

**TRANSITION CONDITIONS RELATED TO HEALTH STATUS
AMONG BURN PATIENTS IN REHABILITATION PHASE**

URAIWAN BOONPHADH

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.....
Miss Uraiwan Boonphadh

Candidate

.....
Asst. Prof. Orapan Thosingha,

D.N.S.

Major advisor

.....
Asst. Prof. Usavadee Asdornwised,

Ph.D. (Nursing)

Co-advisor

.....
Lect. Ketsarin Utriyaprasit,

Ph.D. (Nursing)

Co-advisor

.....
Prof. Chomchark Chuntrasakul,

MD., FACS, FICS, FICA, FRCST

Co-advisor

.....
Assoc. Prof. Rassmidara Hoonsawat,

Ph. D.

Dean

Faculty of Graduate Studies

.....
Assoc. Prof. Fongcum Tilokskulchai,

Ph.D. (Nursing)

Chair

Master of Nursing Science

Faculty of Nursing

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on
February 18, 2005

.....
Miss Uraiwan Boonphadh
Candidate

.....
Assoc. Prof. Fongcum Tilokskulchai,
Ph.D. (Nursing)
Member

.....
Asst. Prof. Orapan Thosingha,
D.N.S.
Chair

.....
Prof. Chomchark Chuntrasakul,
MD., FACS, FICS, FICA, FRCST
Member

.....
Asst. Prof. Usavadee Asdornwised,
Ph.D. (Nursing)
Member

.....
Gp. Capt. Anantchai Dejamornthan
M.D., F.R.C.S.(T), F.I.C.S., F.I.M.S.
Member

.....
Lect. Ketsarin Utriyaprasit,
Ph.D. (Nursing)
Member

.....
Assoc. Prof. Rassmidara Hoonsawat,
Ph. D.
Dean
Faculty of Graduate Studies
Mahidol University

.....
Assoc. Prof. Kobkul Phancharoenworakul,
Ph.D. (Nursing)
Dean
Faculty of Nursing
Mahidol University

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Uraiwan Boonphadh

TRANSITION CONDITIONS RELATED TO HEALTH STATUS AMONG BURN PATIENTS IN REHABILITATION PHASE

URAIWAN BOONPHADH 4536823 NSAN / M

M.N.S. (ADULT NURSING)

**THESIS ADVISORS: ORAPAN THOSINGHA, D.N.S.,
USAVADEE ASDORNWISED, Ph.D., KETSARIN UTRIYAPRASIT, Ph.D.,
CHOMCHARK CHUNTRASAKUL, MD., FACS, FICS, FICA, FRCST****ABSTRACT**

This descriptive research was done in order to study health status of burn patients and transition conditions related to health status of burn patients in rehabilitation phase. The samples of this study suffered moderate to severe burn injuries not more than 2 years ago and regularly visit physicians as appointed. The data were collected from samples at Out Patient Department or Burn Unit of Siriraj Hospital, Bangkok Metropolitan Administration Medical College and Vajira Hospital, Nopparatrajathane Hospital, Bhumibhol Adulyadej Hospital, and one hospital located in provincial area, which was Ratchaburi Hospital. In total, 96 samples were interviewed during January to September 2004. The research instruments used to collect the data were Demographic Data Questionnaire, Rosenberg Self-Esteem Scale, Social Support Questionnaire, and Burn Specific Health Scale-Brief. The data were statistically analyzed using descriptive statistics and Pearson's Product Moment Correlation coefficients.

The study revealed that the majority of the samples were male (67.7%) aged 21-40 years (mean = 37.16) married (58.3%) elementary school educated (41.7%) and less than 5,000 baht monthly income (45.8%). The most frequent cause of burn injury was flame (43.8%) and they occurred most frequently during occupational work (57.3%). The majority of patients suffered 1st level of impairment (40.6%). According to the correlation study, the level of impairment was found to have moderate-negative correlation with health status ($r = -0.414$, $p < 0.01$), self-esteem was found to have moderate-positive correlation with health status ($r = 0.570$, $p < 0.01$), and social support was found to have a low-positive correlation with health status, whilst monthly income showed no correlation with health status of burn patients.

It can be recommended that, in order to promote complete transition of burn patients, nurses should evaluate the readiness of patients and their families, promote self-esteem, evaluate the patients social network, provide patients with effective information, knowledge and skill for self care, which will promote good health status for the patients.

**KEY WORDS: TRANSITION/ SELF-ESTEEM/ SOCIAL SUPPORT/ BURN
SPECIFIC HEALTH SCALE/ BURN PATIENTS.**

ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ

(TRANSITION CONDITIONS RELATED TO HEALTH STATUS AMONG BURN PATIENTS IN REHABILITATION PHASE)

อุไรวรรณ บุญพัฒน์ 4536823 NSAN / M

พย.ม. (การพยาบาลผู้ใหญ่)

คณะกรรมการควบคุมวิทยานิพนธ์: อรพรรณ โตสิงห์, พย.ค., อุษาวดี อัครวิเศษ, Ph.D., เกศรินทร์ อุทธิยะประสิทธิ์, Ph.D., จอมจักร จันทรสกุล, M.D., FACS, FICS, FICA, FRCST

บทคัดย่อ

การศึกษานี้เป็นการวิจัยเชิงบรรยาย เพื่อศึกษาภาวะสุขภาพของผู้ป่วยแผลไหม้ และปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ กลุ่มตัวอย่างเป็นผู้ป่วยแผลไหม้ในระดับปานกลางและรุนแรง มีระยะเวลาการเจ็บป่วยไม่เกิน 2 ปี และมารับการตรวจรักษาตามแพทย์นัด ที่หอผู้ป่วยแผลไหม้ หรือตึกผู้ป่วยนอก โรงพยาบาลศิริราช โรงพยาบาลนพรัตนราชธานี โรงพยาบาลภูมิพลอดุลยเดช วิทยาลัยแพทยศาสตร์กรุงเทพมหานครและวชิรพยาบาล และโรงพยาบาลราชบุรี จำนวนทั้งสิ้น 96 ราย เก็บข้อมูลระหว่างเดือนมกราคม – พฤศจิกายน 2547 โดยวิธีการสัมภาษณ์ เครื่องมือที่ใช้ในการเก็บข้อมูลประกอบด้วย แบบบันทึกข้อมูลส่วนบุคคล แบบวัดความรู้สึที่มีคุณค่าในตนเอง แบบวัดการสนับสนุนทางสังคม และแบบวัดภาวะสุขภาพ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและสัมประสิทธิ์สหสัมพันธ์เพียร์สัน

ผลการศึกษาพบว่า กลุ่มตัวอย่างส่วนใหญ่เป็นเพศชาย (67.7%) มีอายุระหว่าง 21-40 ปี(mean=37.16) สถานภาพสมรสคู่ (58.3%) การศึกษาระดับประถมศึกษา (41.7%) มีรายได้น้อยกว่า 5,000 บาท (45.8%) สาเหตุของการเกิดอุบัติเหตุแผลไหม้ที่พบมากที่สุด คือ จากเปลวไฟ (43.8%) และมักจะเกิดขึ้นจากการปฏิบัติงาน (57.3%) ผู้ป่วยส่วนใหญ่จะมีระดับความพิการในระดับ 1 (40.6%) และพบว่า ระดับความพิการความสัมพันธ์ทางลบกับภาวะสุขภาพในระดับปานกลาง ($r = -.414, p < .01$) ความรู้สึที่มีคุณค่าในตนเองมีความสัมพันธ์ทางบวกกับภาวะสุขภาพในระดับปานกลาง ($r = .570, p < .01$) และการสนับสนุนทางสังคมมีความสัมพันธ์ทางบวกกับภาวะสุขภาพในระดับต่ำ ($r = .352, p < .01$) ในขณะที่รายได้ไม่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้

จากผลการวิจัยมีข้อเสนอแนะว่า ในการส่งเสริมให้การเปลี่ยนผ่านของผู้ป่วยเป็นไปได้อย่างสมบูรณ์พยาบาลควรประเมินความพร้อมของผู้ป่วย ส่งเสริมความรู้สึที่มีคุณค่าในตนเอง ประเมินเครือข่ายทางสังคมของผู้ป่วย เน้นการให้ข้อมูล ความรู้และทักษะในการดูแลตนเองแก่ ผู้ป่วยอย่างมีประสิทธิภาพ ซึ่งจะส่งผลดีต่อสุขภาพของผู้ป่วย

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CHAPTER 1

INTRODUCTION

Background and Significance of the Study

Burn accidents either caused by flame, hot liquid, electric shock, or chemical agents could occur at anytime, especially in the present world where there is the highly growing of science technology. There are many people faced with unexpected burn injuries and its consequences such as suffering from pain, permanent damage of skin, severe disability, or dying. According to the report of Public Health Information Center, Department of Policy and Public Health Plan, Ministry of Health, the number of death caused by fire from 1997-2001 was 223, 135, 187, and 208 and in term of mortality rate per 100,000 population was 0.4, 0.2, 0.3, and 0.3 respectively. This is considered as low mortality rate if it is compared with the total numbers of people injured by burn injuries (more than 20,000 persons/year). This might be due to the advance of medical technologies that have increased the survival rate. However, the survivals would have lived their lives with the remaining problems (Crome, Holavanahalli, Kowalske & Helm, 2002; Williams, Doctor, Patterson & Gibran, 2003) such as burn scar lesions and joint deformities from scar contracture. Even though the technology of medical treatment is very advance in the management of fluid balance and infection control, but the management of scar lesion and deformities are still in the premature stage and the outcomes of care are not very successful (Warden, 1993). It can only restore the partial functions of people but cannot however clear up the disfigurement of all burn lesions (Thosingha, 2000). In a study done by Sinsuesatkul (1993) and Thosingha (2000) it was found that the patients who had severe burn more than 30% of total bodily space mostly would have deformities. It would take long time for them to recover and to treat the defects. Some patients did not have enough money to pay for the cost of plastic surgery, they have no other choice but living with the defects which have long term effect on their health.

Upon the severe burn injury, patients would suffer a lot of complications caused by excessive scar during healing process (Greenhalgh & Staley, 1994). Almost all patients suffered pain and itchy at the burn scar area which interrupt their sleep (Sisalab, 1997; Subongkosh, 2003). The patients who suffer large area of burn cannot withstand extremely hot or cold condition or cannot normally sweat (Thosingha, 2000). In case of burn wound that involves joints, the wound contraction would decrease the range of motion. If the musculoskeletal region is totally destroyed, usually from high voltage burn, organ amputation maybe conducted to save patients' lives. As the consequences, some patients cannot return to carry on their occupation due to the impairment. According to previous studies, the majority of severe burn patients were of the age between 21-40 years old. This group was the main work force work to support their families and communities (Chaiphosri, 1995; Sinsuesatkul, 1993; Sisalab, 1997; Subongkosh, 2003; Thosingha, 2000). Burn injury has therefore strong effect on the patient occupation after hospitalization in the magnitude that they may not return to work anymore (Thosingha, 2000). Most of the burn patients were willing to work. However, the long-time treatment, which caused long-time off duty, restricts them from returning to former work (Gilboa, 2001). The patients would be in deep sorrow since they cannot carry out their career. For burn patient who suffer severe impairment such as hand burn, amputation above elbow or knee, necessity to depends on family member or caregiver assistance for activities of daily living are high. As a consequence the patients would loss their control in life, loss their faith and hope and feels like a burden for their family member (Shearn & Engleman, 1984; Sinsuesatkul, 1993). Patient has no confidence to return to social and to his/her roles as family leader, husband, wife, father, or mother. As a consequence, role conflict occurs.

Some patients who suffer from severe burn injuries tend to suffer their noticeable psychological problems i.e. worry, wrath, anxiety and depression, these symptoms would be more serious and lead to psychiatric disorder (Mateu & Hernandez, 1996). The patients who have scar or disfigurement could lose their confidence to control their life (Chaiphosri, 1995; Shearn & Engleman, 1984). In addition, the sexuality of burn patients in rehabilitation phase is also affected since they still have sexual desire but unable to have normal sexual intercourse due to joint contraction and mobility problem. As a result, the patients usually loss their sexual

ability confidence, shameful or worrying (Thosingha, 1989; Bianchi, 1997). They avoid having sexual intercourse or limit their sexual intercourse only to fulfill their couple's need.

From what has been illustrated earlier it might be concluded that burn patients confront with physical, psychological, emotional, social and living problems. Because of the burn their lives have changed and it has direct effect on their health status in various aspects, including heat sensitivity, affect, hand function, treatment regimens, work, sexuality, interpersonal relationship, simple ability, and body image (Blades, Mellis & Munster 1982; Munster, Horowitz & Tudahl, 1987; Blalock, Bunker & DeVellis, 1994a; Kidal, Anderson, Fugl-Meyer, Lannerstam & Gerdin, 2001). Patients abilities to adapt themselves to accept their health condition differ from one to another depending on a variety of factors either personal factors, or environment factors.

Burn injury is unexpected and harmful. It causes continuous change of health status (Thosingha, 2000). The change starts from a person get burnt. The health status of the person has changed from healthy to injured leading to disability of body function and impairment. This process is considered as the transitional change of the person's state of health (Meleis, 2000: 12-28). If the person understands what conditional factors of the transition to new health status are and well prepare for the change as well as prevent themselves from negative effects during the transitional process the person will be easier to adjust him/herself to new state of health and body condition and to have positive effect towards his/her health. A study done by Thosingha (2000) found that the severe burn injured patients who were well prepared to have knowledge and skill to take care of their health were more successful at transferring themselves to state of returning to social after the discharge from hospital. In addition, they were more independent and were good at self-health care. They also had less complication than those who had routine care from health team.

According to information gained from literature review of various chronic illnesses and injuries, the investigator has found that the concept of transitional theory in these studies illustrates several factors which can be applied to study the health status of burn injured patients in rehabilitation phase. The factors are level of impairment, self-esteem, monthly incomes, and social support. A study carried out by Sumranbua (2001) found that the social support and patients' workability level had

correlated with holistic health of post cardiac valvular replacement patients. Both factors also studied by Leumcharoen (2002) and found the similar effects on larynxgectomees patients. Namasa(2002) studied brain injured patients and found that the severities of diseases and the length of post-symptom period were correlated with health status. In the same direction, a study done by Kromwangkon (2002) conducted in teenagers who have lost legs or arms proved that self-esteem and social support correlated to their health status. Burn patients in rehabilitation phase have similar health problems with those groups of people, hence the factors i.e. level of impairment, self-esteem, monthly incomes, and social support that correlated with health status should not be different.

As a consequence, the investigator is intending to explore whether or not the level of impairment, self-esteem, monthly incomes, and social support do have effect on the health status of burn injured patients in rehabilitation phase. The result of this study would assist health personals to better understand patient's problem. It will be beneficial to establish more appropriate nursing care for burn injured patients.

Research Questions

1. What is health status of burn patients in rehabilitation phase?
2. Do level of impairment, self-esteem, monthly incomes and social support correlate burn patients' health status during rehabilitation phase? If yes, how do they correlate?

Research Objectives

1. To study health status of burn patients in rehabilitation phase.
2. To study the correlation between the level of impairment, self-esteem, monthly incomes, social support and burn patients' health status in rehabilitation phase.

Conceptual Framework

Transition theory (Meleis, Sawyer, Im, Messias & Schumacher, 2000) has been implemented as a conceptual framework on this study. According to Meleis and colleague' (Chick & Meleis, 1986; Schumacher & Meleis, 1994; Meleis, et al, 2000)

they concluded that every individual always transit from one to the other phase of being either due to status of development or due to status of disease. In the same way, burnt patients health status transit from the first incident of illness, hospitalize to survive from disease and complication, reaching rehabilitation phase until back to normal life. Burnt patients must experience to these transits which are continuum (Thosingha , 2000).

According to transition theory (Meleis, Sawyer, Im, Messias & Schumacher, 2000), the various transition conditions are considered whether it promote or hinder the transition process at how large scale of impact. These conditions are personal, community and society related conditions. The relationships between experiencing transition theory and variables in this study can be explained by linking conceptual model with theoretical concept then with empirical indicator as described by Conceptual model-Theoretical concept-Empirical structure (Fawcett & Downs, 1986). In theory concept level, three transition theory concepts are considered, namely, Health/Illness transition, Transition conditions, and Pattern of response. For transition conditions, two factors are involved, namely, personal factor and community factor. According to previous works, personal factor of burn patients correspond to the following variables; level of impairment, self-esteem, and monthly incomes. These variables can be empirically indicated by American Medical Association's guide to the Evaluation of Permanent Impairment, Rosenberg Self-Esteem Scale, and monthly incomes, respectively. For community factor, social support is a corresponded variable. This variable can be empirically indicated by Social Support Questionnaire. For pattern of response, health status is a corresponded variable and can be empirically indicated by Burn Specific Health Scale-Brief. This conceptual framework is summarized and illustrated in figure 1.

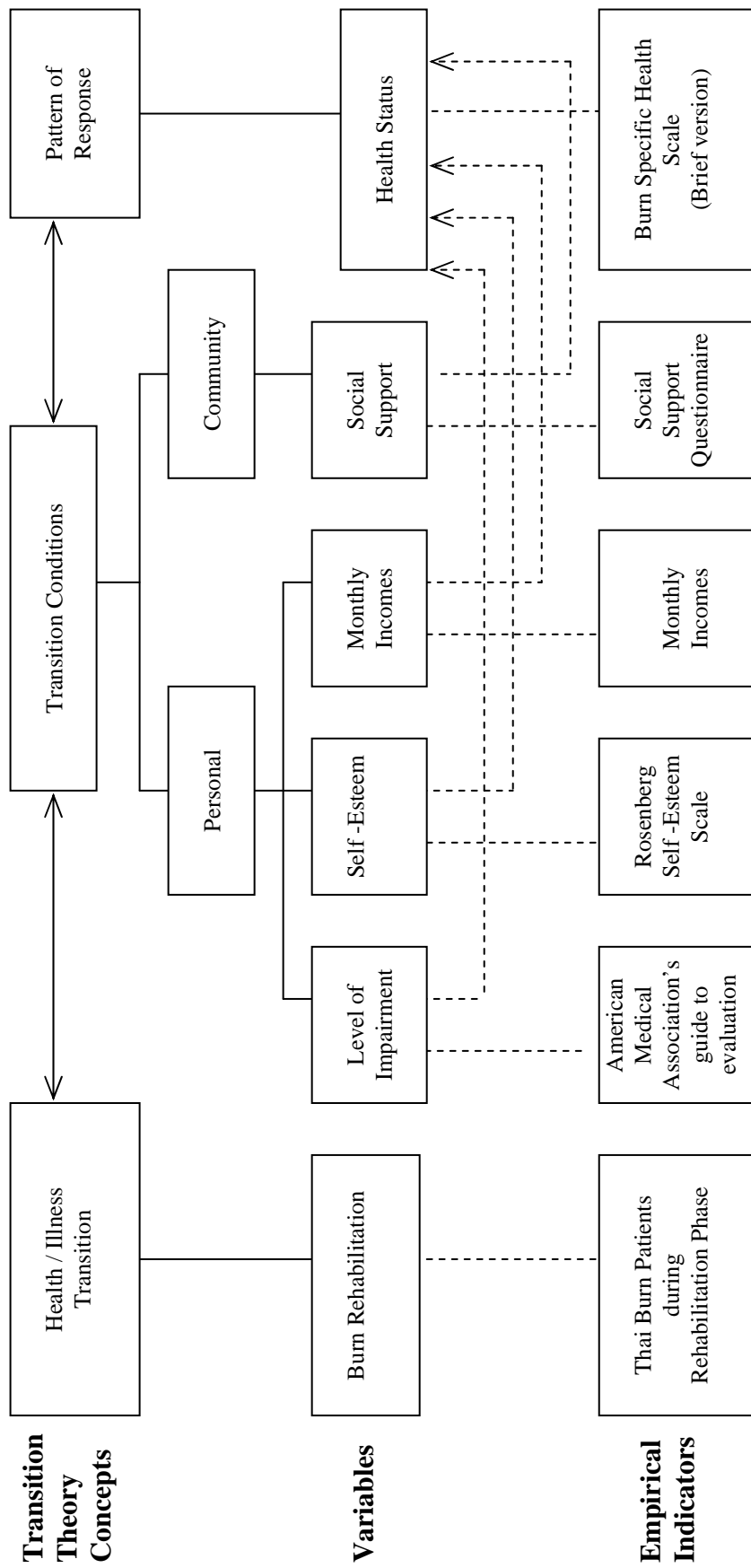


Figure 1 The Relationship in Transition Theory and Empirical Indicators (Utilizing the Conceptual – Theoretical – Empirical Structure Based on Fawcett & Downs, 1992)

Research Hypothesis

1. Self-esteem, monthly incomes, and social support have a positive correlation with the health status of burn patients in rehabilitation phase.
2. Level of impairment has a negative correlation with the health status of burn patients in rehabilitation phase.

