STRESS, COPING RESOURCES, AND CONSTRAINTS AGAINST
UTILIZING COPING RESOURCES OF RELATIVES
OF ADULT PATIENTS IN THE ICU

RUNGRAT WANICHAPICHAT

A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF NURSING SCIENCE (ADULT NURSING)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2000
ISBN 974-665-069-6
COPYRIGHT OF MAHIDOL UNIVERSITY
Thesis
entitled

STRESS, COPING RESOURCES, AND CONSTRAINTS AGAINST
UTILIZING COPING RESOURCES OF RELATIVES
OF ADULT PATIENTS IN THE ICU

Rungrat Wanichapichat
Miss Rungrat Wanichapichat
Candidate

Orasa Panpakdee
Assoc. Prof. Orasa Panpakdee, D.N.S.
Major-advisor

Yupapi Sirapo-ngam
Assist. Prof. Yupapi Sirapo-ngam,
D.S.N
Co-advisor

Liangchay Limlomwongse,
Ph. D.
Dean
Faculty of Graduate Studies
Mahidol University

Yuwadee Luecha
Assoc Prof. Yuwadee Luecha, Ed. D
Acting Chairman
Master of Nursing Science
Faculty of Medicine,
Ramathibodi Hospital
Thesis
entitled

STRESS, COPING RESOURCES, AND CONSTRAINTS AGAINST
UTILIZING COPING RESOURCES OF RELATIVES
OF ADULT PATIENTS IN THE ICU

was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Master of Nursing Science (Adult Nursing)
On November 16, 2000

Miss Rungrat Wanichapichat
Candidate

Assoc. Prof. Darunee Junhavat,
M.Ed.
Member

Assoc. Prof. Orasa Panpakdee,
D.N.S.
Chairman

Assist. Prof. Yajai Sitthimongkol,
Ph.D. (Nursing)
Member

Assist. Prof. Yupapin Sirapo-ngam,
D.S.N
Member

Prof. Liangchai Limlomwongse,
Ph. D.
Dean
Faculty of Graduate Studies
Mahidol University

Prof. Prakit Vathesatogkit
M.D., ABIM.
Dean
Faculty of Medicine,
Ramathibodi Hospital
Mahidol University
ACKNOWLEDGEMENT

I would like to express my deepest gratitude and sincere appreciation to Associate Professor Dr. Orasa Panpakdee, my Major-advisor, for her patience, suggestions, encouragement, support, and continuous valuable guidance throughout this study.

I am sincerely grateful to Assistant Professor Dr. Yupapin Sirapo-ngam my Co-advisor, Associate Professor Darunee Junhavat, and Assistant Professor Dr. Yajai Sithimongkol for their comments to the development, refinement, and completion of my work.

I would like to thank all staff in the medical and surgical intensive care unit at Sawanpracharak Hospital for their assistance, facilitation and valuable advice in collecting all research data. I am also indebted to all the study population for their willingness and cooperation to make this study possible.

My special thanks are given to Mrs. Chooosri Suparungsun, head nurse of the medical intensive care unit at Sawanpracharak Hospital and all my friends there for their encouragement and generosity in providing me with the time to complete my thesis.

I am also thankful to the Department of nursing, Sawanpracharak Hospital for giving the opportunity and scholarship to study here.

Special thanks go to my friends of the master’s degree program at Ramathibodi Nursing No. 21, especially, Miss Wanida Likitsinsopon and Miss Suwatkong Wongjunlongsin for their encouragement and support throughout the course of this study.

Finally, deep thanks go to Mrs. Rungthip Unmai, my sister, for her patience, assistance, and valuable guidance in English writing. Also, I would like to express utmost gratitude to everyone in my family for the love, understanding, encouragement, and great support.

Rungrat Wanichapichat
4036707 RAAN/M: MAJOR: ADULT NURSING; M.N.S.(ADULT NURSING)  
KEY WORDS: STRESS/ COPING RESOURCES/ CONSTRAINTS AGAINST  
UTILIZING COPING RESOURCES/ RELATIVES OF ADULT PATIENTS/ ICU  

RUNGRAT WANICHAPICHAT: STRESS, COPING RESOURCES, AND  

The purpose of this study was to explore stress, coping resources, and constraints against utilizing coping resources of relatives of adult patient in the ICU. Lazarus and Folkman's theory of stress, appraisal, and coping was used as a conceptual framework for this study. The convenient sample of 64 relatives who were spouses, parents or children and were the most significant and closest to the patients was selected to be the informants. All of them visited the patients within the first 2-5 days after admission to the medical and surgical intensive care unit at Sawanpracharak Hospital from May to July, 1999. Two instruments were used in this study: the Demographic questionnaire and Perceived stressful situation, coping resources, and constraints against utilizing coping resources questions. The data were collected by interviewing the informants and were analyzed by using content analysis and reported in terms of percentage.  

