behavior. This stems from the fact that hope creates motivation and finds a way for action to play a significant life role (Lynch, 1965 cited by McGee, 1984: 35-36). Within the hope of HIV infected persons there is motivation for them to act in accordance with expected needs, such as illness control or restoration of a balanced health condition. If HIV/AIDS patients feel helpless and hopeless, it is an obstacle to self-care agency. Hence HIV/AIDS patients with high hope have good self-care agency. Furthermore, other studies also found that hope still has a positively significant relationship with adaptation in lymphohemopoietic malignancy (Choowattanapakorn, 1988: 67-70) and in modified leukemic patients (Parnumasmonton, 1991: 74-77). Hope thus caused HIV/AIDS patients to finely adapt to their illness causing good self-care agency.

Meanwhile, the study results indicated that the relationship between hope and self-care agency was in the low level. This might be due to the inconstant hope of HIV/AIDS patients being subject to dynamic change in several dimensions (Duffualt & Martocchio, 1985: 380). However, other factors are involved, e.g. feeling of uncertainty about the future for both health and economic conditions, and panic about social disgust with increased symptom severity, causing feelings of hopelessness and helplessness in infected persons. Meanwhile, these factors may affect decision making ability in self-care actions, thus placing the relationship of both variables at the low level.

The Relationship between Symptom Severity, Stigma Perception, and Hope in HIV/AIDS Patients.

The findings of this study was that symptom severity had a negatively significant relationship with hope ($r = -.189$ $p < .05$) which showed that HIV/AIDS patients with high symptom severity had low levels of hope. However, if the symptoms were lower, hope level would be higher, which is consistent with the study of Weitz (1989 cited by Nantachaipan, 1996: 52-53). Weitz found that when AIDS patients had high symptom severity, they would have feelings of uncertainty about the illness and feelings of helplessness, thus losing willpower and motivation to do anything for themselves. In contrast those with few symptom changes would have the motivation to take care of themselves further. This is consistent with the study of Poticharaen (1995: Abstract), who found that strong current health had positive significance in relation to hope in the lives of AIDS patients. The relationship was, however, at a very low level, which might be due to other aspects related to the creation of hope. Examples of this are affirmation of worth, reflection on past actions, being a part of the health team, and getting care in the form of totality of the person (Cutcliffe, 1995: 885-895).

Concerning stigma perception, the finding was that there was a negatively insignificant relationship with hope ($r = -.115$ $p > .05$). This inconsistency with the established hypothesis might be because the majority of scores on stigma perception were at the low level resulting in good levels of hope. Hope was not only related to the reaction the infected persons received from others and there are other factors indicative of hope. Examples of these are optimistic inner perception that desired outcome would be realized soon or in the future, feelings of confidence combined with

effort needed to attain the desired outcome, recovery of positive memory from past experience and faith in various things (Herth, 1992: 1255-1256). These would effect the hope of the samples, thus the relationship was not found. The other cause might be due to the score of stigma perception towards the samples being low. However, HIV/AIDS patients expected that if disclosure of illness condition to society was made, they would be disgusted. Thus upto 82.22% made no disclosure to society and 26.11% made no disclosure to other individuals in the families except the spouses. Therefore stigma perception was low, but in the future if the condition could not be covered as a secret, stigma perception may be high or low. Infected persons then faced uncertainty, which resulted in no findings on the relationship of stigma perception and hope.

Limitation of the Study

1. In this data, samples with a high level of stigma perception and a low level of self-care agency may not receive hospital treatment, thus causing limitations to the data obtained for the analysis.

2. The questionnaires used in the data collection included numerous questions, which required about 30-45 minutes to respond to. They may have been boring for the samples affecting concentration in responding.

3. The samples had high symptom severity, such as severe headaches or very weak, were unable to respond to the questionnaires even by interview, they had to be excluded from this study (9 patients), which caused limitations to the data obtained.