Scope of the Study

This study aimed to examine the transition conditions such as level of impairment, self-esteem, monthly incomes, and social support that related to health status of burn patients in rehabilitation phase. The burn patients received treatment and follow up at burn units or out patient departments of four hospitals located in Bangkok Metropolis, including Siriraj Hospital, Bangkok Metropolitan Administration Medical College and Vajira Hospital, Nopparatrajathanee Hospital, Bhumibhol Adulyadej Hospital, and one hospital located in provincial area, which is Ratchaburi Hospital.

Benefit of the Research

1. To promote unique understanding and awareness among health care providers towards about how can level of impairment, self-esteem, monthly incomes, and social support be correlated with burn injured patients' health status at the phase of rehabilitation, as well as applying the research result to promoting the burn injured patients' health.
2. To provide guideline for family and social members in order to be aware of the factors that support burn injured patients at the phase of rehabilitation to reach their optimal health and aiming to encourage the members to participate in providing appropriate care to the patients, as well as to give sufficient supports to the patients both physical and psychosocial.
3. The research results can be guidance for further researches in other issues that are related to health status among burn patients.

Definition of Terms

1. Transition conditions refer to personal and environmental factors that facilitate or inhibit the outcomes of transitional process. These factors include;

1.1 Level of impairment refers to level of permanent damaged at any part of body after burn injury. In this study the level of impairment was evaluated based on American Medical Association's guide to the Evaluation of Permanent Impairment (1988).

1.2 Self-esteem refers to feelings of patient toward himself. These feelings consist of importance, capability, virtue and willpower. In this study self esteem was evaluated by self-esteem scale of Rosenberg (1965).

1.3 Monthly income refers to monthly incomes of burn patient which received from various sources for example, occupation, and family members.

1.4 Social support refers to perceiving of burn patient about emotional support (e.g. acceptance, love and care), appraisal support (to approve that he is a part of society), information support and instrument support (material, financial, or service support from person in his environment or social network). In this study social support was evaluated by using the assessment model of social support by House (1985).

2. Health status refers to health status of burn patient in rehabilitation phase, comprising of heat sensitivity, affect, hand function, treatment regimens, work, sexuality, interpersonal relationship, simple ability and body image. In this study health status was evaluated by Burn Specific Health Scale –Brief (Kildal, et al., 2001).

CHAPTER 2

LITERATURE REVIEW

In order to study transition conditions which relate to health status of burn patients in rehabilitation phase, many literatures were surveyed and reviewed which can be categorized as follows;

1. The profile of burn patients.
 - Burn incident in Thailand.
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1. The Profile of Burn Patients

Burn incident in Thailand

Burn injuries have occurred ever since the discovery of fire. As the population grew, the incidence of burn injuries increased rationally. The incidence of burn injuries in Thailand has been gradually increasing since 1991. As shown by the numbers of burn victims who came to the emergency rooms from 1991 to 1994, there were 28,362, 30,576, and 39, 663 patients respectively (Thai National Safety Council, 1996). Most of these patients could be treated at an out patient department, while patients who sustained burn injury with greater than 10-15 percents of the body required hospitalization (Thosingha, 2000). According to study, majority of burn patients aged between 21 to 40 years old (Chaiphosri, 1995; Chantrasakul, Seepakdee, Suwanchaoat & Thosingha, 1995; Sinsuesatkul, 1993; Sisalab, 1997; Subongkosh, 2003; Thosingha, 2000) people in this age are the main human resource for their family and country.

Burn injury frequently occurred due to occupational work accident. The burn injury accident took place in workplace rather than household, (Chantrasakul, et al, 1995; Sisalab, 1997; Thosingha, 2000) especially in small factory or construction site where safety measurements were neglected. (Thosingha, 2000). Burn injury were found in male rather than female since the male activities normally took higher risk compare with female, as a result, The severe case gender admitted in hospital were male in larger number than female(Sisalab, 1997). Female burn incident were found in household accident rather than workplace. (Thosingha, 2000)

Likewise, the incidence which were reported in other countries such as USA, Canada, the countries in Europe and other countries an Asia also stated that severe burn injuries that required hospitalization were found among young adult at age between 21-40 (Thosingha, 2000), severe burn were found more in male rather than female, and among these male the work accident involved case were of the highest category.

Patients' Health Status after Burn Injury

The survival rate of patients with massive burns during the past decade had increased following advances in fluid resuscitation, infection control, metabolic support, and wound management (Wisely & Tarrier, 2001; Xiao & Cai, 1995). Therefore burn patient in rehabilitation phase should be paid for more attention since burn injury cause change in patient life involving specific physical, social, emotional / psychological and resumption of daily activity. In order to study the health status of burn patient in rehabilitation phase, nine dimension of health outcome was set up in Burn Specific Health Scale-B (BSHS-B) which the related literature are reviewed as follows;

Simple Abilities: As the burn wound heals, the burn scar shrinks and becomes fixed and inelastic, resulting in contracture of wound. Once a contracture forms, the tissue resists being stretched and its inelasticity limits body movement. As a consequence, these changes usually bring up the problems in performing essential daily activity for example dressing, feeding, toileting, moving around in their residence. Even mild physical function change can lead to the problem of getting outside for social activities and works (Staley, Richard, Warden, Miller & Shuster, 1996). In addition, location of burn lesions is certainly associated with patients' physical functions. Especially, when burn lesion occur in dominant hand, the patients would have problem in performing daily living activity and have to depends on help from other(Howell, 1992). Amputation, particularly when this involves both arms at forearm level, is an obvious factor influencing the recovery of functional mobility (Xiao & Cai, 1995). It was reported that among various problems developed in burn patients, physiological problems which consequently effect physical functions were most frequently mentioned within the first 6 months after hospital discharge and they still persisted longer than 6 months (Blalock, Bunker, Moore, Foreman & Walsh, 1992)

Heat sensitivity: When the skin is subjected to burn injury, the sweat glands in the dermis are destroyed. Due to the destruction of the glands, loss of sweat glands can have serious consequence for the rehabilitation of burn injured patients. If a significant percentage of sweat glands are lost, the patients must rely on the remaining sweat glands for thermoregulation. Studies have shown that patients who have sustained a full-thickness burn to a significant percent of their body have a total sweat

production similar to subjects without burn injury (Lund, Onarheim & Reed, 1992 cited in Falkel, 1994). However, because the number of sweat glands is reduced with a full-thickness burn injury, the sweating rate is inefficient, with a concomitant rise in core temperature. The loss of sweat glands reduces the effective sweating area and decreases the thermal gradient between the core of the body and the skin. Due to the destruction of this gland, patients would have problem to withstand in a hot, humid environment. Hot and humid environment conditions do not allow the effective evaporation of sweat glands for thermoregulation. Consequently, burn patient with reduced sweat glands is further compromised by the lack of evaporative sweating, which results in an even greater rise in core temperature (Falkel, 1994). Thai burn patients also reported skin sensitivity and irritation as one of their concerns (Thosingha, & Seepakdee, 1996). Being a country that located near equator, Thailand usually gets very humid weather incorporate with very bright-heating sunshine almost throughout the year. This kind of atmosphere has an effect on the patients' delicate skin therefore; they will easily develop irritation (Thosingha, 2000).

Hand function: Although burn injury to the hands are not usually life-threatening and have minimal impact on overall patient survival, they can cause clipping deformities and physical disabilities that can destroy the patients' life (Umraw, Chan, Gomez, Cartotto & Fish, 2004; Ptacek, Patterson & Heimbach, 2002). The function of the hand depends upon stability, sensitivity, mobility, dexterity, and controllable power. This requires stable skin coverage, and adaptable skeletal framework, and gliding balance of multiple tendon/ muscular forces. The function of an individual is very depending on the use of their hands. The hand is a delicate balance of light touch and power grip, sensitivity versus strength. Loss of hand function negatively impact on occupation, activities of living, and self worth (Bostwick, 1987 cited in Mlakar & Dougherty, 2002). In the reintegration of burn patient who loss their hand function to their normal life, second or third degree burn injuries of hand need to be regarded as serious complication (Pallua, Künsebeck & Noah, 2003). Burn patients with significant hand burns will have some setbacks and delays in the course of their rehabilitation and retraining (Mlakar, 2002). As a consequence, timing of return to work and independent living have significant in

delaying return to full function (Tanttula, Vuola, Asko-Seljavaara, 1997; Hu, Wesson & Logsetty, 1994; Baker, Jones & Sanders, 1996)

Treatment Regimens: The patient with severe burns is frequently discharged from hospital when life-threatening complications are resolved and minimal wound areas remain open. During the initial weeks at home after discharging, patients usually continue to do their self-treatment, such as, extensive daily wound care, comply with the treatment regimen in regard to medication and use of pressure garment which prevent or reduce hypertrophic scar, and rehabilitation by physical therapy in order to maintain a normal range of joint motion. Although patient usually views the prospect of going home positively, the difficulties associated with physical care and psychological stresses associated with change in appearance, role, function, and life style are numerous and may overwhelm (Ignatavicius, Workman & Mishler, 1995). Some patients whose wound still persist and prefer to come for daily wound dressing at the hospital everyday until wound are completely healed, however, it is very difficult for burn patients who had very limited physical functions to travel back and forth from home to hospital everyday to obtain wound care, as a result, the patients need a travel companion who can assist them during traveling or can drive them to hospital. The patients may feel burden to such companion who must take their working time and/or expense with the patients frequently (Thosingha, 2000).

Work: The physical demand of a work has three components; strength, flexibility, and endurance. Additionally, specific work skills require gross or fine motor skill or both. For burn patients who possess remaining problems due to injury are subject to permanent physiological change or limitations such as burn scar lesions and joint deformities from scar contracture. These physiological change and limitation may pose potential barrier for successful return to work (Zeller, Sturm & Crese, 1993 cited in Leman & Ricks, 1994; Esselman, Ptacek, Kowalske, Cromes, deLateur & Engrav, 2001). Significant factors used to predict the length of time a burn patient remaining off work are the percent of total body surface area burned, depth of burn and whether the hands were involved (Bowden, Thomson & Prasad, 1989; Helm & Walker, 1992; Blalock, Bunker & DeVellis, 1994b). For some burn patients, the consequences from injury make them incapable for controlling their own destiny. According to the disfigurement, employers were more likely to refuse burn patients to

return to their previous work especially if the type of work is exposed to public or required much physical effort (Thosingha, 2000). Burn patients who wish to remain in their work therefore have to comply with their employer's request such as reducing the working hours, reducing the payment rate, decreasing work status (Helm & Walker, 1992)

Body image: A fundamental concept of burn injury is the resultant alteration in body image. Body image is the root of identity, self esteem, and self worth, the bases from which man functions (Wassner, 1982 cited in Whitehead, 1993). Body image involves the individual's mental perception of the body and is subject to constant redefinition in response to input received from vision, touch, proprioception, and the perception of others and their reactions (Henker, 1979 cited in Whitehead, 1993). The scarring, disfigurement, deformity, and loss of function that often result from a severe burn injury are likely to lead to significant perceptual and subjective body image change (Heinberg, 1996 cited in Blakeney, Fauerbach, Meyer & Thomas, 2002). Deformities or disfigurement of the face and other exposed area may be obvious sources of distress. Disfigurement of area such as the genitalia may be less apparent, but still highly relevant to body image satisfactions. Change in appearance or function may result in altered body image perception, a decrease in body image satisfactions and behavioral avoidance. The association of larger TBSA and facial involvement with body image dissatisfactions of adult survivors may represent in the influence of physical injury on psychological disturbance (Blakeney, et al., 2002). In a society that place high value on physical attractiveness and prowess, it is difficult to accept physical disability with its psychosocial overlay (Drench, 1994).

Affect: The skin can be psychologically identified as a boundary of unique human. The postulate that burn injury always creates psychological problems is generally accepted among burn professional. Although the burn wounds will be healed, psychological problems may persist or be aggravated by the gradual increase in deformity or disfigurement due to scar and contractures following of the burns. Suffering a serious burn involves a significant psychological impact upon patient who experiences it and each patient will react in their own way, depending on various factors. Some of those factors are; previous emotional state, personality, the ability to respond to new situations, the psychiatric condition, previous psychosocial adjustment,

the influence of the injury itself, including extension, severity, damaged areas and the existence of pain (Franulic, González, Trucco & Vallejos, 1996). The first year following discharge is usually the most difficult for burn patients, with most adjustment issues have to be accomplished after this time (Blades, Jones & Munster, 1979; William, Doctor, Patterson & Gibran, 2003). Several studies have shown that a large number of burn patients suffered with psychological problems such as anxiety and depression (Moss, Doctor, Patterson & Gibran, 1993; Partridge & Robinson, 1995). As the study of Pallua, et al. (2003) which found an increase in depression among patients with burn to areas of body normally exposed compared with patients having burns non-primarily visible. However, it also became clear that the degree of depression in patients having facial burn scar or scars to the hands was significantly higher (Chang & Herzog, 1976 cited in Pallua, et al., 2003; Williams & Griffiths, 1991).

Interpersonal Relationships: Burn patients deal not only with his/her physical change but also with society's built-in impression toward ones who have deviation from social standard. Public perception is the most prominent problem of burn patients because it influences patients' perception toward themselves (Thosingha, 2000). Meeting others who have not seen the burn scarring is no easy experience. The burn patients are likely to be received with a typical mixture of uncertainty and lack of experience by those him or her meet. In defining a group of psychosocial response terms, "SCARED" is an acronym which aptly sum up a set of familiar and unenviable responses that the patient emerging from the burns unit has to come to terms with: Staring, Curiosity, Anguish, Recoil, Embarrassment, Dread are some of term, but so is rudeness, giggling and name-calling. In confronting them, the patients may also feel "SCARED" and can become trapped in the double bind: Self-consciousness, Conspicuousness, Anger, Reluctance, Embarrassment and feeling Different (Partridge & Robinson, 1995). For burn patients who suffer disfigurement, it is particularly difficult to maintain an acceptable picture of themselves. Many patients with burns must constantly deal with the negative response of the public and must work all the time to maintain self respect and self esteem (Bernstein, O'Connell, & Chedekel, 1992). Consequently, they would isolate themselves from community since they are ashamed of their body image when the people in society show negative response to

visible burn scar. This attitude can be seen from movie industry, which has frequently characterized the evil person as being deformed and scar from burn (i.e. Batman, Phantom of the Opera, A nightmare on Elm Street) (Warden & Warner, 2002)

Sexuality: One of the most devastating consequences of a burn injury is the inevitable alteration in body image and subsequent challenge to one's self esteem. An individual's expression of sexuality remains inseparable from body image and self esteem. Human sexuality is a profound facet of the total personality, present in varying degrees from birth until death. Sexuality encompasses much more than sexuality activity or functioning. It provides for the entire range of human experience (Whitehead, 1993). Burn patients who suffered facial and pelvic burns can produce a sense of sexual damage (Kimmo, Jyrki & Sirpa, 1997). In Thai society, sexuality impact is one life aspect of burn patients which has been ignored. Since tradition, culture and value of Thai society consider the disclosure of sexual matter as taboo. However, the sexuality of burn patient is very important since the burn injury affect only their physical ability. They still have sexual desire but unable to have normal sexual intercourse due to joint contraction or mobility problem. Moreover, Kimmo, et al. reported finding of correlation between deep burns and a slight decrease in sexual activity. Patient with visible burn scars are significant impairment in the sexuality aspect (Pallua, et al., 2003).

In summary the patient after severe burn would have serious problem in daily live. These problems affect the health status and living of patients in long terms. As mentioned above, nine dimensions of health outcome were impacted from permanent physiological change and limitation as reported in many studies which also affect their health status and their return to normal life.

2. Transition Theory as related to Burn Patients

Basic Concepts of Transitional Theory

Transition is the passage from one state, condition, or place to another (Webster., 1981 cited in Schumacher & Meleis, 1994). Meleis (1975; 1985; 1986; 1991) proposed that transition concept is one of concept central to the discipline of nursing. They explained that nurse plays an important role to support patients during instability period precipitated by developmental, situational, or health status change.

Chick & Meleis (1986) developed transition theory using concept analysis. They defined the meaning of transition as a passage from one life phase, condition, or status to the other. They referred the terms “transition” as both process and outcome of person-environment interactions, which might involve more than one person and was embedded in the context and situation. They defined the characteristics of transition including “process” since transition has a sense of movement and passage, “disconnectedness” the disruption of linkage on which the person’s feeling of security depends, “perception” difference in perception of person of transition events may influence reaction and response to such events so making them less predictable, “awareness” a person must have some awareness of the changes that are occurring so he is said to be in transition phase, “patterns of response” these patterns of response arises out of the observable and non-observable behavior during process of transition which reflect intrapsychic structure and processes as well as those of the wider social cultural context. They proposed general structure of conceptual transition which consisted of three phases: entry, passage and exit. They discussed that the sequence of these phase was in variant, but the duration of each phase and associated degree of disruption were not, so, impediments to the passage could occur at any point, moreover, phase were more likely to merge into one another than to be discrete.

Meleis, et al. (2000) performed the conceptual analysis of transition from nursing perspective by extending and refining the previous study based on transition framework of Chick & Meleis (1986). Using an integrative concept analysis strategy, they integrated respective clinical and research experiences into theory and finally developed the middle-range theory which is the core theory applied in this work. The conceptual transition theory framework according to their work consisted of the following conceptual component (Figure 2)

1. Nature of transitions
2. Transition conditions
3. Patterns of response
4. Nursing therapeutics

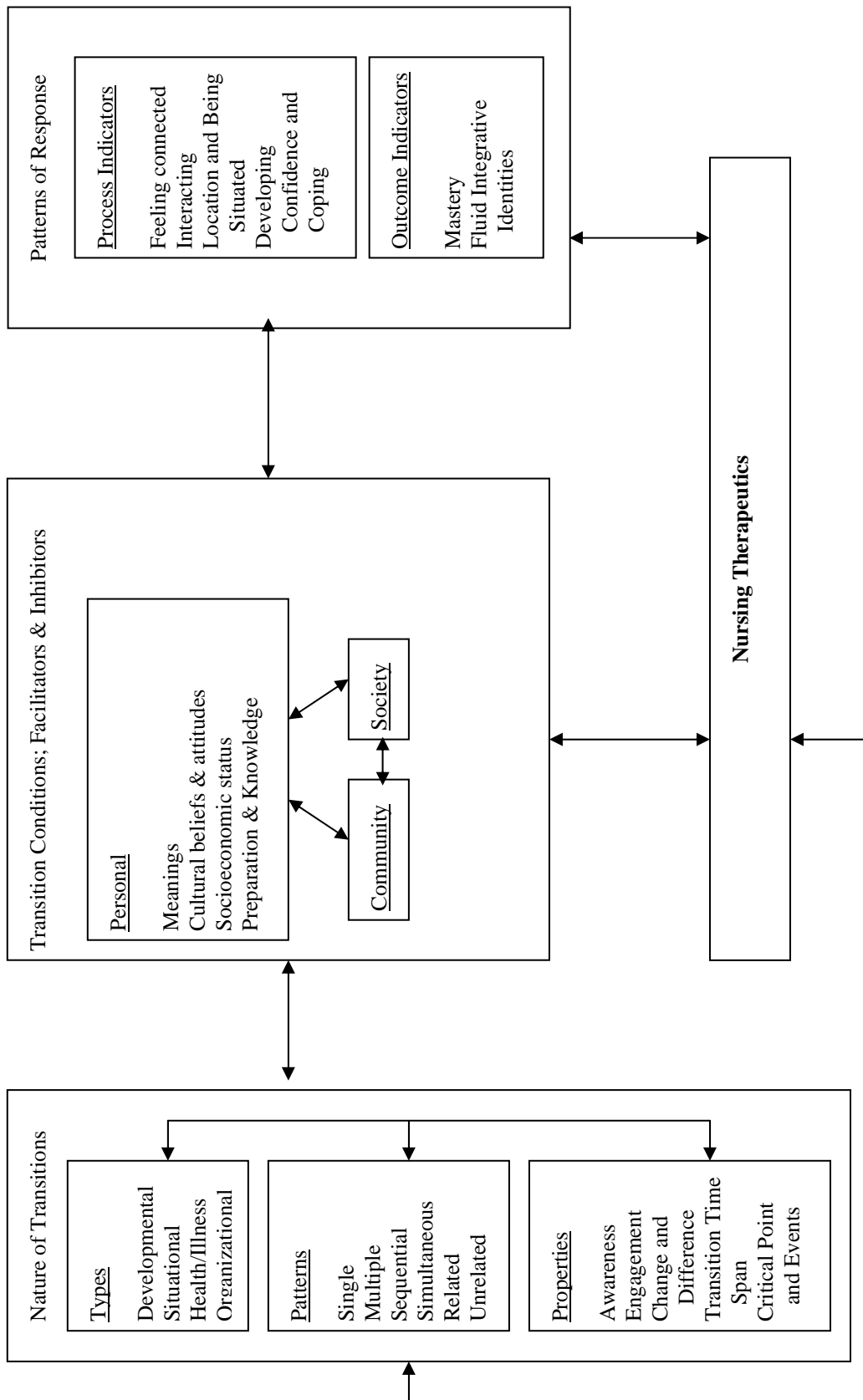


Figure 2 Transition: a middle-range theory (Meleis, et al., 2000)

Component 1: Nature of transitions

The nature of transitions could be characterized as type of transitions, patterns of transitions and properties of transitions

1.1 Types of transition, transitions could be identified into 4 types as follows;

1.1.1 Developmental transition was the transition of person according to age, maternity period or becoming a parent and menopause.

1.1.2 Situational transition was the transitions according to professional roles or educational and also various situations such as immigration, homelessness, near-death experiences or transition of an elderly family member from home to a nursing home.

1.1.3 Health / Illness transition was the transitions in relation with health or illness, for example, post-operation patients, getting into chronic illness, weaning from mechanical ventilation, transition in the process of recovery from critical illness, progression from tube feeding to oral nutrition, transition from hospitalization to home environment or rehabilitation center.

1.1.4 Organization transition: organization transition affected the lives of person work within them and their clients. The adoption of new policies, procedures, practices, structural reorganization, and change of incumbents in leadership position were also conceptualized as organization transition.

1.2 Patterns of transition

Transition was a complex process. Multiple transitions could occur to a person in the same or nearby time. The pattern of transition according to conceptual framework of Meleis, et al. (2000) might be single, simultaneous, multiple, sequential, related or unrelated.

1.3 Properties of transition

In order to distinguish transition from non-transitional change, properties of transition needed to be identified. Transition must be experienced by person, so he could have “awareness” property of such transition. During the transition there must be “level of engagement” in which a person demonstrated involvement in a process inherent in that transition, for example, seeking out information, using role models, actively preparing, and proactively preparing activities. The level of awareness

influenced the level of engagement in the way that engagement will not occur without awareness. Different person could have different level of acceptance to transitions. Transition involves change but not all change is related to transition. Person who can adapt and accept in transitions can feel “change and difference”. Change involving in transition might relate to personal familial or social norm, perceived importance or severity, related to critical or disequilibrating event, disruption in relationship and routines, or to idea, perception and identities. Difference could be exemplified by unmet or divergent expectation, feeling different or seeing the world and others in different ways. “Time span” was another property of transitions, since it took time for transition from one state to the other. Time span of transition must have identifiable end point, extending from the first signs of anticipation, perception or demonstration of change through a period of instability, confusion and distress to an eventual ending with a new beginning or period of stability. One commonality of transition was the experience of some “critical points and events” which often associated with increasing awareness of change or difference or more active engagement. In addition, there were final critical points, which were characterized by a sense of stabilization in new routines, skill, lifestyles, and self-care activities.

Component 2: Transition conditions

Meleis, et al. (2000) proposed to use transition conditions as framework to evaluate person, family or organization to gain insight in transition experience in order to be able to predict the transition which would take place either easy going or struggle on the way. These conditions could be conceptualized as follows;

2.1 Personal condition consist of personal character as follows; (Meleis, et al., 2000)

2.1.1 Meaning; is the personal interpretation of transition process and personal evaluation of transition outcome in terms of the effect to personal life whether positive, negative or neutral. This interpretation and evaluation to get a meaning often correlated to former experience of such person. So the people would give different meaning under the same situation.

2.1.2 Cultural beliefs & attitudes; In each social context, cultural belief and attitude will have strong effect to personal transition. If cultural belief view that transition as shameful, the person in transition would be subject to stress, distress and difficult during transition. For example cultural beliefs & attitudes of menopause transition for woman are different in each social context.

2.1.3 Socioeconomic status; Meleis, et al. (2000) believed that this condition would have effect to personal transition. The person who was in high socioeconomic status would gain better experience in transition than the lower one.

2.1.4 Preparation & Knowledge; self-management knowledge and anticipatory preparation would promote people to achieve a completely positive transition experience. Stress and other negative experience would therefore be eased.

2.2 Community condition; is the external conditions which may facilitate or inhibit to transition experience of person. The facilitator includes community resource support, family support, spouse support, or similar group support. This support facilitate personal transition but distrustful in community members would inhibit the transitions. Lack of positive communities support or presence of distrustful community creates stress, distress, disorientation and conflict in person and with his community during transition.

2.3 Society condition; According to Meleis, et al. (2000) this condition includes social characteristic or situation and health care system in society level which may facilitate or inhibit transition. Opportunity of a person to reach health care system or other welfare system provided by society also plays important part in society condition.

Component 3: Patterns of response

Transition is a dynamic and directional process. Pattern of healthy transition can be determined either by process or by outcome as indicator of transition.

3.1 Process indicators; this is the determination from transition process comprising of;

3.1.1 Feeling connected; the level of how well the person in transition has a feeling of connectedness to family, society, and healthcare provider after passing through instability period till reaching new stable period.

3.1.2 Interacting; the level of how well the person reacts to the transition, which is different according to the person experience, family and society.

3.1.3 Location and being situated; the level of how well the person understands, accepts and adapts himself to the mobilizing location and situation during transitions.

3.1.4 Developing confidence and coping; the level of how well the person understands and develops feeling of confidence to cope with different process and situation in his transition.

3.2 Outcome Indicators

In order to determine the outcome of completion healthy transition, determining a subjective element and timing of achieving a sense of balancing in one's life after completion transition is necessary. If outcome are considered too soon in a transition process, they may be process indicator. If outcome are considered too long after a transition is complete, they may related to other event is one's life. Two outcome indicators were proposed in Meleis, et al. (2000), namely; mastery and fluid integrative identity.

3.2.1 Mastery; is the level of how well a person demonstrate his mastery of skills and behaviors needed to manage and control his new situation and environments. Mastery results from blending previously established skill with the skill newly developed during the transition process. Mastery is unlikely to be seen early in a transition experience, however, person are often experiencing new sense of stability near the completion of transition, their level of mastery will indicate the extent to which they have achieved a healthy transition outcome.

3.2.2 Fluid integrative identities; transition can be characterized as resulting identity reformulation. This identities reformulation is fluid rather than static since a person in transition can integrate previously and new identities during transition in appropriate ratio, although the integrative process is quite fluid. The level of how well these identities fluidly integrated indicates the extent to which they have achieved a healthy transition outcome.

Component 4: Nursing Therapeutics

Nursing therapeutics is the conceptual framework composing of various measure of nursing to support a person to reach his completion healthy transition. Three nursing measure that are widely applicable to therapeutic intervention during transition were identified; namely, assessment of readiness, preparation for transition and role supplementation which can be detailed as follows;

4.1 Assessment of readiness; is a multidisciplinary endeavor and requires a comprehensive understanding of the patient. Assessment of readiness should include each of the condition identified above (Schumacher & Meleis, 1994) to create the individual profile of patient readiness and enable clinician and researcher to identify various pattern of the transition experience

4.2 Preparation for transition; Education is the primary modality for creating optimal conditions in preparation for transition. Adequate preparation requires sufficient time for the gradual assumption of new responsibilities and implementation of new skills.

4.3 Role supplementation; role supplementation was initially introduced by Meleis, et al. (1975) and used for first time parents and patients recovering from myocardial infarction. This measure concentrates on family caregiver role to support the patients after being discharged from acute care setting.

According to literature review of conceptual transition theory of Meleis, which explained the nature and condition of transition process. Even transition is unavoidable process but if a person realized the character and condition of transition process and were well prepared, well monitoring and preventing the negative situation or outcome, he could easily reach completion healthy transition.

The Application of Transitional Theory to Burn Patients in Rehabilitation Phase

Burn injury is generally severe sudden and unforeseen event. Such accidents often occur due to negligence or mistake committed by patients themselves. These events reflected sequential continuous changing process (Thosingha, 2000), which corresponding to Chick & Meleis (1986) work on illness/health status transition. The process begins with burn accident which is a transition from healthy to illness status

and from normal body image to visible impairment or disfigurement. The transition continues through emergency phase of severe injury, healing phase, until reaching rehabilitation phase when the patients recover their health. In rehabilitation phase, the patients have to cope with transition situation for example, transition from hospital to home stay. The patients have to return to their previous environment with change in their body image since the treatment cannot recover the burn scar to its original appearance. Even though the patients received treatment and being in transition until they survive and recover, they also unavoidably have their deformity, impairment and disfigurement as a new stable state in their life. The patients in rehabilitation phase may cannot sweat, cannot withstand sunlight or heat, they have hypertrophic scar and wound contraction around the joints, they have disfigurement and restrict in movement compare with pre-injury. These symptoms cause the patients to cope with difficulties in daily living activities and return to works.

In case that the patients suffer large area of burn wound, or suffer burn wound on visible area of body such as face, neck, and hand, they always be stared surprisingly or sometimes disgustingly from surrounding people, until they loss their confidence of their body image and their interaction with people (Blalock, et al., 1992; Warden, 1993). Change in body image can result in sexual relationship of patients (Bianchi, 1997; Kimmo, et al, 1998). the patient would loss their passion to stay close to their spouse or opposite sex. Thosingha (1991) found that a woman patient feel that she loss her sex appeal as a wife as before injury due to hand impairment and visible scar. She allows her spouse to have affair with the other woman. Patients would loss their self-esteem, fear of rejection or denial from family or community members and finally isolate themselves from family and community. As the patients suffer disfigurement and impairment, they would believe it is the old Karma from the past cause them to feel guilty for themselves. Patients may not tolerate to accept their loss and suffering and fail to reach their completion healthy transition. According to conceptual transition theory of Meleis, et al. (2000), transition condition, which promote the patients to reach completion healthy transition comprises of personal conditions and external condition (community and society). In this study, the first personal condition selected is severity of impairment which indicates the level of deformity and limitation to perform activities. The second personal condition selected

in this study is self-esteem since it indicates the level of how tough and positive emotion the patients are in order to win the obstacle in their life (Goffin, 1999). Monthly income is the third personal condition selected in this study since it indicates the level of stress and adaptation of patients (Lawrence & Fauerbach, 2003). The external condition selected in this study is social support which is the important benefit resources to support the patient to reach completion healthy transition. Once the patients in rehabilitation phase reaches completion healthy transition, they can manage and control their life, they can effectively adapt to their new environment and situation, and ready to take their new role healthy and happily.

3. The Measurement of Health Status in Burn Patients

The major burn injury patients have to struggle during treatment to survive. After survival they still cope with many problems in their health and life. When they are discharged from hospital and return to their former house and community, they have to adapt physically, mentally, emotionally, and socially to the change of their body image and health status. The patients can adapt to these change in different level of success. In order to measure health status among burn patients, the measurement can be performed by several methods.

As defined by the World Health Organization health status means “an individual’s level of psychological and social well-being” (WHO, 1958 cited in Munster, 1999). Quality of life measurements must be seen in the larger context of health status. To a certain extent, the technique and mechanism of measuring health status depend largely in what one wishes to measure. From the point of view of policy makers, there are three general ways of measuring quality of care and each has advantages and drawbacks;

1) Structure: for example, the distribution of physical specialties within a hospital, ownership of hospital, administrative layout, etc. This is a very narrow focused measurement of quality and it is difficult to demonstrate that such variation leads to change in outcome.

2) Process: defined as an encounter between patients and health care provider. Process measurement must demonstrate that improving resources leads to improvements in outcome, which is difficult to do. Process measurement is currently

the favorite tool of accreditation bodies and institutions because it is simple and the documentation of care lends itself well to process measurements.

3) Outcome: broadly, outcome measurement of quality of care refers to subsequent health status; quality of life measurements clearly fit into this category. For outcome measurements to gain credibility, it has to be demonstrated that changing either structure or process can influence outcome and of all the problems involved in outcome research. This is probably the most difficult.

To health care providers, the measurement of outcome is clearly the most significant aspect of outcome measurement (Munster, 1999). For burn patients who sustain in long-term adaptation problems involve the complex interaction among psychosocial, physical symptom, and functional ability factors. It would logically follows that outcome measurement should involve a more global measure of functioning rather than a series of measures (Cromes, Holavanahalli, Kowalske & Helm, 2002). According to literature review concerning the measurement of health status of burn patients, the outcome measurement can be categorized in to two types as follows;

Non-specific health status measurement: Using generic measurement tool which the measurement result of health status can compare with the other group. The most preferable tool is Sickness Impact Profile (SIP) and the Short Form 36(SF-36).

1) Sickness Impact Profile (SIP): The SIP is a comprehensive instrument to measure the effect of sickness on people (Bergner, Bobbitt, Carter & Gilson, 1981), includes 136 items about patients' functioning and activities. The questions are grouped into three categories which are dependent categories (sleep, eating, work, home management, recreation and pastimes), physical (ambulation, mobility, body care and movement), and psychosocial (social interaction, alertness behavior, communication). Therefore the instrument comprises totally 12 aspects. The SIP is one of the most comprehensive and adequate patient's detail inventory. It has been subjected to psychometric evaluation with satisfactory reliability. It is stable over time and able to differentiate well people from sick people, able to reflect positive effect of treatment.

2) Short Form 36(SF-36): Like the SIP, the SF-36 was classified as a generic instrument that would be appropriate for use in studying the treatment of virtually any health condition. A primary goal in the development of the SF-36 was to identify a minimum set of health status dimension that would cover most of general medical outcome and comprising of minimum number of question which still satisfy reliability evaluation. The aspect of SF-36 comprises of psychological well-being, role limitations due to physical health problems, role limitations due to mental health problems, physical function, social relations, pain, and fatigue (Ware & Sherbourne, 1992).

The generic nature of SIP, SF-36 and its reflection of overall integration make it an appropriate measuring tool for evaluating health outcome in injured patients (Cochran, Edelman, Saffle & Morris, 2004). However, SIP and SF-36 are not specific and does not cover all dimensions of burn patients' health outcomes. As a result, specific instruments, which are well defined for burn patient, are required in this study.

Specific health status measurement: The Burn Specific Health Scale (BSHS) was developed in early 1980s since burn care requires a well-functioning outcome scale to assess important dimensions of health individuals suffering from burn injury. The BSHS was constructed in combination of the Sickness Impact Profile, the Index of Activities of Daily Living, the General Well-Being Schedule, and burn specific items generated by patients and professionals in the field of burn treatment and rehabilitation (Blades, et al., 1982).

The BSHS was developed from a 369-item test version into a 114-item final enquiry. It was subsequently validated and finalized into an abbreviated 80-item version- the Abbreviated Burn Specific Health Scale (BSHS-A) (Munster, et al., 1987) containing four different main domain; Physical, Mental, Social, and General. These were further divided into a total of eight domains; Mobility and Self-Care, Hand Function, Role Activities, Body Image, Affective, Family/ Friend, Sexual Activity, and General Health Concerns (Munster, et al., 1987; Kidal, et al., 2001; Kidal, Anderson & Gerdin, 2002)

The widespread of the BSHS-A was, however, hampered by the size of the scale and by the fact that certain aspects of health impact on life after burn injury were not fully covered. The instrument was therefore revised again and a number of items were deleted and new ones were added on the basis of a content validity study of the BSHS-A (Blalock, et al., 1992; Kidal, et al., 2001; Kidal, et al., 2002). The result 31-item scale was termed the Revised Burn Specific Health Scale (BSHS-R) contained seven domains, termed; Simple Functional Abilities, Work, Body Image, Interpersonal Relationship, Affect, Heat Sensitivity, and Treatment Regimens (Blalock, et al., 1994).

The process whereby BSHS-R was constructed thus led to a reduction of the original eight domains to seven. This was done while attempting to maintain adequate sensitivity for various aspects of burn-related disability. However, relevant aspects of burn injury may nevertheless have been prematurely deleted. More specifically, items dealing with hand function and sexuality were excluded in BSHS-R (Kidal, et al., 2001; Kidal, et al., 2002). Therefore, derive a more complete version of the BSHS into a clinically useful condensed version, and still retain important dimensions of health status after burn injury. This was performed by means of exploratory principal components factor analyses and resulted in term the Burn Specific Health Scale-Brief (BSHS-B), with half the number of items in the original BSHS-A. This scale composed of the shorter BSHS-R with the addition of nine items to include two important new domains in the scale, namely, Sexuality and Hand Function. Each of these nine domains was well separated, with factors intercorrelations ranging between 0.11 and 0.56 and with Chronbach's alphas ranging between 0.75 and 0.93 (Kidal, et al., 2001; Kidal, et al., 2002).

4. Factors Related to Health Status of Burn Patients.

Relationship between level of impairment and health status of burn patients

Level of impairment is the level of major visible disfigurement or deformity of the body, of which the victim cannot resume their daily living activity, or the level of disability to move their part of body due to amputation or paralysis including other acute illness of major organ which the victim cannot resume their daily living activity. Some burn patients suffer only physical impairment but in some more severe case the

burn patients may suffer additional psychological impairment. Sinsuesatkul (1993) reported that the location of burn scar correlated to burn patient quality of life which is correspond with Sisalab (1997) who concluded that the location of burn scar correlated to adaptability of post-burn injury patient. Thosingha & Kaewchant (1989) found that the burn patients had less living potential compare with pre-injury living potential. Moreover, they reported that the patients were not satisfied at all about their mobility since they suffered wound contracture and damage of muscle, bone, tendon and ligament which limited their speed and range of movement. In summary, burn injury can cause impairment to body structure and its severity affects the quality of patients' life and the patients' performance to resume daily living activity which directly affect to their health status.

Relationship between self-esteem and health status of burn patients

Self esteem is the personal-self evaluation toward himself in the sense that he is capable, successful, important, meaningful and valuable (Coopersmith, 1968). Self-esteem is a main morale support for person to overcome obstacle or failure in life (Goffin, 1999). Rosenberg (1965, 1979, 1989) gave the meaning of self-esteem that it is a positive or negative attitude of a person toward himself based on evaluation of self-characteristics and includes feeling of self-satisfaction and self-acceptance. Self-esteem is developed since childhood when person experienced acceptance, adoration, and respect from another person. Self-esteem may be higher or lower until become adolescence depends on personal success in occupation, education and interrelationship with people in society. Person with low self-esteem may become depressed or over-worry.

Illness can lower self-esteem especially chronic illness and impairment which the person has to change their way of life or loss ability to manage their life (Pansiero & Adams, 1987). The more effect the illness has to a person's living activity, the lower self-esteem that person has. Kromwangkon (2002) reported positive significant relationship between self-esteem and health status of adolescence amputees. For burn patients, they have to return to society with a change in their body image, or remaining impairment so they have to depend on other person support to live their life. Self-esteem of burn patients therefore decrease. The burn patients were then depressed and

isolate themselves from society (Pukboonmee, 1997). They lost confidence to control their life, loss their faith and hope, feeling incapable, regret, sorrowful, and feeling burden to their family member. They frequently thought that life would be better, they could perform better job, would have better relationship in family if there was no impairment and/or disfigurement (Sinsuesatkul, 1993). For burn patient, self-esteem is an important factor in returning to their society (Davidson., Bowden, Tholen, James & Feller cited in Gilboa, 2001). Burn patient may take more than years depends on area and location of burn wound (Browne, Byrne, Brown, Pernock, Streiner & Roberts cited in Gillboa, 2001). Self-esteem then may have relationship to health status of burn patient.

Relationship between monthly incomes and health status of burn patients

Income is a basic but essential economic resource for person. It indicates socioeconomic status. Income influences selection of health care provider. Even though income is not the most important thing in life, but its influence to life should not be ignored. A person with high income can provide better resources for self-care and to fulfill his life and his satisfaction, as a result, better life quality and health status. On the other hand, person who has low or middle income frequently face financial problem cause worrying and regret(Orem, 1991), as a result, he would suffer lower health status (Cockerham, 2001).

Phochanapan, Sattayawiwat, Tongchareon(1995) found that there was positive significant relationship between income and quality of life of elderly which was corresponding to the work of Kanchanarangsee (1995) who studied in amputee and Jubjai (1997) who studied in cardiovascular disease. Sinsuesatkul (1993) reported study made among burn patients that most of them were employee and had not enough family income to feed all members which correspond with Thosingha (2000) who reported that burn patient were mostly age between 21-40 years who were major income provider for family. This income was lost during their rehabilitation and not able to work. Hospital and medicine expenses were also very high for them. They didn't have enough money for surgery or heal their impairment. So they had to live with their disfigurement and impairment. They had to depend on other to do daily living activity, feel of burden to family member. Some had to cope with poverty and

insecure family life. As a result, the burn injury affected patients' income therefore it may affect to health status of burn patient.

Relationship between social support and health status of burn patients

Social support is an external condition which can promote the person to reach healthy transition. House & Kahn (1985) defined the terms "social support" as an interaction among persons with at least one of these support 1. emotional support is to love, to care, to sympathize to listen and to compliment 2. appraisal support is to evaluate person behavior and ascertain that he is doing a right thing and to warn and consult when he is going wrong. 3. Information support is to give information the person need for adapt to changing situation in daily life. 4. Instrumental support is the material, labor, time support to help a person to take care of himself.