CHAPTER VI

CONCLUSION

This research covered the study of the relationship between stigma perception, hope, and self-care agency in HIV/AIDS patients, along with a study of the basic conditioning factors expected to relate to self-care agency, i.e., sex, educational level, and symptom severity in HIV/AIDS patients. Orem's self-care theory was used as a conceptual framework for this study. The samples were HIV/AIDS patients who followed up their treatment in the outpatient department of medicine, Bamrasnaradura Hospital, from March to July, 1999, and totaling 180 cases. The subjects who were recruited to the study, were selected by purposive sampling based on the following inclusion criteria:

1. 18 years of age or over;
2. married, employed or previously employed;
3. HIV positive antibody, or judged by physicians to be HIV infected, who had been informed of the result for at least 8 weeks, at any stage of the disease;
4. good consciousness and ability to read or understand Thai language;
5. willingness to participate in the study.

The instruments used in the study were as follows:

1. The Demographic Data Form.
2. The Symptom Assessment Form of HIV/AIDS patients, designed by Nantachaipan (1996). The reliability of the instrument was examined and showed a Cronbach's alpha = .88.

3. The Self-Care Agency Assessment Form of HIV/AIDS Patients, designed by Nantachaipan (1996). The reliability of the instrument was examined and showed a Cronbach's alpha = .84.
4. The Herth Hope Index (HHI), designed by Herth (1992). This was translated into the Thai language and validated by 5 experts. After the Thai version of the HHI was modified according to the advice of the experts, the reliability of the instrument was tested in 30 HIV/AIDS patients and a Cronbach's alpha coefficient was .73 was found. When this instrument was used with 180 subjects in this study, the Cronbach's alpha coefficient was .78.
5. The Stigma Perception Scale, designed by Ounprasertpong (1997). The reliability of the instrument was examined and showed a Cronbach's alpha = .89.

Data was collected by interviewing the subjects about information related to demographic data, and symptom were assessed with the subjects according to the symptom severity assessment form. The self-care agency assessment form, the Herth Hope Index, and the stigma perception scale were answered by the subjects themselves. If the subject could not answer, they were interviewed following the assessment form. All data was analyzed using SPSS for Windows program, version 7.5.

The results of the study are presented as follows:

1. The majority of HIV/AIDS patients had a low level of symptom severity and stigma perception, and a high level of hope and self-care agency.

2. Age and stigma perception had no significant relationship with self-care agency (r = .013 and .053 respectively, p> .05).

3. Sex had no significant relationship with self-care agency ($\chi^2_{.393, 1} = .531$).

4. Educational level had a positively significant relationship with self-care agency at the .01 level (r = .281).

5. Symptom severity had a negatively significant relationship with self-care agency at the .01 level (r = -.300).

6. Hope had a positively significant relationship with self-care agency at the .01 level (r = .295).

7. Symptom severity had a negatively significant relationship with hope at the .05 level (r = -.186).

8. Stigma perception had a negative relationship with hope and was statistically insignificant (r = -.115 p> .05).

Recommendations

Nursing practice

The study results indicated that hope has a relationship with the self-care agency of HIV/AIDS patients. As such, nurses as health team personnel should actively work with the promotion of hope by allowing infected persons to have care in the form of totality of the person, and being a part of health team. This should be supported by instilling feelings of self-worth in infected persons. If HIV/AIDS infected persons are filled with hope, it will encourage maximum potential self-care agency development. In the meantime personal hope would effect dynamic changes and it is therefore necessary to take into consideration other factors affecting hope, e.g.

symptom severity, which the study found to have a negative relationship with hope and self-care agency. As such, infected persons must obtain care to reduce symptom severity by provision of proper treatment and care from early stages. This will help to delay disease progression, and during illness they should receive the maximum potential self-care advice, along with assistance from health services and family systems so the infected persons maintain hope and self-care.

Furthermore, the study found that infected persons with high educational level would have better self-care agency than those with lower educational levels. The nurse's role includes the development of knowledge and understanding of AIDS. It also includes the care and practice of self-care by infected persons who have low self-care agency, by providing a program which includes self-care knowledge and potential development for HIV/AIDS patients with low education levels, so they can develop self-care agency similar to patients with a high education level.