When a person gets social support from persons who love him or relative who are in the same society, his health care behavior is found to have relationship with such support (Cassel, 1976). His stress would decrease and better in coping with stress, his adaptation to situation is appropriate and better in problem solving (Cohen & Will, 1985). This support helps a person to live happier life (Moss, 1973 cited in Cockerham, 2001). Moreover, social support can help a patient to recover faster since he receive morale support from family member and relative to fight against illness, receive support to share his load financially and daily living activity and receive information support for better self care. As a result their illness would recover faster with minimize complication (Caplan, 1974 cited in Brownell & Shumaker, 1984)

Miller (cited in Belgrave, 1991) reported that there was significant relationship between social support and adaptability of disability patients. They were well motivated to recover and well accept to their disability. Cohen & Wills (1995) studied relationship between physical or psychological illness and health status, they found that lack of social support increased patients' stress and caused worse mental health which was correspond with Kromwangkon (2002) who found that social support had a positive relationship with health status of amputee adolescence. Sinsuesatkul (1993) also found similar positive relationship between social support and quality of life for severe burn patient. Burn patient suffered disfigurement and impairment which cannot resume their daily life activity or do their job, loss their

confidence in body image, feel like a burden and have a sense of dependency. As a result, burn patient need a lot of social support to help them perform their daily living activity, give them information and have someone to love and care of them. If these social supports needs cannot be fulfilled, the patients would loss their self esteem and self-confidence, they would loss their satisfaction in their life which correspond to Lawrence & Fauerbach (2003) who reported that social support affected stress and adaptability of patients after burn injury. Moreover this study found that if patients had high social support, their health outcome would be satisfied physically and mentally (Lawrence & Fauerbach, 2003) which means satisfactory health status.

Conclusion

Burn injury is a severe incidents which have great affects and cause major change in patients life which therefore affect to health status of patients in physical, mental, emotional and social dimension. Conceptual transition theory proposed by Meleis, et al. (2000) can be used to explain transition of burn patients which can be divided into two steps, the first step is transition from healthy person to burn patient, and the second step is transition from burn patient to better health status person. This second transition step also includes transition from hospital return to home environment with change in body image or remaining impairment. They have to cope with a lot of problem and difficulties in their daily living. Almost burn patients suffer pain or itchy in burn wound or hypertrophic scar so serious that they cannot sleep properly. They cannot sweat, are sensitive to sunlight or heat. In case of burn occur at hand or joint, wound contracture may occur, cause restrict of movement of such part. Some burn patient must be amputated. Burn patients with these impairments would face a lot of difficulty to perform their daily living activity and self care. Moreover, they cannot return to their work. Burn patient loss their confidence to have interrelationship with other and in some case isolate themselves from society. They may not have sexual desire or try to avoid sexual intercourse. These adversities would affect their mental and emotional status. They loss their self-esteem, feel burden to their family. Some patients cannot accept the loss and injury. As a result, some may have difficulties during transition. The conditions that support burn patients to reach completion healthy transition comprises of personal condition and external condition.

Personal condition includes meaning, cultural beliefs and attitude, socioeconomic status, preparation and knowledge. External condition includes community condition and society. According to literature review, severity of impairment had inverse relationship with health status. Self-esteem was an important factor to support people to have positive mind set to living their life. Monthly incomes was the other important factor which the pre-injury status affected adaptability and stress management of post-injury patients. Social support is external factor that was the main resources to support burn patients to reach completion healthy transition. In this desired transition outcome, the patients would manage their transition successfully, with effective adaptation, resume their new role healthy, happily and satisfactorily. However, there has been no study on transition condition related to health status of burn patients in rehabilitation phase. It become the main motivation of researcher to understand these transition conditions upon how can it be related to health status of burn patients in rehabilitation phase or on the other words “returning” to their normal life.

CHAPTER 3

METHODOLOGY

This study was a cross-sectional correlation design aiming to explore the relationships of factors in transition conditions such as level of impairment, self-esteem, monthly incomes, social support, and health status of burn patients in rehabilitation phase. Research methodology is presented in this chapter, which include population and sampling, research instruments and the process of quality testing, protection of samples' human right, data collection, and data analysis are described.

Population and Sampling

The populations used in this study were burn patients during rehabilitation phase who follow up at burn units or out-patient departments of four hospitals located in Bangkok Metropolitan, including Siriraj Hospital, Bangkok Metropolitan Administration Medical College and Vajira Hospital, Nopparatrajathanee Hospital, Bhumibhol Adulyadej Hospital, and one hospital located in the provincial area, which was Ratchaburi Hospital.

Inclusion Criteria

A purposive sampling was used in this study. Inclusion criteria for selecting the samples of this study were as follows;

1. Were at the age over 12 years old,
2. Had moderate and major burn injuries.*
3. Were at good level of consciousness and able to communicate.

* Using American Burn Association' burn assessment parameter, the criteria for classifying the extent of burn injury were as follows;

Moderate, uncomplicated burn injury

- Second-degree burns of 15-25% of total body surface area (TBSA)

in adult.

- Third-degree burns of <10% of TBSA not involving special care areas.
- Excluded electrical injury, inhalation injury, complicated injuries (such as multiple trauma), and all patients who were considered to be at high risk (such as older adults and those with chronic illnesses).

Major burn injury

- Second-degree burns of >25% of TBSA.
- All third-degree burns of $\geq 10\%$ of TBSA.
- All burns involving eyes, ears, face, hands, feet, perineum, joints.
- All inhalation injury, electrical injury, multiple trauma injuries, and all patients who were considered to be at high risk.

To estimate the needed sample size for this study, guidelines suggested by Cohen & Cohen (1983) were used. Given a conventional level of power of 0.80, using a 2 tailed alpha equal to 0.05 and a moderate effect size of 0.30, could be used to estimate a minimum sample size of 84 (Cohen & Cohen, 1983). As a result, 96 patients were enrolled in the study.

Settings

This study which was conducted in four hospitals located in Bangkok Metropolis and one hospital located in the provincial area. All these five hospitals were tertiary care hospitals that provide medical specialists who could treat and took care of burn patients. There was a similarity in organization and management of burn units in each hospital. The similarity was that each hospital operated a special unit taking care of burn patients, which admitted the burnt patients in resuscitation phase or emergent phase, acute phase and rehabilitation phase sequentially until discharging them from hospital. The follow up for the discharged patients was done by making appointment for medical checkup, evaluation and solving the health problem or complication at surgical OPD periodically during 9-12 am, Monday to Friday except for Siriraj hospital which the follow up was conducted at burn unit 9-12.00 am., Tuesday.

Research Instruments

The instruments used in the study were Demographic Data Questionnaire, Rosenberg Self-Esteem Scale, Social Support Questionnaire, and Burn Specific Health Scale-Brief.

Instrument 1 Demographic Data Questionnaire

This questionnaire consisted of demographic data and characteristics related to burn patients such as gender, religion, marital status, family status, education level, hometown, place of residence, occupation, monthly incomes, sufficiency of income, health welfare applied, cause of burn injury, duration of current injury, severity of burn injury, total body surface area (TBSA), and level of impairment. (Appendix E)

The level of impairment in this study was evaluated by guide to the evaluation of permanent impairment, American Medical Association Committee on rating of Mental and Physical Impairment, 1988 (Warden & Warner, 2002). The level was divided in five classes;

Class I Impairment of the whole person is 0 - 9%. A patient belonged in class I when (a) signs or symptoms of skin disorder were present, and (b) with treatment, there was no limitation or minimal limitation in the performance of the activity of daily living, although exposure to certain physical and chemical agents might increase limitation temporarily.

Class II Impairment of the whole person is 10 - 24%. A patient belonged in class II when (a) signs or symptoms of skin disorder were present, and (b) intermittent skin treatment was required, and (c) there is limitation in the performance of some of the activities of daily living.

Class III Impairment of the whole person is 25 - 54%. A patient belonged in class III when (a) signs or symptoms of skin disorder were present, and (b) continuous treatment was required, and (c) there was limitation in performance of many of the activities of daily living.

Class IV Impairment of the whole person is 55 - 84%. A patient belonged in class IV when (a) signs or symptoms of skin disorder were constantly present, and (b) continuous treatment was required which may include periodic confinement to the

home or other domicile, and (c) there is limitation of performance of many of the activities of daily living.

Class V Impairment of the whole person is 85 - 95%. A patient belonged in class V when (a) signs or symptoms of skin disorder were constantly present, and (b) continuous treatment was required which may include constant confinement to the home or other domicile, and (c) there was limitation of most activities of daily living.

Instrument 2 Rosenberg Self-Esteem Scale

The scale was developed in 1965 by Rosenberg. It is reliable and is widely used to evaluate a patient's self-esteem. In Thailand, the scale was translated into Thai by Srimorakot in 1993 to use in her study on patients with cervix cancer who were having radiotherapy. The study showed the reliability of Cronbach's alpha coefficient at 0.91. In addition, the scale was applied into other studies, such as a study in patients who lost their limbs (n=100) conducted by Vichitvathee (1995), a study in aging group (n=150) done by Homnan (1997), a study in adolescents who lost their limbs (n=103) carried out by Kromvongkon (2002). The studies showed the Cronbach's alpha coefficient ranged from 0.72-0.91. There are 10 questions in the Self-Esteem Scale. In this study, some questions in the original Thai version have been slightly changed for ethical reason because they may cause negative feeling to this sample group, the change comprises; Question 3 from "like a loser" to "difficult to accomplish", Question 6 "good attitude toward one self" to "feel good to one self", Question 8 from "desperately need to be more self acceptance" to "want to be more self-acceptance", Question 9 from "feeling useless" to "feeling difficult to help other people", Question 10 from "nothing good in me" to "as useful to society as other people". As a result, questions 3, 5, 8, and 9 were positive questions, and items 1, 2, 4, 6, 7 and 10 were negative questions. The answers in each question were given in 4 choices ranged in piecewise continuous scale (Likert scale). The set of answers with its scores were as follows;

Score for positive question	Score for negative question	Answer
4	1	Totally agree
3	2	Agree
2	3	Not agree
1	4	Totally not agree

The total score of the whole scale was 10-40. The lower score referred to the lower level of patient's self esteem and the higher score referred to the higher level of patient's self esteem. (Appendix E)

Instrument 3 Social Support Questionnaire

The scale was developed by Mangkiertisakul (1997) based on House's concepts (House, 1981) to measure social support in adolescents who suffered cancer. The social support measuring scale contains 20 questions, which were divided into four aspects, emotional support (questions 1-5), appraisal support (questions 6-10), information support (questions 11-15), and support in term of instrument (questions 16-20). The questions measure 1) the level of support that patients got, and 2) who provided them the support. The type of answers was Likert scale with five levels ranged from the highest score or receiving highest level of support (score =5) and lowest score or receiving none support (score=1). The total score of the scale ranged from 20 to 100. Higher score showed higher level of social support, while lower score illustrated lower level of social support.

Mangkiertisakul (1997) applied the scale to measure the level of social support in adolescents who suffered cancer. She found that the Cornbach's alpha coefficient was at 0.91. Furthermore, Yainoontad (1999) used the scale to evaluate the social support level in female patients with diabetes at menopause period and Chunpradub (1995) applied the scale to carry out her study in high risk pregnant women. The Cronbach's alpha coefficients were at 0.86 and 0.89 respectively. To be used in the current study, the researcher has modified some questions for better fit with patients suffered burn injuries. (Appendix E)

Instrument 4 Burn Specific Health Scale-Brief

Kidal, et al. (2001) modified the Burn Specific Health Scale-Brief from Burn Specific Health Scale, Burn Specific Health Scale-Abbreviated version, and Burn Specific Health Scale-Revised version. The scale was developed with the aim to measure health outcome of burn patients in nine health aspects, which were:

1. Heat Sensitivity, five items (items 28-32)
2. Affect, seven items (items 10-16)
3. Hand Function, five items (items 4-8)
4. Treatment Regiments, five items (items 33-37)
5. Work, four items (items 9, 38-40)
6. Sexuality, three items (items 21-23)
7. Interpersonal Relationship, four items (items 17-20)
8. Simple Ability, three items (items 1-3)
9. Body image, four items (items 24-27)

Totally, the Burn Specific Health Scale-Brief consisted of 40 items. The answers of each item were in the form of piecewise continuous (Likert) Scales. The answer, as a level of response to the question and score were as follows;

Response	Score
Extremely	0
Quite a bit	1
Moderately	2
A little bit	3
None (not at all)	4

The total score of the scale was 0-160. The higher score showed the higher level of health status, the lower score illustrated the lower level of health status. (Appendix E)

The intercorrelation in each aspect of the scale was 0.11-0.56 and the Chornbach's factor alphas was 0.75-0.93. The research has translated from English to Thai upon the following process.

1. Asking for a permission from Dr. Bengt Gerdin (Burn Unit, Department of Plastic Surgery, University Hospital, Uppsala, Sweden) to translate the Burn Specific Health Scale-Brief version from English to Thai language, and use the scale in the current study,
2. After getting the permission (Appendix D), the scale was translated from English to Thai language by two nursing lecturers who are fluent in both Thai and English languages,
3. Re-checked the scale in Thai version by a major advisor for the validity of language,
4. Back translated the Thai version scale into English language by a language expert in both English and Thai language (bilingual),
5. Took off Question number 23 which is about the expression of love by hugging and kissing because this expression was not fit with the Thai context,
6. Sent the back translation version to Dr. Bengt Gerdin for content validity. He commented the meaning of some back-translate version which were slightly deviated from original version to ascertain that Thai version would not loss its purposed meaning. His comments in electronic mail were shown in Appendix D.
7. According to the suggestions, the scale was corrected, and then it was sent to Dr. Bengt Gerdin for re-check again. The researcher then got permission to use the scale, and
8. Finally, checking for reliability of the scale was performed.

Instrument Quality Testing

Validity testing

Six qualified persons checked for content validity of Social Support Questionnaire and Burn Specific Health Scale-Brief. The qualified persons were (Appendix A);

1. One physician who was expertise in burn injured care
2. One nursing lecturer who was expertise in burn injured care

3. One physiotherapist who was expertise in burn injured care
4. Three nurses who were expertise in burn injured care

Reliability testing

Upon the suggestion given by the six qualified persons, the research checked, and corrected the instruments and then carried out a pilot study to search for reliability. The pilot study was conducted in 30 burn-injured patients who had similar character with study samples. The analysis of reliability was performed using Cronbach's alpha coefficient (Luecha, et al, 2000) which is mathematically described as follows;

$$\alpha = \frac{n}{n-1} \left[1 - \frac{\sum Si^2}{St^2} \right]$$

α = Cronbach's alpha coefficient

n = number of item

$\sum Si^2$ = Summation of variance of score in each item

St^2 = Variance of total score

The Cronbach's alpha coefficient in each instruments was as follows; 0.72 for the Rosenberg Self-Esteem Scale, 0.78 for Social Support Questionnaire, and 0.92 for Burn Specific Health Scale-Brief.

Cronbach's alpha coefficient was obtained with total sample ($n = 96$) as follows; 0.86 for the Rosenberg Self-Esteem Scale, 0.85 for Social Support Questionnaire, and 0.94 for Burn Specific Health Scale-Brief.

Protection of Human Rights

The researcher was fully aware of ethical circumstance to carry out the study. Therefore, to use the information gained from the study, at all time the researcher concerned about samples' pride, and value and effect of the study on the samples. The study objectives and the application of the study were explained to all study samples. The samples had the right to decide to participate or not to participate in the study,

which did not have any effects on their treatment, and care. The answer, and information raised from the study were kept confidentially and were used only for this study. Moreover, the samples had all rights to ask any questions in relevant to the study. After the burn-injured patients agreed to participate in the study, they needed to sign consent form (Appendix B).

In case if the samples were getting discontent, regret or disgust during answering the questionnaire, the researcher planed to tackle this problem by;

1. Stopped asking the questionnaire immediately
2. Explained to samples and their relatives (if available there) that they could quit from participating in research any time they wished.
3. Gave them a time and chance to open up their negative feeling or other related issue.
4. Coordinated with treatment team in charge to give the proper care.
5. Gave contact address and telephone number to samples, ensuring them that they can contact 24 hours a day.
6. Reported to the advisor and related personnel in ethics committee for research involving human subject

Data Collection

The researcher solely conducts the data collection by face to face interview. The data collection process was shown as follows.

1. An official letter to introduce the researcher and the study as well as its objectives was obtained from the Graduate School, Mahidol University. It then was sent to the director of Siriraj hospital, Director of Bangkok Metropolitan Administration Medical College and Vajira Hospital, Director of Nopparatrajathanee Hospital, Director of Bhumibhol Adulyadej Hospital, and Director of Ratchaburi Hospital, asking for permission to carry out the study.
2. The researcher submitted a letter to ethic committee to ask for permission to carry out data collection.
3. The researcher introduced herself and explained the data collection procedures to head of burn units and related personnel in data collection setting.

4. The researcher made a Survey for patients that meet samples' inclusion criteria from patient registration and medical record. Once the patients satisfying inclusion criteria were found, appointments were done by the researcher.

5. Following the appointment, the researcher met and introduced self to the potential samples, explained study process and objectives, and asked for potential samples' cooperation to answer questionnaire, as well as clarified the samples' right. Also, the researcher gave chances to potential samples to ask any questions in relation with the study. Once the potential samples agree to participate in the study, they were asked to sign a consent form.

6. The researcher interviews the samples in accordance with the questionnaire item. The researcher mark on the scale answered by the samples.

7. The information were gained from the data collection then analyzed using the statistical analysis program.

Data Analysis

The researcher utilized a statistical analysis program.

1. The demographic data were analyzed in term of frequency, and percentage.

2. The self-esteem scale, social support measuring scale, and health status scale were analyzed for Ranges, Means, and Standard deviations.

3. The correlation between the level of impairment, self-esteem, monthly incomes, social support, and health status were analyzed using Pearson's Product Moment Correlation Coefficient.

CHAPTER 4

RESULTS

This study aimed to examine the correlation of the transition conditions such as level of impairment, self-esteem, monthly incomes, social support, and health status of burn patients in rehabilitation phase. The results of the data relate to the general research findings which include demographic data, and characteristics related to burn injuries will be priority presented. Subsequently, the findings of the related variables which include self esteem, social support and health status will be presented. Finally results of the correlation among 4 independent variables, namely, level of impairment, self-esteem, monthly incomes, and social support and dependent variable, namely, health status will be presented.

General Research Findings

1. Demographic data

Totally 96 participants were recruited in this study. The majority were male (67.7%) with age range between 21 to 40 years (58.3%) an average age of 37.16 years (range 14-90 years). Most of participants were Buddhism (96.9%) only 3 participants were Muslim (3.1%). For marital status, a majority of participant were married (58.3%). The data revealed that family status of participants were family leader (51.1%) and family member (49.0%). The educational status data of participants showed that both primary and high school got closely highest percentage (41.7% and 40.6%, respectively). Approximately half of participants lived in Bangkok Metropolitan as their hometown (45.8%) but most of them resided and worked in Bangkok Metropolitan (70.8%) presently. 60 participants (62.5%) were nongovernmental employee. For post-burn injury occupation, 58 participants (60.4%) were unemployed. There were 16 participants (16.7%) who had non-income. For monthly income results, 44 participants (45.8%) earned less than 5,000 Bath/month. The average income for all participants was 5,578.13 Baht /month (range 0-100,000

baht). For sufficiency of income, the majority of participants (52.0%) reported that they had insufficient income. Only 16 of participants (16.3%) said that they earned sufficient income and had saving. For treatment, source of payment that was mostly used by participants were universal coverage (52.1%) and workman compensation fund/social security (44.8%) respectively. (Table 1)

Table 1 Demographic data of burn patients (n = 96)

Characteristic	Number	Percent
Gender		
Male	65	67.7
Female	31	32.3
Age (years)		
12 – 20	8	8.3
21 – 40	56	58.3
41 – 60	24	25.0
> 60	8	8.3
(Mean = 37.16 , S.D. = 15.14 , Min = 14, Max = 90)		
Religion		
Buddhism	93	96.9
Muslim	3	3.1
Marital status		
Single	27	28.1
Married	56	58.3
Divorced / Separated	13	13.5
Family status		
Leader of the family	49	51.0
Member of the family	47	49.0

Table 1 Demographic data of burn patients (n = 96) (continued)

Characteristic	Number	Percent
Educational level		
No education	6	6.3
Primary school	40	41.7
High school	39	40.6
Certificate / Diploma	6	6.3
Bachelor degree or higher	5	5.2
Hometown		
Bangkok Metropolitan	44	45.8
Northern region	12	12.5
Northeastern region	22	22.9
Eastern region	8	8.3
Southern region	4	4.2
Western region	6	6.3
Place of residence		
Bangkok Metropolitan	68	70.8
Other provinces	28	29.2
Pre burn injury occupation		
Non-government employee	60	62.5
Small to medium business owner	18	18.8
Agriculturist	8	8.3
Student	2	2.1
Unemployed	8	8.3
Post burn injury occupation		
Return to previous work	16	16.7
Return to work but cannot resume previous work	22	22.9
Unemployed as still in rehabilitation phase	58	60.4

Table 1 Demographic data of burn patients (n = 96) (continued)

Characteristic	Number	Percent
Average income per month (baht)		
No income	16	16.7
< 5,000	44	45.8
5,001 – 10,000	31	32.3
10,001 – 15,000	2	2.1
15,001 – 20,000	2	2.1
> 20,000	1	1.0
(Min = 0, Max = 100,000)		
Sufficiency of income		
Insufficient	50	52.0
Sufficient but no savings	30	31.3
Sufficient and have savings	16	16.7
Sources of payment*		
Governmental support	3	3.1
Universal Coverage scheme	50	52.1
Workman Compensation fund/ Social security fund	43	44.8
Insurance	1	1.0
Self & Family	14	14.6

* Patients could choose more than one answer

2. Characteristics related to burn injuries

Among all participants, the most common etiology of the burn injury was flame (43.8%), scald (35.4%), and electricity (20.8%) respectively. The majority of burn injury occurred while participants involved in work place (57.3%), followed by household incidence (40.6%) and 2 participants (2.1%) suffered burn injury from automobile crash. The average length of time of injury was 10.29 months (range 1-24 months). About 47.9% of them had injury less than 6 months while 24% had injury for

19-24 months. For severity of burn, participants suffered major and moderate burn (66.7% and 33.3%, respectively). Most participants had burn injuries more than 30% TBSA (61.5%). The average percentage of TBSA involved was 36.28% (range 10 – 90%). The results show that participants got burn injury in visible area (39.6%), semi-visible area (38.5%), and coverage area (21.9%). There were 7% of samples who suffered from the amputation of their limbs. For level of impairment, the results show that a majority of participants were in level 1-3, 40.6%, 25.0%, and 28.1%, respectively. (Table 2)

Table 2 Characteristics related to burn injuries (n = 96)

Characteristic	Number	Percent
Cause of burn injury		
Flame	42	43.8
Scald	34	35.4
Electricity	20	20.8
Places of burn injury		
Work sites	55	57.3
Household	39	40.6
During traveling	2	2.1
Post burn injury duration		
< 6 month	46	47.9
7 – 12 month	16	16.7
13 – 18 month	11	11.5
19 – 24 month	23	24
(Mean = 10.29, S.D. = 8.18, Min = 1, Max = 24)		
Severity of burn injury		
Moderate	32	33.3
Major	64	66.7

Table 2 Characteristics related to burn injuries (n = 96) (continued)

Characteristic	Number	Percent
Total body surface area (TBSA)		
1 – 10%	5	5.2
11 – 20%	24	25.0
21 – 30%	8	8.3
> 30%	59	61.5
(Mean = 36.28, S.D. = 18.20, Min = 10, Max = 90)		
Surface area of burn injury		
Visible area	37	41.1
Semi-visible area	32	35.6
Coverage area	21	23.3
Amputation		
Yes	7	7.3
No	89	92.7
Level of impairment		
Level 1	39	40.6
Level 2	24	25.0
Level 3	27	28.1
Level 4	5	5.2
Level 5	1	1.0

The Findings of the Related Variables

1. Self-esteem

The total scores of self-esteem of burn patients ranges between 22 to 40 (the possible range = 10 – 40) with mean score of 30.58 (S.D. = 4.57). The distribution of the score was the positively skewness (.255) which show that the participants had a moderate self-esteem. (Table 3)

2. Social support

The total scores of social support among participants ranged from 38 – 93 (Possible range = 20 – 100) with mean scores of 73.34 (S.D. = 9.99). The distribution of the scores was the negative skewness (-.531) which represented that the participants received moderate social support. When considering the four dimensions, it was found that the mean score of every dimension were higher than mid-range score. First, emotional support scores ranged from 8 – 25 with the mean of 18.49 (S.D. = 3.09). Second, appraisal support scores ranged from 7 – 25 with the mean of 17.35 (S.D. = 3.48). Third, information support scores range from 7 – 25 with the mean of 18.98 (S.D. = 3.99). Finally, instrument support scores range from 5 – 25 with the mean of 18.52 (S.D. = 3.51). Among the above dimension information support got the highest scores while appraisal support got the lowest. (Table 3)

3. Health status

The total score of health status of the participants ranged from 42 – 158 (Possible range = 0 – 160) with mean scores of 110.58 (S.D. = 26.17). The distribution of the scores was the negative skewness (-.434) which represented that the participants perceived their health status as a moderate level. When considering each dimensions, heat sensitivity scores ranged from 0 – 18 with the mean of 8.99 (S.D. = 4.92), affect scores ranged from 3 – 28 with the mean of 22.80 (S.D. = 5.65), hand function scores ranged from 0 – 20 with the mean of 13.99 (S.D. = 5.63), treatment regiments scores ranged from 0 – 20 with the mean of 13.46 (S.D. = 5.02), work scores ranged from 0 – 16 with the mean of 6.82 (S.D. = 4.99), sexuality scores ranged from 6 - 12 with the mean of 10.99 (S.D. = 1.76), interpersonal relationship scores ranged from 6 - 24 with the mean of 14.96 (S.D. = 2.83), for simple ability scores ranged from 0 - 12 with the mean of 7.54 (S.D. = 3.69), and for body image scores ranged from 0 - 16 with the mean of 11.03 (S.D. = 4.38). (Table 3)

Table 3 Range, mean and standard deviation of self-esteem, social support, and health status (n = 96)

Variables	Possible Range	Actual Range	Mean	S.D.
Self-esteem	10 – 40	22 – 40	30.85	4.57
Social support	20 – 100	38 – 93	73.34	9.99
Emotional support	5 – 25	8 – 25	18.49	3.09
Appraisal support	5 – 25	7 – 25	17.35	3.48
Information support	5 – 25	7 – 25	18.98	3.99
Instrument support	5 – 25	5 - 25	18.52	3.51
Health status	0 – 160	42 – 158	110.33	25.90
Heat sensitivity	0 – 20	0 – 18	8.99	4.92
Affect	0 – 28	3 – 28	22.76	5.65
Hand function	0 – 20	0 – 20	13.99	5.63
Treatment regimens	0 – 20	0 – 20	13.46	5.02
Work	0 – 16	0 – 16	6.82	4.99
Sexuality	0 – 12	6 – 12	10.95	1.78
Interpersonal relationship	0 – 16	6 – 16	14.79	2.51
Simple ability	0 – 12	0 – 12	7.54	3.69
Body image	0 - 16	0 – 16	11.03	4.38

The Correlation among Variables: Level of Impairment, Self-Esteem, Monthly Incomes, Social Support, and Health Status

To explore the correlation among Level of impairment, Self-esteem, Monthly incomes, Social support, and Health status of burn patients in rehabilitation phase, the Pearson's Product Moment Correlation was performed. The results revealed that self-esteem and social support had a positive significant relationship with health status at 0.01 statistic level ($r = .570$ and $.352$ respectively). Level of impairment had a negative significant relationship with health status at 0.01 statistic level ($r = -0.414$). Monthly incomes had no significant relationship with health status ($r = .100$). (Table 4)

Table 4 The correlation among level of impairment, self-esteem, monthly incomes, social support, and health status (n = 96)

Variables	1	2	3	4	5
1. Level of impairment	1.000	-.344**	-.207*	-.180	-.414**
2. Self-esteem		1.000	.279**	.267**	.570**
3. Monthly incomes			1.000	.180	.100
4. Social support				1.000	.352**
5. Health status					1.000

** $p < 0.01$, * $p < 0.05$

CHAPTER 5

DISCUSSION

The improved quality of acute burn care has resulted in a significantly increased rate of survival for afflicted patients. Consequently, there is an increased awareness of the importance of studying health status among burn patients in rehabilitation phase and the correlation between transition conditions which included level of impairment, self-esteem, monthly incomes, and social support toward health status of burn patients in rehabilitation phase. Discussion of the finding is presented in the following topics: demographic characteristics of burn patients, level of self-esteem, social support and health status of burn patients including transition conditions relating to health status among burn patients in rehabilitation phase.

Demographic Characteristics of Burn Patients

The participants were mostly male (67.7%), married (58.3%), with age range between 21 to 40 years (58.3%) an average age of 37.16 years. In this point, there are no differences from the previous studies which implemented in Thailand or abroad, such as Sinsuesatkul (1993), Chaiphosri (1995), Sisalab (1997), Thosingha (2000), and Pallua, et al. (2002), revealing that the severe burn injuries mostly occurred in adults at the ages ranged from 21 to 40 years old. The predominance of men clearly related to the fact that males are more likely to be in fire-risk environments than female (Pallua, et al., 2002). Among all participants, the most common cause of burn injury was flame (43.8%). The finding was relevant to previous studies in Thailand (Chaiphosri, 1995; Chantarasukul, et al., 1995; Sinsuesatkul, 1993; Sisalab, 1997; Subongkosh, 2003; Thosingha, 2000) which demonstrated that flame burns were frequently found among Thai people. The dominant of flame burn in adult is common in all countries because the people in this age range are most susceptible to contact with fossil fuel driven/containing equipment or machine, for example, a study on admission to one

burn injury center during 1978 to 1996 found 1,011 case out of 4,339 acute admissions (23.3%) as related to gasoline misuse (Barillo, Stetz & Zak, 1998).

Major burn accidents in those well-developed countries rarely occurred in public such as factories and other work sites, because there was a very high level of regulations for preventive measures in regard to accidents at work sites (Thosingha, 2000). On the contrary, major burn accidents in Thailand most frequently occurred at work sites (Chantarasakul, et al., 1995; Thosingha, 2000). Likewise in this study, the majority of burn injury occurred while participants involved in work place (57.3%). It can be implied that work safety in many work places were below standard or even ignored. Moreover, this result indicated that worker had low awareness of work safety and had inadequate safety training. These unsafe work places and lacking of careful inspection, incorporated with the absence of work orientation certainly increased the risk for burn accidents. According to author's interviews, some patients said that the burn incident occurred on only a few days after they worked on a completely new job which they were never trained by employer how to protect themselves from injuries.

According to the participants, the average length of time from injury to the study was 10.29 months. About 47.9% of them, which had injury less than 6 months, suffered major and moderate burn (66.7% and 33.3%, respectively). There were participants who had TBSA to more than 30% (61.5%) and the average percentage of TBSA involved was 36.28%. For visibility of scar, the results showed that participants got burn wound mostly in visible area (39.6%), such as in hand and face area which cannot be covered. This result was in accordance with the studies of Sisalab (1997), Chaiphosri (1995), Sinsuesatkul (1993), who reported the majority of burn patients admitted in burn unit and visible scar which cannot be covered, since these areas are uncovered so it had more probability to be burnt and therefore more severity of burn scar needed to be admitted (Marvin, 1992 cited in sisalab, 1997). Among the samples, all amputee were electrical burnt patients (7.3% of samples) since electrical injury caused thicker damaged tissue in comparison with thermal injury. This result was in accordance with Cochran, et al. (2004) who found 90% of amputees were electrical injury patients. For level of impairment, the results showed that the majority of participants were in level 1 (40.6%) which mean that most of patients still had skin disorder which required skin treatment and had no limitation or minimal limitation in

the performance of some of the activities of daily living (Warden & Warner, 2002). Thosingha (2000) found that, burn patients showed problematic in independent activities and the abilities to resume previous role functions, which emphasized that these patients were not ready to manage their life independently. She explained this as the existence of various physical symptoms that created direct effects on patients' mobility. The wound and pain that still persisted as well as joint contracture that had developed may lead to limitations of body movement. She finally concluded that the essential daily activities which required considerable effort of body movement such as moving around in a room or other essential activities in daily life, for example dressing, feeding, toileting were affected.

Most of participants graduated in both primary (41.7%) and high school (40.6%). Approximately half of participants registered in Bangkok Metropolitan as hometown (45.8%) however most of participants reside and work in Bangkok Metropolitan (70.8%) presently. Among them, 60 participants (62.5%) were employee. After burn injury, the majority of patients were still unable to work as they were still in rehabilitation phase. The percentage of unemployed patients after burn incident was 60.4% (58 patients) which was nearly 6 times higher than pre-burn injury unemployment (10 patients, 10.4%). The ability to return to work of this group could not be predicted during the study period since it should take longer time to see the exact health outcome of these patients. There were 16 participants who hold non-income (16.7%). However, this group of patients stayed with their families or relatives who supported only their basic needs in daily living. The monthly income results showed that 44 participants earned less than 5,000 baht/month (45.8%). The average income for all participants was 5578.13 baht/month. For sufficiency of income, participants said that they earned insufficient income (52.0%). Since more than half of participants were family leader (51.1%), their incomes were the main portion of total family income. These results could be rationalized that the family income of most participants should also be lower than the national average (12,729 baht/month; National statistical office, 1999 cited in Samranbua, 2001). The families of most participants were therefore considered as poor and it is evident that the income earned for the entire family was not indeed sufficient for high medical expenses for which they had to be responsible (Samranbua, 2001). Most of them had rights on healthcare

compensation from various sources. The biggest sources were universal coverage scheme (52.1%) and compensation fund/social security fund (44.8%) respectively. In the past 3-4 years after economic recession, the government promoted the 30-baht universal coverage scheme that demonstrated the alteration of national healthcare system aiming to motivate equal opportunity to access to health care services, particularly for low income people. This program would help reduce the medical expenses for poor people (Nitayarumphong & Mills, 1998). Burn patients required specialized burn units because of dedicated resources and the expertise of the various health care disciplines necessary to maximize outcomes of patients with large burn injuries (Flynn, 2002). In fact, severe burn injury took longer period of hospitalization than any other illness and trauma (Feller & Jones, 1986). Therefore, the health care costs of burn injuries were also prodigious. The expenses during their treatment included, very high expenses for medications, wound dressing materials, surgery charges, medical and other services charge, the expenses of their relatives who came to visit them, and the patients losses from work absence, about 240,638.83 baht/patients (Thosingha, 2000). In this research burn patients who hold social security card can be reimbursed the medical expense by compensation fund with was limited to not over than 35,000 baht per occurrence. If the medical expense was over than 35,000 baht the social security office shall pay for additional medical expense reimbursement with the limitation not over than 50,000 baht (Social Security Office, 2004). These social health services provided adequate support for burn patients in most case of this study.

Self-Esteem of Burn Injured Patients

It was found that burn patients had moderated self-esteem score (\bar{x} 30.58, S.D. = 4.57). That means the patients had good attitude and perception toward themselves. According to the theory, self-esteem is a positive or negative attitude of a person toward himself based on the evaluation of self-characteristics and includes feeling of self-satisfaction and self-acceptance. Self-esteem is developed since childhood when person experienced acceptance, adoration, and respect from another person. Self-esteem may be higher or lower until become adolescence depending on personal success in occupation, education and interrelationship with people in society

(Rosenberg, 1965; 1979; 1989). Moreover, self-esteem is a learned phenomenon, involving a lifelong process (Coopersmith, 1967; Crouch & Straub, 1983; Stanwyck, 1983 cited in Muhenkamp & Sayles, 1986). As a result, when people grow up, their self-esteem increase, especially in adulthood (Mullis, Mullis & Mormandin, 1992 cited in Anderson & Olnhausen, 1999). In addition, self-esteem has been shown to be an important factor in long-term social-adjustment (Davidson, et al., 1981 cited in Gilboa, D., 2000). According to Coopersmith's study, person with high self-esteem are usually happier and more competent to meet environmental demands than person with low self-esteem (Coopersmith., 1967 cited in Foote, Piazza, Holcombe, Paul, & Daffin, 1990). An explanation of moderate self-esteem scores found in this study was that the majority of burn patients were 21 to 40 years (58.3%) which were in adulthood. The maturity of adulthood may give a clear self-image and increase their self-acceptance. Being an adult means increased participation in social activities, perception of social acceptance and usually success in their career (Stanwyck, 1983 cited in Higgins, et al., 1995)

All patients with burns share at least one experience, an injury to their body covering. This injury involves damage to body integrity, personal appearance, and functioning. They would find difficulty to maintain continuity and sense of coherence in their body image, uniqueness, and identity. All these factors may diminish a person's self-esteem and create additional stress for that person when he or she interacts with society. Nevertheless, in longer period of rehabilitation, some patients re-cope relatively well and re-adjust effectively to their new circumstances (Gilboa, Bisk, Montag & Tsur, 1999).

Consistent with the study of Kromwangkorn (2002) that adolescent patients who lost arms/legs presented high self-esteem. It is similar to the study of Intarasomchai (2004) conducted in brain tumor patients in postoperative phase that this group of patients showed moderate self-esteem because they could re-adjust themselves to new situation resulting in self-satisfaction and actualization.

Social Support of Burn Injured Patients

The finding of this study found that burn patients had moderated social support scores ($\bar{x} = 73.34$, S.D. = 9.99). The scores presented no significant difference

among each dimension. As described in this study, social support which comprising of support from family members, spouse, friends and health care providers, was an external condition that could promote patients to reach their healthy transition. It was shown to be an important factor for promoting an optimal health condition of participants. This is highlighted according to Cobb (1976 cited in Gilboa, 2001) “Social support is important not only during the acute period, when the skin is broken and emotional stress is greatest, but also later, upon the patient encounter with society at large, when the sign of the injury – the disfigurement, scars, and color change, particularly in the face and hands – are still noticeable and may evoke reactions of repulsion. Social support can counteract the negative impact of physical disease of trauma”

Social support was clarified as the resources that are provided by other persons (Cobb, 1979) in this study we found that, the participants had highest score in information support ($\bar{x} = 18.98$, S.D. = 3.99). The information received comprised of illness and treatment of relevant symptoms, complication that need consult from physician, and appropriate instruction to perform self-care and activity of daily living. Health care providers were the mostly specified by participants as information supporter. This finding might reflect the huge quantity of information support that patients obtained from health care providers while they came for follow up care or during hospitalization. As the patients had long length of stay and had good relationship with health care provider, their feeling toward health care providers were highly positive as well as highly trustful like the same family, as a result, the information were therefore most effectively supported from health care provider.

The major source of emotional support was from family member. Almost half of burn patients in this study were married (58.3%) and living with their own family members or had at least one family member with them during their difficult period. In Thai culture, it is the obligation or sense of duty to take care of the illness of family member and also ease their suffering. emotional support that include praise, love, trust, sympathy, and good listener to patient’s problems from family and friends or other patients offered the patients love, care and good feelings of releasing frustrations including psychological balance (Leavitt, Lamb & Voss, 1996). It was also

found in previous study that social support produced a positive health outcome (Muhklenkamp & Sayles, 1986).

Instrument support is the assistance in material, money, and manpower when the patient and family are needed. Almost burn patients required constant follow-up and time for rehabilitation. For the patients who were unable to be back to work thus having less or no income with increasing expenses for their healthcare, the money support might encourage them to carry on with their living (Intarasomchai, 2004). According to this study most of patients were employee (62.5%) which insured themselves in Social security fund. The patients can reimburse the medical expense from compensation fund and also be paid for day-off due to work accident compensation by compensation fund. In addition, government's 30- baht universal coverage scheme also helps in reducing the medical expenses for poor people (Nitayarumphong. & Mills, 1998)

Appraisal support showed the lowest scores ($\bar{x} = 17.35$, S.D. = 3.48) that was the affirmation and praised for proper behaviors with feedback and social comparison. This results seems to be in the opposite direction to social support result. This is the effect of the traditional personality of Thai people since they rarely make any verbal compliment to other, in stead, they preferred to perform non-verbal care. The score for appraisal support in this study may be deviated (say, lower than it should be) due to "western" concept of verbal compliment used in this instrument.

This study had similar findings with some studies of Leumcharoen (2002), Kromwangkorn (2002), Intarasomchai (2004), who illustrated that the patients received moderate level of social support. Especially, the study of Sinsuesatkul (1993), who studied burn injury patients, also found the moderate social support as same as this study.