Nursing education

The study results indicated that stigma perception from health team personnel still existed. Therefore training to promote knowledge and understanding of AIDS and methods in promoting self-care agency of HIV/AIDS patients must be organized for nursing students. With this they can apply the knowledge to promote the self-care, ability development of HIV/AIDS patients by stressing on total member nursing, and the importance of various factors which are related to self-care agency. Examples of this include basic conditioning factors and hope, and promoting the realization of the importance of the fact that individuals are composed of body, mind, and social aspects. These cannot be divided for the benefit of assisting HIV/AIDS patients and

other chronic patients, and recognition and action in this respect can assist with the development of maximum potential self-care agency.

Nursing research

1. Qualitative research is needed to study the factors which enhance the hope of HIV/AIDS patients in various contexts, which can be used as guidelines in providing nursing service to infected persons.

2. Qualitative research should be conducted to study the methods needed to handle the illness of HIV/AIDS patients and other groups of chronic illness patients to reduce symptom severity. The study results would provide guidance in planning for nursing, to develop patient self-care agency and promote and maintain the hope of patients.

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APPENDIX A

Consent to Participate in Research Study

To whom it may concern

My name is Surang Tantiwinyupong. I am a Master's student in the program of Adult Nursing, Nursing Department, Faculty of Medicine, Ramathibodi Hospital, Mahidol University. I am conducting a study about the relationship between stigma perception, hope, and self-care agency in HIV/AID patients. This research may not be directly beneficial to you, but it will be beneficial for the improvement of nursing interventions for HIV/AID patients.

I would like to invite you to participate in this study. All questionnaires will take about 30 to 45 minutes to complete. Your decision will not any affect the quality of care to your patients. Anytime, if you change your mind, you can withdraw from the study. All the information I get will be kept confidential and will be used only to present as a group report. Your name will not be revealed in the report or in any other place.

Your decision to participate in this study will be greatly appreciated.

Sincerely yours,

Surang Tantiwinyupong

Master's nursing student

APPENDIX B

Questionnaires

Part I : The Demographic Data Form

Please check the appropriate response on the line or fill in the blank

1. Sex ( ) male ( ) female

2. Age ..... Years

3. Your maximum education level.
   ( ) None
   ( ) Primary education
   ( ) Secondary school
   ( ) Diploma / Certificate
   ( ) Bachelor
   ( ) Other .....

4. Domicile ..... Address .....

5. Who do you tell that you're infected with HIV
   ( ) Nobody
   ( ) Tell .....Husband, wife .....Child
   .....Father .....Mother
   .....Brother, sister .....Neighbor
   .....Colleague .....Other .....

6. The progress of disease
   ( ) Category A
   ( ) Category B
   ( ) Category C

7. This time, you come to check up because .....

Part II : The Symptom Assessment Form of HIV/AIDS patient

Direction: Please making check, do you have with or without these symptoms. If you had these symptoms, they would have severity more or few on each item of the following, please choose and mark the answers that best describes your symptoms. Please complete all of the questions. There are no right or wrong answers.

Symptom	No	Severity		
		Low	Moderate	High
1. Nausea / can't eat				
2. Wt. Loss or emaciated.				
3. White plaque on tongue or oral cavity.				
4. Mouth and tongue pain.				
5. Diarrhea.				
……				
……				
……				
……				
20. Papule / rash at the skin.				
21. Lymphadenopathy.				
22. Herpes Zoster				
23. Psoriasis				

Part III : Self-Care Agency Assessment Form of HIV/AIDS Patients

The following statements are described self-care agency on care. Please read each sentence carefully and place an [X] in the box that describes the mostly appropriate your operation.

Self-care operation	Agency level			Remark
	No	Sometime	Always	
1. Living in good ventilation.				
2. Avoid to close to who cough or have a cold.				
3. Set clean for the environmental living room.				
4. Prepare the food that you like and have good nutrient.				
……..				
……..				
……..				
……..				
27. Adapt yourself to infected condition or illness.				
28. Adjust your mind fully to depend on other people.				
29. Look for knowledge and information about HIV infection to take care yourself.				
30. Get in society and get responsibility in normal social activity.				

Part IV : The Herth Hope Index (HHI)

Listed below are a number of statements. Read each statement and place an [X] in the box that describes how much you agree with that statement *right now*.