Health Status of Burn Injured Patients

The participants demonstrated moderate score on health status ($\bar{x} = 110.58$, S.D. = 26.17) that is consistent with previous studies which found that burn survivors experience relatively good perceived health status after their injuries (Doctor, 1997; Williams, et al., 2003). Overall health status for burn survivors improves significantly over the first year post injury, and then appears to level off and remain generally

unchanged at the end of the second year post injury (Williams, et al., 2003), which is comparable to this study where the average length of time from injury to the study was 10.29 months

When considering each dimensions, it was found that the mean score were higher than mid-point in almost all dimensions, except heat sensitivity ($\bar{x} = 8.99$, S.D. = 4.92) and work ($\bar{x} = 6.82$, S.D. = 4.99). For heat sensitivity, the BSHS-B scale was quite low since the majority of participants (61.5%) in this study suffered 2 – 3 degree burns with more than 30% of total body surface area ($\bar{x} = 36.28$, S.D. = 18.20) which can destroy the sweat glands located in the dermis throughout the body. The loss of sweat glands can have serious consequence for the rehabilitation of burn injured patients. If a significant percentage of sweat glands are lost, the sweating rate is inefficient, with a concomitant rise in core temperature. The loss of sweat glands reduces the effective sweating area and decreases the thermal gradient between the core of the body and the skin. Due to the destruction of this gland, patients would have problem to withstand in a hot, humid environment. Hot and humid environment conditions do not allow the effective evaporation of sweat glands for thermoregulation. Consequently, burn patient with reduced sweat glands is further compromised by the lack of evaporative sweating, which results in an even greater rise in core temperature (Falkel, 1994). Heat sensitive problems are greater in hot and humid country like Thailand. According to the interviews with patients, heat sensitive cause irritation, frustration, overheat, insomnia, localized over-sweat which they had to wipe it out all the time, they also avoided working or traveling outdoor in hot-sunny weather since they could not withstand heat sensitivity effect. Some patients had to invest for air conditioner in their room and ran it all the time to ease their suffering which cause a lot of expense.

For lower mean score of work dimension, it is found that the majority of participants (58.3%) are aged between 21-40 years old which is the strong working resource and the major source of family income. Burn incident caused them to cease their job for a long time and their working ability was deteriorated or destroyed by injury. Return to work is the most common problem reported during the first year after discharge from the hospital (Blades, et al., 1979; Helm & Walker, 1992; Andreasen, Noyes & Hartford, 1972 cited in Moss, Everett, & Patterson, 1994). Burn

patients often must contend with and extend period of outpatient recovery before they are ready to return to work, and many experience undesirable changes in their employment status such as a job reassignment or reduced work (Moss, et al., 1994).

The Correlation among Variables: Level of Impairment, Self-Esteem, Monthly incomes, Social support, and Health Status

The study hypothesized that level of impairment, self-esteem, monthly incomes, and social support were correlated with burn injured patients' health status in the phase of rehabilitation. The results revealed that self-esteem and social support had positively correlation with health status of burn injured patients ($r = .570^{**}$, $.352^{**}$, $p < .01$ respectively). While level of impairment had negatively correlation with burn injured patients' health status ($r = -.414^{**}$, $p < .01$), and monthly incomes had no correlation with health status of burn injured patients.

Likewise this study, most burn patients do eventually adapt well and resume lives of productive activity with satisfactory self-esteem. As a result of high self-esteem, the patients were successful in performing their roles. Self-esteem provides confidence in understanding new roles and recognition of personal potential for accomplishing goals associated with familiar roles. The belief in one's own ability to be successful operates as a self-fulfilling prophecy. The patient with high self-esteem confidently anticipates success (Miller, 2000). According to the study of Kromwangkon (2002) which illustrated that adolescent patients who lost arms/legs had positively correlation of self-esteem and health status ($r = .453$, $p < .01$). Moreover, the study of Intarasomchai (2004) found that self-esteem had positively correlated with quality of life of brain tumor patients in postoperative phase ($r = .647$, $p < .01$). Both results are in the same direction with the result in this study.

Social support was a factor of transition conditions of community that could assist patients to gain good health status outcome. In this study, the result revealed that with high social support, burn injured patients' would have high level of health status. Because of patients who received social support from persons who love them or relatives and are in the same society, their stress would be decreased and better in coping with stress, his adaptation to situation is appropriate and better in problem solving (Cohen & Will, 1985). Moreover, social support can help a patient to recover

faster since he receives support from family members and relatives to fight against illness, receive support to share his load financially and daily living activity and receive support for better self care. Kromwangkon (2002) found that social support had a positive relationship with health status of amputee adolescence. Intarasomchai (2004) found social support had positively correlation with quality of life among brain tumor patients in postoperative phase. Sinsuesatkul (1993) also found similar positive relationship between social support and quality of life for severe burn patient. Corresponding to the other studies, lack of social support increased patients' stress and caused worse mental health (Cohen & Wills, 1995). Lawrence & Fauerbach (2003) also reported that social support affected stress and adaptability of patients after burn injury. Bernstein, O'Connell & Chedekel (1992) state that "one of the strongest buffers against feeling loss of quality of life after burn injury is to receive high levels of social support".

On the other hand, level of impairment had negatively correlation with burn injury patients' health status ($r = -0.41$, $p < .01$). The result revealed that with high level of impairment, the patients would have low level of health status. Existing impairment were relevant factors of patient's illness that could be counted as personal factors in transition conditions. When burn patients develop into rehabilitation phase, patients might have several level of impairment generating difficulty of living that might create a difficult transition and would be worse in health status. Thosingha (2000) stated that patients' health status gradually decline while the wounds gradually healed with other consequences. In this study, the finding was in consistent with Pruzinsky, Rice, Himel, Morgan & Edlich (1992) and Fauerbach, et al., 2000 (cited in Pallua, et al., 2003) who found the post-trauma quality of life revealed statistical significant impairment in patients with limited function ability. One reason of this could be the important effect of mobility which is a sign of personal freedom in today's society and a criterion to exclude disabled individuals from normal society (Pallua, et al., 2003). In modern society, it is not only survival that is important, but also the quality of life achieved (Barret, 2002). In conclusion the level of impairment affect negatively to quality of life and health outcome of the burn patients.

In addition this study found that monthly income had no correlation with health status of burn patients. The conclusion may be rationalized by many factors for

example, governmental health care policy which enable the people to reach adequate health care service as welfare with minimum individual payment. Obviously the patients may not know the correct monthly income or any financial problem of the family since the family member may tell them the white lies to keep them free from worrying.

In summary, even though burn patients experienced difficulties during the long-term of rehabilitation phase, almost burn injured patients in this study did eventually adapt well and resumed positive outcome towards their health status. However, there are some problems that should be taken into consideration, heat sensitivity and work status. Also, it can be summarized that outcomes from burn injury depend upon many factors in transition conditions, which promote the patients to reach completion healthy transition. These include personal factors; level of impairment, self-esteem, monthly incomes, and community factors; social support. For personal factor, it was found that self-esteem can promote the better transition health outcome for the patients. On the other hand level of impairment can be an obstacles/inhibitor for good transition health outcome. For community factor, social support from family and nurse can promote positive transition health outcome. Once the patients in rehabilitation phase reached completion healthy transition, they could manage and control their life, they could effectively adapt to their new environment and situation, and ready to take their new role healthy and happily. The findings from this study confirm the propositions as stated in transition theory. Likewise what Meleis and the other proposed, people can easily or difficultly obtain their transition outcomes. These depend on people's transition conditions; personal condition, community condition and society condition (Meleis, et al., 2000)

CHAPTER 6

CONCLUSION

The Summary of the Study

This descriptive research aims to study the correlation between transition conditions consisting of level of impairment, self-esteem, monthly incomes, and social support toward health status of burn injured patients in rehabilitation phase. The sampling group refers to 96 burn injured patients with aged 14 years and over with had moderate and major burn injuries and who received treatment and Follow up at Burn Unit or OPD of five hospitals located in Bangkok and its suburbs, including Siriraj hospital, Bangkok Metropolitan administration medical college and Vajira hospital, Noparatrachthani hospital, Bhumibholadulyadej hospital, and Radburi hospital. The sampling selection is the purposive sampling to collect data in January - September, 2004 by interview. The Research instruments comprise of demographic data questionnaire, Social Support Questionnaire of House's Concept, Rosenberg's Self-esteem Scale and Burn Specific Health Scale- Brief. Descriptive statistics and Pearson's Product Moment Correlation Coefficient were employed for data analysis.

The majority of studied participants were male (67.7%) with age range between 21 to 40 years (58.3%) an average age of 37.16 years (range 10-90 years). Most of participants were Buddhism (96.9%) only 3 participants were Islam (3.1%). For marital status, majority of participant were married (58.3%). The data revealed that family status of participants were family leader (51.1%) and family member (49.0%). The educational status data of participants show that both primary and high school got closely highest percentage (41.7% and 40.6%, respectively). Approximately half of participants registered in Bangkok and suburbs as hometown (45.8%) but most of them reside and work in Bangkok and suburbs (70.8%) presently. Among them, 60 participants (62.5%) were employee. There were 16 participants who hold non-income (16.7%) and earned less than 5,000 Bath/month (45.8%). The average income for all participants was 5578.13 Baht /month (range 0-100,000 baht).

For sufficiency of income, participants had insufficient income (52.0%). Only 16 of participants (16.3%) said that they earned sufficient income and had saving. For treatment, source of payment that is mostly used by participants were universal coverage card (74.0%) and compensation fund/social security card (60.4%) respectively

The most common cause of the burn injury was flame (43.8%), and occurred while participants involved in work place (57.3%). The average length of time of injury was 10.29 months (range 1-24 months). For severity of burn, participants suffered major and moderate burn (66.7% and 33.3%, respectively). Most participants had burn injuries more than 30% TBSA (61.5%). The average percentage of TBSA involved was 36.28% (range 10 – 90%). The results show that participants got burn injury in visible area (39.6%). There were 7% of samples who suffered from the amputation of their limb. For level of impairment, the results show that a majority of participants were in level 1 (40.6%).

The results revealed that the samples had relatively high level of health status ($\bar{x} = 110.33$, S.D. = 25.90) while their self-esteem and social support were at moderate level ($\bar{x} = 30.85$, S.D. = 4.57; $\bar{x} = 73.34$, S.D. = 9.99 respectively). Self-esteem was positively correlated with health status at moderate level ($r = .570$, $p < .01$), level of impairment was negatively correlated with health status at moderate level ($r = -.414$, $p < .01$). In addition, social support and positively correlated with health status at low level ($r = .352$, $p < .01$). However, monthly incomes were not correlated with burn injured patients' health status.

Implications of Research Findings on Nursing Practice

It can be stated that findings from this study contribute nursing knowledge in regard to nursing practice among patients in rehabilitation phase.

The results of this study manifested that level of impairment, self-esteem, social support play a critical role in the improvement of health status of burn injured patients in rehabilitation phase. As results, nurse should promote good level of impairment and strong self-esteem and social support to the patients as follows;

1. When patient is prepared for the moment of discharge, leaving hospital and returning to his home and his place in society. Nurse attention should direct towards the follow-up of the patient in his repossession of a physical identity which often disfigured by scars that modify not only his physical appearance but also his way of living and thinking. Therefore, the patients should be provided with effective constant care managed by a multidisciplinary team during hospitalization. Nurses should evaluate the promptness, acknowledge and train them with essential knowledge to manage caring by themselves. Nurses also have to seek for patients' available supporting resources especially for dependent patients by educating and training patients' family caregivers or family members. This can enhance their ability of care and support for patients so that they can achieve good transition outcomes and good holistic health.

2. It was found in this study that self-esteem was a factor associated with health status of burn patients. Therefore, nurses should be aware of patients' self-esteem level. To evaluate self-esteem of the patients is a responsibility of nurses as well as other healthcare providers in acute phase and rehabilitation phase. To increase patients' self-esteem, nurses should start from themselves by creating trust and credible relationship, listening to patient's problems, respect them as a person and convey caring attitude through an effective communication.

In rehabilitation phase, nurses should focus on an educational role by providing patients with essential information about self-improvement and self care strategies. With this, the patients will gain more information which enables them to perform their social role and lead a normal life as the ordinary people. Additionally, when the patients can take care of themselves, nurse should give their compliments and encourage them to feel proud by using reflective technique. At the follow-up visit, nurse should participate with and supervise patients while they are waiting for the physician, particularly patients who have complications that affect their living.

Obviously, this study found that self-esteem were positively correlated with social support and negatively correlated with level of impairment. Providing the patients' adequate social support especially information support that can promote better knowledge and standing to practice their self-care properly. Moreover, information support would assist the patients to adjust themselves with complication.

The patients who receive enough information support would gain a sense of independence and eliminate their feeling of being a burden especially for the patients with complication. These would enhance the patients self-esteem resulting to a better health outcome.

3. In this study, social support was found to have positively correlation with health status of burn patients. Therefore, during the long period of rehabilitation, nurse should assure the sustainable relationship between patients and the outside world-family, place of work, society in general. Nurse should take every possible measure and should continue to help the patient to face all sensitive situations during their interaction with “real” world. In one way, nurse can create a social support network for burn patient such as group support including self-help group, in which people can express themselves, and receive responses and comments from others who have had a similar experiences.

4. The study results can be used as a guideline for discharge planning to allow the patients back to their normal life. The planning should be co-ordination between health care team and patients. The target is to achieve the most effective rehabilitation after discharging. The effective rehabilitation plan should account for the potential of patients in various factors such as physical; level of impairment, self-esteem also external factors such as social support which can promote better adjustment to patients’ new situation.

5. The implementation of multidisciplinary outpatient aftercare service is essential. Since burn unit are not adequately cover to all area of country, a widely coverage network of trained multidiscipline professionals should be provided in order to be easily accessible and meets the need of a burn patients. When problems are detected, referral should be given to such network professional.

Implications of Research Findings on Further Research

1. A quasi-experimental research should be conducted to test the effectiveness of an interventional program to improve patients’ self esteem on patients’ health status.

2. Further studies should examine the role of another transition conditions in personal dimension, e.g. meaning, preparation and knowledge including society dimension to explain health status of burn patients to a greater deal.

3. The future researcher should shorten the studied post burn day since 2 years post burn period in this study considerably long. The patients who were in longer different post burn day may cause show deviation than from the shorter post burn study.

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APPENDIX

APPENDIX A

List of Experts

The contents of self-esteem questionnaire, social support questionnaire, and Burn specific health scale-brief were validated by six experts as below:

1. Dr. Burin Wangjiranirant
Department of Surgery,
Nopparatrajathanee Hospital
2. Asst. Nadwimol Ngamsirijit
Faculty of Physical Therapy and Applied Movement Science,
Mahidol University
3. Miss Preedaporn Seepakdee
Department of Nursing, Faculty of Medicine,
Siriraj Hospital, Mahidol University
4. Miss Yaowapa Sukawannarat
Department of Nursing, Faculty of Medicine,
Ramathibodi Hospital, Mahidol University
5. Mrs. Khachee Pongsathonviboon
Department of Surgical Nursing,
Kuakarun College of Nursing
6. Sqn. Ldr. Jintana Suphakitchanusan
Burn Unit, Bhumibhol Adulyadej Hospital,
Medical Directorate, Royal Thai Air Force

An expert who backtranslated the Burn specific health scale- brief and bilanguage specialist

1. Asst. Prof. Dr.Punchalee Wasanasomsithi
Language institute, Chulalongkorn University

APPENDIX B**Information Consent Form****หนังสือแสดงเจตนายินยอมเข้าร่วมโครงการวิจัยทางการแพทย์**

(โรงพยาบาลศิริราช)

วันที่.....เดือน.....พ.ศ.....

ข้าพเจ้า (นาย, นาง, นางสาว).....อายุ.....ปี
อาศัยอยู่บ้านเลขที่.....ถนน.....ตำบล.....อำเภอ.....
จังหวัด.....โทรศัพท์.....โทรสาร.....ขอแสดงเจตนา
ยินยอมเข้าร่วมโครงการวิจัยเรื่อง ปัจจัยเงื่อนไขของการเปลี่ยนผ่าน ที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วย
แผลไหม้ในระยะฟื้นฟูสภาพ โดยนางสาวอุไรวรรณ บุญพัฒน์ นักศึกษาหลักสูตรพยาบาลศาสตรมหาบัณฑิต
สาขาการพยาบาลผู้ใหญ่ คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล โดยข้าพเจ้าได้รับทราบเกี่ยวกับรายละเอียด
ของโครงการ ดังต่อไปนี้

วัตถุประสงค์ของการวิจัย

1. เพื่อศึกษาภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ
2. ศึกษาความสัมพันธ์ระหว่างปัจจัยด้าน ระดับความพิการ ความรู้สึกมีคุณค่าในตนเอง รายได้ต่อเดือน
ของผู้ป่วย และการสนับสนุนทางสังคม กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ

ประโยชน์ที่คาดว่าจะได้รับจากการวิจัย การวิจัยครั้งนี้ อาจจะไม่เกิดประโยชน์โดยตรงต่อผู้เข้าร่วมวิจัย
แต่จากผลของงานวิจัยสามารถนำไปใช้เป็นแนวทาง ในการวางแผนปฏิบัติการพยาบาล เพื่อให้สอดคล้องกับ
ปัญหาและความต้องการของผู้ป่วย และเป็นแนวทางให้บุคคลในครอบครัว รู้และเข้าใจถึงปัจจัยที่มีความสัมพันธ์
กับภาวะสุขภาพของผู้ป่วย ให้เกิดการร่วมมือ ส่งเสริมให้มีการดูแลอย่างเหมาะสม เพื่อให้ผู้ป่วยมีภาวะสุขภาพที่ดี
ยิ่งขึ้น

ความเสี่ยงหรือผลข้างเคียงที่อาจจะเกิดขึ้น การวิจัยครั้งนี้ไม่มีความเสี่ยงหรือผลข้างเคียงใดๆที่ผู้ป่วย
จะได้รับและไม่ ขัดต่อแผนการรักษาของแพทย์

รายละเอียดและขั้นตอนที่ผู้เข้าร่วมโครงการวิจัยจะได้รับการปฏิบัติ ถ้าผู้ป่วยยินดีเข้าร่วมในการวิจัย
ผู้วิจัยจะเป็นผู้สัมภาษณ์ผู้ป่วยตามแบบวัดและแบบบันทึกข้อมูล ซึ่งประกอบด้วยข้อมูลส่วนบุคคล แบบวัด
ความรู้สึกมีคุณค่าในตนเอง แบบวัดการสนับสนุนทางสังคม และแบบวัดภาวะสุขภาพ แบบวัดทั้งหมดมี 88 ข้อ ใช้
เวลาในการสัมภาษณ์ประมาณ 20 - 30 นาที ในขณะที่ผู้ป่วยนั่งรอเพื่อพบแพทย์ตรวจ

การติดต่อกับผู้วิจัย ในกรณีที่ผู้ป่วยมีปัญหา (ตลอด 24 ชั่วโมง) โทรศัพท์ 09-8669162

หากผู้วิจัยมีข้อมูลเพิ่มเติมทั้งด้านประโยชน์และโทษที่เกี่ยวข้องกับการวิจัยครั้งนี้ ผู้วิจัยจะแจ้งให้
ข้าพเจ้าทราบอย่างรวดเร็วโดยไม่ปิดบัง

ข้าพเจ้ามีสิทธิ์ที่จะของดการเข้าร่วมโครงการวิจัยโดยไม่ต้องแจ้งให้ทราบล่วงหน้า โดยการงดการเข้า
ร่วมการวิจัยนี้จะไม่มีการกระทบต่อการได้รับบริการหรือการรักษาที่ข้าพเจ้าจะได้รับแต่ประการใด

ข้าพเจ้าได้รับทราบข้อมูลของโครงการข้างต้น ตลอดจนข้อดี ข้อเสีย ที่จะได้รับจากการเข้าร่วมโครงการวิจัยในครั้งนี้ และข้าพเจ้ายินยอมที่จะเข้าร่วมในโครงการวิจัยดังกล่าว โดยขอให้ผู้วิจัยการเปิดเผยชื่อ ประวัติ ตลอดจนข้อมูลที่เกี่ยวข้องกับข้าพเจ้า แก่ผู้อื่นทราบ

ลงชื่อ.....ผู้ให้ความยินยอม / ผู้แทน
(.....) โดยชอบธรรม (ระบุความเกี่ยวข้อง)

วันที่.....เดือน.....พ.ศ.....

ลงชื่อ.....พยาน

(.....)

เอกสารชี้แจงข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย

(วิทยาลัยแพทยศาสตร์กรุงเทพมหานครและวชิรพยาบาล)

1. **ชื่อโครงการ** ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ ในระยะฟื้นฟูสภาพ
2. **หัวหน้าโครงการวิจัย** นางสาวอุไรวรรณ บุญพัฒน์
3. **สถานที่วิจัย** โรงพยาบาลศิริราช วิทยาลัยแพทยศาสตร์กรุงเทพมหานครและวชิรพยาบาล
โรงพยาบาลภูมิพลอดุลยเดช โรงพยาบาลนพรัตนราชธานี และโรงพยาบาลราชบุรี

ท่านได้รับเชิญให้เข้าร่วมโครงการวิจัยโดยมีวัตถุประสงค์ เพื่อศึกษาภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ

4. ทำไมต้องศึกษาเรื่องนี้

ผู้ป่วยภายหลังเกิดแผลไหม้รุนแรงต้องประสบกับปัญหาด้านร่างกาย จิตใจ อารมณ์ สังคม และการดำรงชีวิตมากมาย ซึ่งจะเกิดผลกระทบต่อภาวะสุขภาพของผู้ป่วย และการปรับตัวในการยอมรับสภาพของผู้ป่วยแต่ละคนนั้น มีความแตกต่างกัน ทั้งนี้ขึ้นอยู่กับปัจจัยต่างๆ มากมายไม่ว่าจะเป็นปัจจัยส่วนบุคคล หรือปัจจัยจากสภาพแวดล้อม ซึ่งจากการศึกษาค้นคว้างานวิจัยในอดีตที่ผ่านมา พบว่าปัจจัยที่น่าจะมีอิทธิพลต่อภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ ได้แก่ ระดับความพิการ ความรู้สึกมีคุณค่าในตนเอง ฐานะทางเศรษฐกิจ และการสนับสนุนทางสังคม ผู้วิจัยจึงมีความสนใจที่จะศึกษาว่าปัจจัยดังกล่าวมีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ ซึ่งเป็นระยะที่ผู้ป่วยได้ถูกจำหน่ายออกจากโรงพยาบาล และกลับไปดำเนินชีวิตในสังคม หรือไม่ ซึ่งคำตอบที่ได้จากการวิจัย จะช่วยให้ทราบถึงสภาพปัญหาที่ชัดเจนของผู้ป่วยแผลไหม้ สามารถนำไปเป็นข้อมูลในการวางแผนการดูแล และให้การพยาบาลที่สอดคล้องกับปัญหาผู้ป่วยอย่างแท้จริง

5. วัตถุประสงค์

เพื่อศึกษาภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ และศึกษาความสัมพันธ์ระหว่างระดับความพิการ ความรู้สึกมีคุณค่าในตนเอง ฐานะทางเศรษฐกิจ และการสนับสนุนทางสังคม กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ

6. จะปฏิบัติต่อท่านอย่างไร

ถ้าท่านยินดีเข้าร่วมในการวิจัย ผู้วิจัยจะให้ผู้ป่วยเป็นผู้ตอบแบบสอบถาม ซึ่งประกอบด้วย ข้อมูลส่วนบุคคล แบบสอบถามเกี่ยวกับความรู้สึกมีคุณค่าในตนเอง แบบสอบถามเกี่ยวกับการสนับสนุนทางสังคม และแบบสอบถามเกี่ยวกับภาวะสุขภาพของผู้ป่วย โดยแบบบันทึกข้อมูลส่วนบุคคลมีทั้งหมด 14 ข้อ แบบสอบถามมีทั้งหมดมี 88 ข้อ ใช้เวลาในการตอบแบบสอบถามประมาณ 20 - 30 นาที ในขณะที่ท่านนั่งรอเพื่อพบแพทย์ตรวจ

7. ประโยชน์

การวิจัยครั้งนี้ อาจจะไม่เกิดประโยชน์โดยตรงต่อท่าน แต่จากผลของงานวิจัยจะสามารถนำมาเป็นแนวทางในการส่งเสริมภาวะสุขภาพของผู้ป่วย ตลอดจนเป็นแนวทางให้บุคคลในครอบครัว ได้ตระหนักถึงปัจจัยที่จะช่วยให้ผู้ป่วยมีภาวะสุขภาพที่ดี เพื่อให้เกิดความร่วมมือในการส่งเสริมให้มีการดูแลอย่างเหมาะสม ให้ความช่วยเหลือสนับสนุนผู้ป่วยทั้งด้านร่างกาย จิตใจ และสังคมอย่างเพียงพอ

8. ความเสี่ยงหรือผลข้างเคียงที่อาจจะเกิดขึ้น

การวิจัยครั้งนี้ไม่มีความเสี่ยงหรือผลข้างเคียงใดๆ ที่ท่านจะได้รับ และไม่ขัดต่อแผนการรักษาของแพทย์

9. ท่านจำเป็นต้องเข้าร่วมโครงการหรือไม่

การตอบแบบสอบถามเพื่อการวิจัยครั้งนี้ เป็นไปตามความสมัครใจของท่าน แม้ว่าท่านจะปฏิเสธไม่เข้าร่วมการวิจัย ท่านจะได้รับการรักษาและบริการด้านสุขภาพในครั้งนี้อย่างต่อเนื่องๆ ไป จากโรงพยาบาลได้ตามปกติ

10. การรักษาความลับของท่าน

ในแบบสอบถามจะไม่มีการระบุชื่อ นามสกุลของท่าน ข้อมูลที่ท่านบันทึกจะถูกเก็บไว้สำหรับการวิจัย โดยเฉพาะ และจะเปิดเผยต่อหน่วยงานหรือสาธารณชนในภาพรวม และสรุปผลการวิจัยด้วยเหตุผลทางวิชาการ โดยไม่มีการระบุรายละเอียดเกี่ยวกับตัวบุคคลแต่อย่างใด

11. เจ้าหน้าที่โครงการที่ท่านสามารถติดต่อได้

นางสาวอุไรวรรณ บุญพัฒน์ คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล

โทรศัพท์ 0-2599-9348 , 0-9866-9162

หนังสือให้ความยินยอมเข้าร่วมในโครงการวิจัย

ทำที่.....

วันที่.....

ข้าพเจ้า..... อายุ.....ปี อยู่บ้านเลขที่.....

ถนน.....หมู่ที่.....แขวง/ตำบล.....เขต/อำเภอ.....

จังหวัด.....ขอทำหนังสือนี้ให้ไว้ต่อหัวหน้าโครงการวิจัยเพื่อเป็นหลักฐานแสดงว่า

ข้อ 1 ข้าพเจ้าได้รับทราบโครงการวิจัยของ นางสาวอุไรวรรณ บุญพัฒน์

เรื่อง ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ

ข้อ 2 ข้าพเจ้ายินยอมเข้าร่วมโครงการวิจัยนี้ด้วยความสมัครใจ โดยมีได้มีการบังคับ ชูเชิญ หลอกลวง แต่ประการใด และพร้อมจะให้ความร่วมมือในการวิจัย

ข้อ 3 ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยเกี่ยวกับวัตถุประสงค์ของการวิจัย วิธีการวิจัย ประสิทธิภาพ ความปลอดภัย อาการหรืออันตรายที่อาจเกิดขึ้น รวมทั้งประโยชน์ที่จะได้รับจากการวิจัยโดยละเอียดแล้วจาก เอกสารการวิจัยที่แนบท้ายหนังสือให้ความยินยอมนี้

ข้อ 4 ข้าพเจ้าได้รับการรับรองจากผู้วิจัยว่า จะเก็บข้อมูลส่วนตัวของข้าพเจ้าเป็นความลับ จะเปิดเผย เฉพาะผลสรุปการวิจัยเท่านั้น

ข้อ 5 ข้าพเจ้าได้รับทราบจากผู้วิจัยแล้วว่าหากมีอันตรายใดๆ ในระหว่างการวิจัยหรือภายหลังการวิจัย อันพิสูจน์ได้จากผู้เชี่ยวชาญของสถาบันที่ควบคุมวิชาชีพนั้นๆ ได้ว่าเกิดขึ้นจากการวิจัยดังกล่าว ข้าพเจ้าจะได้รับการดูแลและค่าใช้จ่ายในการรักษาพยาบาลจากผู้วิจัยและ/หรือผู้สนับสนุนการวิจัย และจะได้รับค่าชดเชยรายได้ที่ สูญเสียไปในระหว่างการรักษาพยาบาลดังกล่าวตามมาตรฐานค่าแรงขั้นต่ำตามกฎหมาย ตลอดจนมีสิทธิได้รับค่า ทดแทนความพิการที่อาจเกิดขึ้นจากการวิจัยตามมาตรฐานค่าแรงขั้นต่ำตามกฎหมายและในกรณีที่ข้าพเจ้าได้รับ อันตรายจากการวิจัยถึงแก่ความตาย ทายาทของข้าพเจ้ามีสิทธิได้รับค่าชดเชยและค่าทดแทนดังกล่าวจากผู้วิจัยและ/ หรือผู้สนับสนุนการวิจัยแทนตัวข้าพเจ้า

ข้อ 6 ข้าพเจ้าได้รับทราบแล้วว่า ข้าพเจ้ามีสิทธิจะบอกเลิกการร่วมโครงการวิจัยนี้เมื่อใดก็ได้ และการ บอกเลิกการร่วมโครงการวิจัยจะไม่มีผลกระทบต่อได้รับบรรดาค่าใช้จ่าย ค่าชดเชยและค่าทดแทนตามข้อ 5 ทุกประการ

ข้อ 7 ผู้วิจัยได้อธิบายเกี่ยวกับรายละเอียดต่างๆของโครงการ ตลอดจนประโยชน์ของการวิจัย รวมทั้ง ความเสี่ยงและอันตรายต่างๆ ที่อาจจะเกิดขึ้นในการเข้าโครงการนี้ให้ข้าพเจ้าได้ทราบ และตกลงรับผิชอบตามคำ รับรองในข้อ 5 ทุกประการ

ข้าพเจ้าได้อ่านและเข้าใจข้อความตามหนังสือนี้โดยตลอดแล้ว เห็นว่าถูกต้องตามเจตนาของข้าพเจ้า จึงได้ลงลายมือชื่อไว้เป็นสำคัญ พร้อมกับหัวหน้าผู้วิจัยและต่อหน้าพยาน

ลงชื่อ.....ผู้ยินยอม

(.....)

ลงชื่อ.....หัวหน้าผู้วิจัย

(.....)

ลงชื่อ.....พยาน

(.....)

ลงชื่อ.....พยาน

(.....)

หมายเหตุ 1) กรณีผู้ยินยอมตนให้ทำวิจัย ไม่สามารถอ่านหนังสือได้ ให้ผู้วิจัยอ่านข้อความในหนังสือ ให้ความยินยอมนี้ ให้แก่ผู้ยินยอมให้ทำวิจัยฟังจนเข้าใจดีแล้ว และให้ผู้ยินยอมตนให้ทำวิจัยลงนาม หรือพิมพ์ลายนิ้วหัวแม่มือรับทราบในการให้ความยินยอมดังกล่าวด้วย

2) ในกรณีผู้ให้ความยินยอมมีอายุไม่ครบ 20 ปีบริบูรณ์ จะต้องมิใช่ปกครองตามกฎหมาย เป็นผู้ให้ความยินยอมด้วย

APPENDIX C

Permission Letters for Data Collecting



บันทึกข้อความ

ส่วนราชการ สำนักงานคณะกรรมการจริยธรรมการวิจัยในคน ตึกอำนวยการ ชั้น ๕ โทร.๖๔๐๕-๖

ที่ ศธ. ๐๕๑๗.๐๗/ ๓๕๖๘


วันที่ ๕ มีนาคม ๒๕๕๗

เรื่อง แจ้งผลการพิจารณาโครงการวิจัย

เรียน นางสาวอุไรวรรณ บุญพัฒนา

ตามที่ท่านได้ส่งโครงการวิจัยเรื่อง " ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ " ซึ่งท่านเป็นหัวหน้าโครงการเพื่อขอรับการพิจารณาด้านจริยธรรม และคณะกรรมการจริยธรรมการวิจัยในคน ได้พิจารณาด้านจริยธรรมของโครงการดังกล่าวเมื่อวันที่ ๖ กุมภาพันธ์ ๒๕๕๗ แล้ว มีมติรับรองในหลักการ แต่ขอให้ท่านแก้ไขเพิ่มเติม และท่านได้แก้ไขตามคำสั่งของคณะกรรมการฯ แล้วนั้น คณะกรรมการฯ ได้พิจารณาโครงการที่ได้แก้ไขแล้วและมีมติรับรอง พร้อมนี้ได้ส่งเอกสารมาด้วย

จึงแจ้งมาเพื่อทราบ



(ศาสตราจารย์แพทย์หญิงสุมาลี นิมนานิตย์)
ประธานคณะกรรมการจริยธรรมการวิจัยในคน


**เอกสารรับรองคณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล**

เลขที่ 59/2004

ชื่อโครงการ	ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลใหม่ในระยะฟื้นฟูสภาพ
ชื่อหัวหน้าโครงการ	นางสาวอุไรวรรณ บุญพันธ์
เลขที่โครงการ/รหัส	---
สังกัดหน่วยงาน	คณะพยาบาลศาสตร์
เอกสารที่รับรอง	- โครงการวิจัย - หนังสือยินยอมและสมัครใจเข้าร่วมโครงการโดยได้รับการอธิบาย

ได้ผ่านการพิจารณาและรับรองโดยคณะกรรมการจริยธรรมการวิจัยในคนเมื่อวันที่ 27 กุมภาพันธ์ 2547

ลงนาม 
(ศาสตราจารย์แพทย์หญิงสุมาลี นิมนานนิตย์)
ประธานคณะกรรมการจริยธรรมการวิจัยในคน

ลงนาม 
(ศาสตราจารย์คลินิกนายแพทย์ปิยะสกล สกลสัตยาทร)
คณบดี คณะแพทยศาสตร์ศิริราชพยาบาล



บันทึกข้อความ

ส่วนราชการ คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล โทร. 0 2419-7000 ต่อ 6485-6

ที่ ศร 0517.07/ 4553 วันที่ 19 มีนาคม 2547

เรื่อง ยินดีให้ความอนุเคราะห์ในการเก็บข้อมูลประกอบการทำวิทยานิพนธ์

เรียน คณบดีบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล

ตามที่ บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล ได้ขอความอนุเคราะห์ให้ นางสาวอุไรวรรณ บุญพัฒน์ นักศึกษาศาสตรบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล หลักสูตรปริญญาโท สาขาวิชาการพยาบาลผู้ใหญ่ คณะพยาบาลศาสตร์ เข้าเก็บข้อมูลโดยการให้ผู้ป่วยแผลไหม้ อายุ 14 ปี ซึ่งอยู่ในระยะฟื้นฟูสภาพ ตอบแบบสอบถาม เพื่อเป็นข้อมูลประกอบการทำวิจัย เรื่อง "ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีอิทธิพลต่อภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟูสภาพ" ความละเอียดดังแจ้งแล้วนั้น

คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล พิจารณาแล้วยินดียินยอมให้ นางสาวอุไรวรรณ บุญพัฒน์ ทำการเก็บข้อมูลตามที่ขอความอนุเคราะห์มา ทั้งนี้ ได้แนบผลการพิจารณาด้านจริยธรรมการวิจัยในคนของคณะแพทยศาสตร์ศิริราชพยาบาล เมื่อวันที่ 6 มีนาคม 2547 มาพร้อมนี้

จึงเรียนมาเพื่อโปรดทราบ

(รองศาสตราจารย์นายแพทย์สรนิต ศิลธรรม)

รองคณบดีฝ่ายบริหาร คณะแพทยศาสตร์ศิริราชพยาบาล
ปฏิบัติราชการแทนคณบดี

189
20 ก.ย. 2547
11.05

ด่วนที่สุด
ที่ กท 0602/20⁰29



สำนักงานแพทย์ กรุงเทพมหานคร
514 ถนนหลวง เขตป้อมปราบฯ
กรุงเทพฯ 10100

27 กันยายน 2547

เรื่อง แจ้งผลการรับรองโครงการวิจัย

เรียน คณะบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล

อ้างถึง หนังสือบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล ที่ ศธ.0517.02(ศร) /0377
ลงวันที่ 10 มีนาคม 2547

- สิ่งที่ส่งมาด้วย 1) สำเนาหนังสือเรื่องแจ้งผลการรับรองโครงการวิจัย จำนวน 1 ฉบับ
- 2) สำเนาเอกสารรับรองโครงการวิจัยในคน จำนวน 1 ฉบับ

ตามหนังสือที่อ้างถึงบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล ได้ขอความอนุเคราะห์จาก
สำนักงานแพทย์ เพื่อให้นางสาวอุไรวรรณ บุญพัฒน์ นิสิตระดับปริญญาโท สาขาวิชาการพยาบาลผู้ใหญ่
คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล เก็บข้อมูลจากส่วนราชการสังกัดสำนักงานแพทย์ เพื่อประกอบการ
วิจัย เรื่อง "ปัจจัยเงื่อนไขของการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ในระยะ
ฟื้นฟูสภาพ" ความแจ้งแล้วนั้น

บัดนี้ คณะกรรมการพิจารณาและควบคุมการวิจัยในคนของกรุงเทพมหานคร ได้พิจารณา
โครงการวิจัยที่นำเสนอแล้ว มีความเห็นว่า โครงการได้มาตรฐาน ไม่ขัดต่อสวัสดิภาพ และไม่ก่อให้เกิด
ภัยอันตรายแก่ผู้ถูกวิจัย เห็นควรให้ดำเนินการวิจัยในขอบข่ายของโครงการที่นำเสนอได้ และให้ผู้วิจัยรายงาน
ผลการดำเนินงานต่อคณะกรรมการฯ ทุก 6 เดือน และเมื่อดำเนินการวิจัยเสร็จสิ้นเรียบร้อยแล้ว ขอให้ผู้วิจัย
ส่งบทคัดย่อมายังกองวิชาการ สำนักงานแพทย์ เพื่อเป็นข้อมูลการวิจัยต่อไป

จึงเรียนมาเพื่อโปรดทราบ และแจ้งนางสาวอุไรวรรณ บุญพัฒน์ ทราบต่อไป

ขอแสดงความนับถือ

(นายประวิทย์ ภัทรวิธา)
ผู้อำนวยการสำนักงานแพทย์

ฝ่ายพัฒนามนุคคล
โทร. 0 2224 9710
โทรสาร 0 2221 6029



บันทึกข้อความ

กองวิชาการ ส.พ.
วันที่ ๑๖/๘
วันที่ 23 ก.ย. 2547
เวลา 11.30 น.

ส่วนราชการ กองวิชาการ (ฝ่ายพัฒนาบุคคล โทร. 0 2224 9710 โทรสาร 0 2221 6029)

ที่ กท 0602.4/วค.236

วันที่ 22 กันยายน 2547

เรื่อง แจ้งผลการรับรองโครงการวิจัย ของ นางสาวอุไรวรรณ บุญพัฒน์

เรียน ผู้อำนวยการกองวิชาการ สำนักการแพทย์

ตามบันทึกที่ กท.0602.4/3236 ลงวันที่ 18 พฤษภาคม 2547 เรื่อง ขอส่งโครงการวิจัย ซึ่งท่านขอให้คณะกรรมการพิจารณาและควบคุมการวิจัยในคนของกรุงเทพมหานคร พิจารณาโครงการวิจัย ของ นางสาวอุไรวรรณ บุญพัฒน์ เรื่อง "ปัจจัยเงื่อนไขของการเปลี่ยนแปลงผ่านที่มีความสัมพันธ์กับภาวะ สุขภาพของผู้ป่วยแผลไหม้ในระยะฟื้นฟู" นั้น ลงวันที่ ๑๖/๘/๔๗

บัดนี้คณะกรรมการพิจารณาและควบคุมการวิจัยในคนของกรุงเทพมหานคร ได้พิจารณา โครงการวิจัยที่นำเสนอแล้ว มีความเห็นว่าโครงการได้มาตรฐาน ไม่ขัดต่อสวัสดิภาพ และไม่ก่อให้เกิด ภัยอันตรายแก่ผู้ถูกวิจัย เห็นควรให้ดำเนินการวิจัยในขอบข่ายของโครงการที่นำเสนอได้ และให้ผู้วิจัยรายงาน ผลการดำเนินงานต่อคณะกรรมการ ฯ ทุก 6 เดือน

จึงเรียนมาเพื่อโปรดทราบ และแจ้งผู้เกี่ยวข้องทราบต่อไป พร้อมนี้ได้แนบเอกสาร รับรองโครงการวิจัยในคนมาด้วยแล้ว

ประมวดี คุณเดช

(นางสาวประมวดี คุณเดช)

กรรมการและเลขานุการ

คณะกรรมการพิจารณาและควบคุมการวิจัยในคน

ของกรุงเทพมหานคร

๑๖/๘/๔๗



เอกสารเลขที่...พ...135.....