Question	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I have an optimistic look to life.				
2. I have short, intermediate, and/ or long range goals in my life.				
3. I feel all alone.				
4. I can see the light amongst darkness.				
5. I have a faith in something that gives me comfort.				
6. I feel scared about my future.				
7. I can recall happy/joyful times in the past.				
8. I have deep inner strength.				
9. I am able to give and receive love and caring.				
10. I have a sense of direction in my life.				
11. I believe that good things should occurred each day				
12. I feel my life has worth and meaning.				

Part V : The Stigma Perception Scale

Listed below are a number of statements. Read each statement and place an [X] in the box that describes how much you agree with that statement *right now*.

Question	Most true	Mostly true	Least true	Not true
1. My spouse responds disgust for my AIDS symptoms.				
2. Neighbors don't talk to me.				
3. Some members of my family don't want me to eat, drink or any activity with them.				
4. My spouse tries to avoid to close to or touch me.				
5. My spouse always takes care me since I'm sick.				
……				
……				
……				
27. The nurse makes a speed of sight that put down me.				
28. Nurse and other health personnel avoid to touch me.				
29. The doctor avoids to touch me.				

APPENDIX C

Table 9. Mean, standard deviation, and meaning of self-care agency each item

Self-care agency	Mean	SD	Meaning
1. Living in good ventilation.	1.41	0.69	High
2. Avoid to close to who cough or have a cold.	1.42	0.70	High
3. Set clean for the environmental living room.	1.77	0.44	High
4. Prepare the food that you like and have good nutrient.	1.42	0.70	High
5. Avoid eating wasted food, eg. putrid, fermented, uncooked.	1.58	0.65	High
6. Drink clean water at least 6-8 glasses/day.	1.51	0.69	High
7. Training for regular passing urine or defecating.	1.36	0.77	High
8. Looking for the proper activity or exercise.	0.98	0.75	Moderate
9. To get enough sleep.	1.43	0.71	High
10. Eating good food 3 times / day	1.42	0.68	High
11. Cleaning your body, mouth and teeth	1.80	0.47	High
11. Aware and prevent new HIV infection prostitute always use condoms when you have sex	1.80	0.52	High
13. Set a time for relaxation	1.07	0.68	Moderate
14. Keep good relation with your families or friends.	1.71	0.51	High
15. Review about your life.	1.45	0.62	High
16. Be careful about spreading HIV virus such as being caution of blood or serum from a wound. No sex as no condom.	1.79	0.53	High

Table 9. Mean, standard deviation, and meaning of self-care agency each item (continued).

Self-care agency	Mean	SD	Meaning
17. Be careful and prevent accident or any that be dangerous for your health and life.	1.72	0.62	HIgh
18. Always making check on illness or irregular of physical health.	1.76	0.53	High
19. Please contact the person who you can trust for help if necessity.	1.18	0.72	Moderate
20. Try to keep the same life that you have before infection.	1.73	0.55	High
21. Look for proper treatment when you are sick	1.69	0.51	High
22. Train yourself in proper cure for mental health problem such as relaxing for stress, anxiety, keep relaxed mind, try to change your interest in good thing or exercise.	1.33	0.65	High
23. Come to follow up and evaluate your treatment	1.67	0.56	High
24. Take care or manage or relieve your symptoms.	1.76	0.50	High
25. Stop drinking alcohol.	1.71	0.62	High
26. Try to make or look for will power for yourself.	1.62	0.60	High
27. Adapt yourself to infected condition or illness.	1.69	0.56	High
28. Adjust your mind fully to depend on other people.	1.12	0.80	Moderate
29. Look for knowledge and information about HIV infection to take care yourself.	1.61	0.63	High
30. Get in society and get responsibility in normal social activity	1.26	0.80	High

Table 10. Mean, standard deviation, and meaning of hope each item.