เอกสารรับรองโครงการวิจัยในคน

คณะกรรมการพิจารณาและควบคุมการวิจัยในคนของกรุงเทพมหานคร

ขอรับรองว่า

โครงการ : บัณฑิตเฝ้าไข้ของการเปลี่ยนผ่านที่มีความสัมพันธ์
กับภาวะสุขภาพของผู้ป่วยแผลใหม่ในระยะฟื้นฟูสภาพ

โครงการเลขที่ : 0041.47

ชื่อหัวหน้าโครงการ : นางสาวอุไรวรรณ บุญพัฒน์

สังกัด : สำนักงานสาธารณสุขจังหวัดสุราษฎร์ธานี
สำนักงานปลัดกระทรวง กระทรวงสาธารณสุข

โครงการได้มาตรฐานทางวิชาการ ไม่ขัดต่อหลักจริยธรรมสากล และเป็นไปตามคำประกาศเขตเชิงก

จึงเห็นสมควรให้ดำเนินการวิจัยในขอบข่ายของโครงการที่เสนอได้ ณ วันที่ 21 ก.อ. 2547

ลงชื่อ

(นายปิตินันท์ ณัฐจุโรจน์)

รองปลัดกรุงเทพมหานคร

ประธานคณะกรรมการพิจารณาและควบคุมการวิจัยในคน

ของกรุงเทพมหานคร

85/47

กลุ่มพัฒนาวิชาการ
 079
 29 ส.ค. 2547
 9.25



ศูนย์วิจัย และพัฒนา รทท.
 วันที่ 23
 ว.ค.ป. 14/20/42
 เวลา 11.00

สำนักงานผู้อำนวยการ
 136
 18/1/42 เวลา 15.30

ที่ ศบ 0517.05(พช.ม.) 017

คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล
 บางกอกน้อย กรุงเทพฯ 10700

มกราคม 2547

เรื่อง ขออนุญาตเก็บข้อมูลเพื่อประกอบการทำวิทยานิพนธ์

เรียน ผู้อำนวยการโรงพยาบาลนพรัตนราชธานี

โรงพยาบาลนพรัตนราชธานี
 213
 12 ส.ค. 2547
 11.20 น.

- สิ่งที่ส่งมาด้วย
1. โครงร่างวิทยานิพนธ์ จำนวน 1 ชุด
 2. แบบสอบถาม จำนวน 1 ชุด

กลุ่มงานศัลยกรรม
 015
 15 ส.ค. 2547
 14.45

ด้วย นางสาวอุไรวรรณ บุญพัฒนา นักศึกษาหลักสูตรพยาบาลศาสตรมหาบัณฑิต สาขา
 การพยาบาลผู้ใหญ่ คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล กำลังทำวิทยานิพนธ์ในหัวข้อเรื่อง "ปัจจัย
 เงื่อนไขการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ ในระยะฟื้นฟูสภาพ" โดยมี
 ผู้ช่วยศาสตราจารย์ ดร.อรพรรณ โคสิงห์ เป็นประธานควบคุมวิทยานิพนธ์ มีความจำเป็นต้องเก็บข้อมูล
 จากผู้ป่วยที่มารับบริการตรวจ ณ หอผู้ป่วยแผลไหม้ และเด็กผู้ป่วยนอก โรงพยาบาลนพรัตนราชธานี
 เพื่อประกอบการทำวิทยานิพนธ์ โดยจะเริ่มเก็บข้อมูลตั้งแต่เดือนมกราคม 2547 เป็นต้นไป จนกว่าจะได้
 ข้อมูลครบ จำนวน 90 ราย

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่ นางสาวอุไรวรรณ บุญพัฒนา ในการ
 เก็บข้อมูลเพื่อประกอบการทำวิจัยดังกล่าว จักเป็นพระคุณยิ่ง

Handwritten notes:
 12/20/47
 12/20/47

ขอแสดงความนับถือ

Handwritten signature

Handwritten notes:
 14/1/47

(รองศาสตราจารย์ ดร.ชื่นชม เจริญบุษย)
 รองคณบดี ปฏิบัติราชการแทน
 คณบดีคณะพยาบาลศาสตร์

หลักสูตรปริญญาโท
 โทร. 0-2419-7466-80 ต่อ 1411
 โทรสาร 0-2412-8415
 อีเมล 01-6661024

13 ส.ค. 2547

๒ -ทราบ
 -ดำเนินการได้

13 ส.ค. 2547

บริหารรับวันที่ 14 ส.ค. 2547 เวลา 9.00 น.
 13 ส.ค. 2547 เวลา 16.00 น.



รพ. ภูมิพลอดุลยเดช พ.บ.บ.ช.
 เลขรับ นส ๕
 วันที่ ๕ ธ.ค. ๖๗
 เวลา ๑๕.๓๐

ที่ ศธ 0517.05(พข.ม.)/๐๑๔

คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล
 บางกอกน้อย กรุงเทพฯ 10700

๘

มกราคม

รพ. ภูมิพลอดุลยเดช พ.บ.บ.ช.
 เลขรับ นส ๕
 วันที่ ๑๓ ธ.ค. ๖๗
 เวลา ๑๓.๓๐

เรื่อง ขออนุญาตเก็บข้อมูลเพื่อประกอบการทำวิทยานิพนธ์

เรียน ผู้อำนวยการโรงพยาบาลภูมิพลอดุลยเดช

- สิ่งที่ส่งมาด้วย 1. โครงร่างวิทยานิพนธ์ จำนวน 1 ชุด
 2. แบบสอบถาม จำนวน 1 ชุด

ด้วย นางสาวอุไรวรรณ บุญพัฒนา นักศึกษาหลักสูตรพยาบาลศาสตรมหาบัณฑิต สาขา
 การพยาบาลผู้ใหญ่ คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล กำลังทำวิทยานิพนธ์ในหัวข้อเรื่อง "ปัจจัย
 เจือปนในการเปลี่ยนผ่านที่มีความสัมพันธ์กับภาวะสุขภาพของผู้ป่วยแผลไหม้ ในระยะฟื้นฟูสภาพ" โดยมี
 ผู้ช่วยศาสตราจารย์ ดร.อรพรรณ โคสิงห์ เป็นประธานควบคุมวิทยานิพนธ์ มีความจำเป็นต้องเก็บข้อมูล
 จากผู้ป่วยที่มารับบริการตรวจ ณ หอผู้ป่วยแผลไหม้ และเด็กผู้ป่วยนอก โรงพยาบาลภูมิพลอดุลยเดช เพื่อ
 ประกอบการทำวิทยานิพนธ์ โดยจะเริ่มเก็บข้อมูลตั้งแต่วันที่ ๑๓ มกราคม ๒๕๔๗ เป็นต้นไป จนกว่าจะได้
 ข้อมูลครบ จำนวน ๙๐ ราย

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่ นางสาวอุไรวรรณ บุญพัฒนา ในการ
 เก็บข้อมูลเพื่อประกอบการทำวิจัยดังกล่าว จักเป็นพระคุณยิ่ง

นพ.กมล
 - นพ. น. พลโท อรรถพร นพ. นพ.
 พลเอก ชาติชาย ชุณหะวัณ

ขอแสดงความนับถือ

พล ๑๐๕๔๑๗

วันที่ ๑๓ ธ.ค. ๖๗, นพ. พลโท อรรถพร นพ. นพ. (รองศาสตราจารย์ ดร. ชื่นชม เจริญฤทธิ์)

รองคณบดี ปฏิบัติราชการแทน
 คณบดีคณะพยาบาลศาสตร์

น.อ. นพ.
 พล. นพ. พลโท อรรถพร นพ. นพ.

หลักสูตรปริญญาโท ๑๒ ธ.ค. ๖๗

โทร. 0-2419-7466-80 ต่อ 1411

โทรสาร 0-2412-8415

น.อ.หญิง
 พล. นพ. พลโท อรรถพร นพ. นพ.
 น.อ.หญิง พล ๑๒ ๑๒

น.อ.กองการพยาบาล รพ. ภูมิพลอดุลยเดช พ.
 ๑๓ ธ.ค. ๖๗

APPENDIX D

Permission Letters for Using Instrument

MSN Hotmail - Message
Page 1 of 2

[MSN Home](#) | [My MSN](#) | [Hotmail](#) | [Search](#) | [Shopping](#) | [Money](#) | [People & Chat](#)

[Sign C](#)

How long does it take artists to get discovered?

[Home](#) | [Inbox](#) | [Compose](#) | [Contacts](#) | [Options](#) | [Help](#)

[Search](#)

u boonphadh@hotmail.com
Free Newsletters | MSN Featured Offers | Find Message

[Save Address\(es\)](#) | [Block](#)

[Previous](#) | [Next](#) | [Close](#)

From : bengt.gerdin@briva.uas.lul.se
To : u boonphadh@hotmail.com
Subject : Ang: Re: Ang: <No subject>
Date : Thu, 14 Aug 2003 12:13:09 +0200
Attachment : FILE0001.HTM (1k)

[Reply](#) | [Reply All](#) | [Forward](#) | [Delete](#) | [Put in Folder...](#)

[Printer Friendly Version](#)

Dear Uraiwan Boonphadh

There is nothing you have to do and no forms to fill in. My mail is sufficient as a legal document.

There is a recommendation that I suggest that you follow when you translate into Thai. That is to first do a translation into Thai by one person and then let another person retranslate the Thai version into English. Finally you compare the original english version with the "retranslated english version. If both versions contain the same "real content" the translation has not led to loss of information. If there are items where the content or meaning differ between the versions you will have to look at those extra and decide on the final the Thai version.

If you want to have help with this, e.g. if you yourself want to be one of the translators, you can send me the retranslated new english version for assessment.

This procedure is recommended whenever you use instruments originally created in other languages.

Yours sincerely

Bengt Gerdin

u boonphadh@hotmail.com

2003-08-14 10:34

To: Bengt Gerdin/BRIVA/UAS/LUL@LUL

Kopia:

grende: Re: Ang: <No subject>

Notice: Attachments are automatically scanned for viruses using McAfee

[Reply](#) | [Reply All](#) | [Forward](#) | [Delete](#) | [Put in Folder...](#)

[Previous](#) | [Next](#) | [Close](#)

.../actmsd/cumbox#F-000000018a#9d149b1e01b1090629dd46b109/cduismop=MSU10009u0004.2886star#3030-4288on#4000218#F0

MSN Home | My MSN | Hotmail | Search | Shopping | Money | People & Chat Sign Out


คลิก รายละเอียด
แจ้งเตือนอีเมลใหม่บนมือถือคุณ
msn Mobile
Search

Hotmail
Home
Inbox
Compose
Contacts
Options
Help

u boonphadh@hotmail.com Previous Next | Close

From : bengt.gerdin@akademiska.se
To : "Uraiwan Boonphadh" <u boonphadh@hotmail.com>
Subject : Ang: Dear Prof. Gerdin
Date : Mon, 3 Nov 2003 11:13:23 +0100
Attachment : BSHS-B(compare).doc (51k)

Printer Friendly Version

Dear Uraiwan Boonphadh

I have assessed the retranslated BSHS-B versus the original version. There is very good agreement for most of the questions. I do want you to consider, however, the translations of a few questions. The important issue for you is whether the Thai responders interpret the questions similarly as an English speaking responder would. My points below are only to make you think again whether the Thai translations actually have the same meaning that the original text. Accept my points only as questions about this issue. If you find my points significant you should make appropriate - probably minor - changes in the Thai text for these questions.

Question 16, original text "I have feelings of being trapped or caught" is part of the Affect domain. The question has a quite abstract character about a feeling, and not of "a lack of places to go". I do hope the Thai translation has not lost that focus.

Question 23 is one of three questions in the domain "Sexuality". If this is not applicable to Thai the sexuality domain will only contain two questions, which is too little. My question to you is here whether it would not be better to exchange question 23 for another question with about the same underlying meaning, than leaving question 23 out. The topic covered by question 23 is that of "feelings of closeness" rather than feelings of "strong desire", which the other two questions in this domain cover. I think that this approach would be better than leaving the question out completely.

Question 26 "original text "My general appearance really bothers me" is part of the Body Image domain. The retranslation rather points to a "physical condition" aspect of health which might be influenced by e.g. general body strength, or physical performance", rather than "Body Image".

For question 34 the retranslation states "many things", where the original text says "things". Just a remark.

I really would like to assist you in this process until you have a very good final Thai version.
Yours sincerely

Bengt Gerdin

APPENDIX E Data Collection Instruments

Burn-Specific Health Scale-Brief (BSHS-B)

Name:
Personal ID number:
Current date: ____ - ____ - ____

--

INSTRUCTION

This form contains questions which in one way or another are related to problems or feelings that people may experience sometimes. A number of questions concern your previous burn in one way or another.

There are five possible answers for each question. The alternatives are given at the top of each page.

Read every question carefully. Your task is to identify which answer (only one!) that best describes you or how you feel in general, in other words not just now. Put one "cross" in the square which corresponds your answer. Don't skip any items. If you believe that any question is unclear, or this is unclear, contact the person who mailed you this inquiry.

The questions are written in the form of statements. We will start with an example (which is not found in the actual inquiry):

	Extremely	Quite a bit	Moderately	A little bit	Not at all
My burn itches a lot.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Work quickly and do not consider each question too long!

How much difficulty do you have:

	Extreme(ly)	Quite a bit	Moderate	A little bit	None (not at all)
1 bathing independently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 dressing by yourself?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 getting in and out of a chair?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 signing your name?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 eating with utensils?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 tying shoelaces, bows, etc?.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 picking up coins from a flat surface?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 unlocking a door?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 working in your old job performing your old duties?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent does each of the following statements describe you?

	Extremely	Quite a bit	Moderately	A little bit	Not at all
10 I am troubled by feelings of loneliness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 I often feel sad or blue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 At times, I think I have had an emotional problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 I am not interested in doing things with my friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 I don't enjoy visiting people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 I have no one to talk to about my problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 I have feelings of being trapped or caught.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 My injury has put me further away from my family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 I would rather be alone than with my family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 I don't like the way my family acts around me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 My family would be better off without me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 I feel frustrated because I cannot be sexually aroused as well as I used to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 I am simply not interested in sex any more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 I no longer hug, hold or kiss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Sometimes, I would like to forget that my appearance has changed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 I feel that my burn is unattractive to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 My general appearance really bothers me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Below you will find a number of questions about your damage.
To what extent does each of the following statements describe you?**

	Extremely	Quite a bit	Moderately	A little bit	Not at all
27 The appearance of my scars bothers me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 Being out in the sun bothers me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 Hot weather bothers me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 I can't get out and do things in hot weather.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 It bothers me that I can't get out in the sun.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 My skin is more sensitive than before.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 Taking care of my skin is a bother.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 There are things that I've been told to do for my burn that I dislike doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 I wish that I didn't have to do so many things to take care of my burn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 I have a hard time doing all the things I've been told to take care of my burn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 Taking care of my burn makes it hard to do other things that are important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 My burn interferes with my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39 Being burned has affected my ability to work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 My burn has caused problems with my working.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thanks for answering. Your answers will help us in our effort to understand the difficulties which patients afflicted by burns might encounter as well as possible aids given by health care.

แบบสอบถามข้อมูลส่วนบุคคล

คำชี้แจง โปรดเติมข้อความในช่องว่าง และทำเครื่องหมาย ÷ ลงในช่อง ()

1. เพศ

() ชาย

() หญิง

2. ท่านมีอายุ.....ปี

3. ท่านนับถือศาสนา

() พุทธ

() คริสต์

() อิสลาม

() อื่นๆ

4. สถานภาพสมรส

() โสด

() คู่

() หม้าย

() อื่นๆ

5. สถานภาพในครอบครัว

() หัวหน้าครอบครัว

() สมาชิก

6. ระดับการศึกษา

() ไม่ได้รับการศึกษา

() ประถมศึกษา

() มัธยมศึกษา

() อนุปริญญา

() ปริญญาตรี และสูงกว่า

7.

8.

9.

แบบวัดความรู้สึกมีคุณค่าในตนเอง

คำชี้แจง แบบสอบถามชุดนี้เป็นแบบวัดการความรู้สึกมีคุณค่าในตนเองโดยให้ท่านขีดเครื่องหมาย
 ÷ ลงในช่องที่ตรงกับความรู้สึกมีคุณค่าในตนเองของท่านมากที่สุด

ข้อคำถาม	เห็นด้วยมากที่สุด	เห็นด้วย	ไม่เห็นด้วย	ไม่เห็นด้วยมากที่สุด
1. ฉันรู้สึกว่าฉันมีคุณค่าเท่าเทียมคนอื่น				
2. ฉันรู้สึกว่าตัวฉันยังมีสิ่งที่ดีอยู่หลายประการ				
3. ฉันค่อนข้างจะรู้สึกว่าตนเองทำอะไรไม่ค่อยสำเร็จ				
4.....				
5.....				
6.....				
7.....				
8.....				
9. ฉันรู้สึกว่าไม่ค่อยได้ช่วยเหลือผู้อื่นเท่าที่ควร				
10. ฉันรู้สึกว่าตนเองทำประโยชน์ให้กับสังคมได้เท่าๆ กับคนอื่น				

แบบวัดการสนับสนุนทางสังคม

คำชี้แจง แบบสอบถามชุดนี้เป็นแบบวัดการได้รับแหล่งสนับสนุนทางสังคมโดยให้ท่าน
 จดเครื่องหมาย ÷ ลงในช่องที่ตรงกับการได้รับแหล่งสนับสนุนทางสังคมของ
 ท่านมากที่สุด

ข้อคำถาม	การได้รับการสนับสนุน					ผู้ให้การสนับสนุน
	มากที่สุด	มาก	ปานกลาง	เล็กน้อย	ไม่มีเลย	
1. ท่านได้รับความสนใจและเอาใจใส่ มากน้อยเพียงใด (จากใครบ้าง)						() สมาชิกในครอบครัว ระบุ..... () ญาติ ระบุ..... () เพื่อน () พยาบาล () แพทย์ () อื่นๆ ระบุ.....
2. ท่านได้รับความรัก และห่วงใยมากน้อย เพียงใด (จากใครบ้าง)						() สมาชิกในครอบครัว ระบุ..... () ญาติ ระบุ..... () เพื่อน () พยาบาล () แพทย์ () อื่นๆ ระบุ.....
3. ท่านได้รับ.....						() สมาชิกในครอบครัว ระบุ..... () ญาติ ระบุ..... () เพื่อน () พยาบาล () แพทย์ () อื่นๆ ระบุ.....

ข้อคำถาม	การได้รับการสนับสนุน					ผู้ให้การสนับสนุน
	มากที่สุด	มาก	ปานกลาง	เล็กน้อย	ไม่มีเลย	
4. มีคนใกล้ชิด.....						<input type="checkbox"/> สมาชิกในครอบครัว ระบุ..... <input type="checkbox"/> ญาติ ระบุ..... <input type="checkbox"/> เพื่อน <input type="checkbox"/> พยาบาล <input type="checkbox"/> แพทย์ <input type="checkbox"/> อื่นๆ ระบุ.....
5. เมื่อท่านมีเรื่องไม่สบายใจ.....						<input type="checkbox"/> สมาชิกในครอบครัว ระบุ..... <input type="checkbox"/> ญาติ ระบุ..... <input type="checkbox"/> เพื่อน <input type="checkbox"/> พยาบาล <input type="checkbox"/> แพทย์ <input type="checkbox"/> อื่นๆ ระบุ.....
6. ท่านได้รับคำชมเชย.....						<input type="checkbox"/> สมาชิกในครอบครัว ระบุ..... <input type="checkbox"/> ญาติ ระบุ..... <input type="checkbox"/> เพื่อน <input type="checkbox"/> พยาบาล <input type="checkbox"/> แพทย์ <input type="checkbox"/> อื่นๆ ระบุ.....
7. คนใกล้ชิดชม.....						<input type="checkbox"/> สมาชิกในครอบครัว ระบุ..... <input type="checkbox"/> ญาติ ระบุ..... <input type="checkbox"/> เพื่อน <input type="checkbox"/> พยาบาล <input type="checkbox"/> แพทย์ <input type="checkbox"/> อื่นๆ ระบุ.....

แบบวัดภาวะสุขภาพของผู้ป่วยแผลไหม้

คำชี้แจง แบบสอบถามชุดนี้เป็นแบบวัดภาวะสุขภาพของผู้ป่วยแผลไหม้ โดยให้ท่านขีดเครื่องหมาย ÷ ลงในช่องที่ตรงกับภาวะสุขภาพของท่านมากที่สุด

ท่านรู้สึกลำบากมากน้อยเพียงใด ในการปฏิบัติกิจกรรม ดังต่อไปนี้ :

ข้อคำถาม	มากที่สุด	มาก	ปานกลาง	น้อย	ไม่เลย
1. อาบน้ำด้วยตนเอง					
2. แต่งตัวด้วยตนเอง					
3. นั่งและลุกขึ้นจากเก้าอี้					
4.....					
5.....					
6.....					
7.....					
8.....					
9.....					

BIOGRAPHY

NAME	Miss. Uraiwan Boonphadh
DATE OF BIRTH	5 March 1972
PLACE OF BIRTH	Suratthani, Thailand
INSTITUTIONS ATTENDED	Prince of Songkla University, 1994 Bachelor of Nursing Science Mahidol University, 2005 Master of Nursing Science (Adult Nursing)
RESEARCH-GRANT	Support in part by the Thesis Grant, Faculty of Graduate Studies, Mahidol University
POSITION & OFFICE	1994-1998, Division of Nursing, Thachana Hospital, Suratthani, Thailand Position: Registered Nurse 1998-Present, Division of Nursing, Tharongchang Hospital, Suratthani, Thailand Position: Registered Nurse