Hope	Mean	SD	Meaning
1. I have an optimistic look to life.	3.29	0.69	High
2. I have short, intermediate, and/or long range goals in my life.	3.12	0.77	High
3. I feel all alone.	3.03	0.93	High
4. I can see the light amongst darkness.	2.77	0.91	High
5. I have a faith in something that gives me comfort.	3.18	0.79	Moderate
6. I feel scared about my future.	2.45	1.02	High
7. I can recall happy/joyful times in the past.	3.02	0.90	High
8. I have deep inner strength.	3.39	0.62	High
9. I am able to give and receive love and caring.	3.33	0.65	High
10. I have a sense of direction in my life.	2.92	0.86	High
11. I believe that good things should occurred each day	3.17	0.77	High
12. I feel my life has worth and meaning.	3.23	0.85	High

Table 11. Mean, standard deviation, and meaning of stigma perception each item.

Stigma perception	Mean	SD	Meaning
1. My spouse respond dislike for my AIDS symptoms	1.35	0.70	Low
2. Neighbor don't talk to me.	1.44	0.77	Low
3. Some menber of my family don't want me to eat, drink or any aotivity with them.	1.37	0.65	Low
4. My spouse try to avoid to close to or touch me.	1.26	0.66	Low
5. My spouse always takes care me since I'm nick.	1.72	1.00	Moderate
6. I was cerdemn by my family.	1.29	0.64	Low
7. I have to stop my work when my celleague know that I was infected with HIV.	1.68	1.04	Moderate
8. Some members of my family turn away or not talk to me.	1.34	0.73	Low
9. I have to leave my home after my spouse & relatives knew my infection.	1.17	0.61	Low
10. My spouse abandon me when(s) he know about my infection.	1.17	0.58	Low
11. I was prevented to close to or hold a baby.	1.30	0.68	Low
12. Some of my family put down me by their sight and speed.	1.37	0.72	Low
13. Neighbor walk away from me when they know my infection or symptoms.	1.49	0.77	Low
14. Some of my family look me disgusted.	1.30	0.68	Low
15. My spouse treat me as if I was not in home.	1.18	0.60	Low
16. Neighbor always visit and will me.	2.58	1.09	Low

Table 11. Mean, standard deviation, and meaning of stigma perception each item (continued).

Stigma perception	Mean	SD	Meaning
17. The hospital autrorities make speech & sighth that to put down me.	1.33	0.65	Low
18. The salesperson dislike me to touch their food.	1.29	0.59	Low
19. The doctor, nurse and other authorities act with me different from other patient.	1.38	0.76	Low
20. Neighbor gossip about me.	1.64	0.87	Moderate
21. The salesperson refuse to make a sale for me.	1.16	0.47	Low
22. The doctor make speech that put down me.	1.25	0.62	Low
23. I'm still join social activity as normal, eg. eating, drinking, and other activities.	2.11	1.12	Moderate
24. Neighbor drive me out to live other place.	1.09	0.41	Low
25. My colleague shill talk work with me as before when they know about my infection.	2.14	1.15	Moderate
26. As I was admitted in hospital, the authority abandon not take care me because of dislike of me.	1.22	0.54	Low
27. The nurse make a speed of sight that put down me.	1.31	0.65	Low
28. Nurse and other authorities avoid to touch me.	1.37	0.73	Low
29. The doctor avoid to touch me.	1.24	0.58	Low

APPENDIX D

List of expert consulted on validation of the Herth Hope Index.

The content validity of questionnaire were determined by five consulting experts included

1. Professor Somchit Hanucharurnkul
   Department of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University.
2. Dr.Pikul Nantachaipan
   Faculty of Nursing, Chiang Mai University.
3. Associate Saipin Gasemgitvatana
   Faculty of Nursing, Sirirach Hospital, Mahidol University.
4. Associate Professor Boonmee Sathapatayavongs
   Faculty of Medicine, Ramathibodi Hospital, Mahidol University.
5. Assistant Professor Tana Nilchaikovit
   Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

BIOGRAPHY

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	Mahidol University, 1997-1999: Master of Nursing (Adult Nursing)
POSITION&OFFICE	1986-1993, Songklanakarin Hospital, Faculty of Nursing, Prince of Songkla University. Position : Nurse 5
	1993-Present, Lerdsin Hospital, Department of Medical Service, Ministry of Public Health. Position : Nurse 6