Results of the study revealed that the relatives perceived 1-5 stressful situations during the patients' admission to the ICU. Stressful situations appraised by most relatives were perceived severity of the illness (95.3 %), followed by financial problems (57.8 %), disruption of normal routines (23.4 %), decreased stability of the family (21.9 %), and lack of information about patient's diagnosis and plan of treatment (6.3 %). The relatives reported their coping resources including: 1) health and energy: they perceived they were healthy (89.1%); 2) problem-solving skills: the ability to make decisions and choose methods to conduct their routine tasks (62.5%); 3) to plan for problem solving (46.8%), and to seek information (32.8%); 3) social skills: the ability to communicate with people for consulting and ventilating with (92.2%), for seeking help (53.1%), and for seeking information (39.1%); 4) positive beliefs: having hope (67.2%), trust in staff competency (43.8%), spiritual belief (28.1%). Another psychological resource in Thai culture was the concept of “TAMJAI” which helped the relatives cope by accepting the situation of the eventual loss of the patients (32.8%) and strengthening their mind for fighting obstacles (31.1%); 5) social support: having someone to listen to their problems (90.6%), having someone to give advice (78.1%), having financial assistance (34.4%), and having assistance in routine tasks (31.3%); and 6) material resources: receiving reimbursement (81.2%), having suitable accommodations for going to visit patients (81.3%). A few relatives reported that they had certain constraints such as they felt uncomfortable to seek information about the patient's condition from health care providers (6.3%) and there was a limitation of ICU visiting time policy (6.3%).  

The results of this study ought to be used for the information to develop the instruments that can be used to assess the relative's stress, coping resources, and constraints against utilizing coping resources and to plan specific nursing interventions for the relatives of patients admitted to the ICU.
การวิจัยดังกล่าวนี้ มีวัตถุประสงค์ เพื่อศึกษาความเครียด แหล่งประโยชน์ และข้อจำกัดของการใช้แหล่งประโยชน์ในการปรับสภาพความเครียดของผู้ป่วยโรคจิตวิทยาในห้องไอซีบี โดยใช้แบบสอบถามความเครียด การประเมินโทษสัดส่วนและตัดสินใจเพื่อจัดหาแนวทางในการวิจัย ผู้ให้ข้อมูลเป็นผู้ป่วยโรคจิตวิทยาในที่มีความรับผิดชอบกับผู้ป่วยโดยเป็นผู้งานชราบอัด มีอาง หวัด หรือ บุตร ซึ่งเป็นบุคคลที่มีความกังวล และมีความสัมพันธ์ที่ดีกับผู้ป่วยที่ได้รับการรักษาออกจากห้องไอซีบีตลอดจนกับสหทุกข์ โรงพยาบาลศรีนครินทร์ จังหวัดนครราชสีมา ที่ได้รับการสัมภาษณ์ ทั้งนี้การจัดทำข้อมูลสุ่มโดยการสุ่มจากสถานานการที่มีความเครียด แหล่งประโยชน์ในการปรับสภาพความเครียด และข้อจำกัดของการใช้แหล่งประโยชน์ในการปรับสภาพความเครียดอย่างถูกต้องและเหมาะสมของการวิเคราะห์ข้อมูลโดยการวิเคราะห์เนื้อหา และรายงานผลข้อมูลโดยการจัดทำตาราง

ผลการศึกษาพบว่า ผู้ให้ข้อมูลมีการปรับตัวผ่านสถานะการณ์ความเครียดจานวน 1-5 สถานะการณ์ โดยสถานะการณ์ที่ผู้ให้ข้อมูลส่วนใหญ่ได้ใช้ปรับตัวเป็นความเครียด ได้แก่ การรับประทานอาหารและการเข้าห้องป่ายน้ำ (95.3%) รองลงมาได้แก่ ป่วยหาทางการแก้ไข (57.8%) การรอคอยการรับบริการ (23.4%) สภาพการสุขภาพของผู้ป่วย (21.9%) และการไม่ได้รับข้อมูลเกี่ยวกับการวิจัยของผู้ป่วยและการรักษาทางการแพทย์ (6.3%) ผู้ให้ข้อมูลมีแหล่งประโยชน์ในการปรับสภาพความเครียด ดังต่อไปนี้ 1) การสนับสนุนทางอารมณ์ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 2) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 3) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 4) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 5) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 6) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 7) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 8) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 9) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 10) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 11) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 12) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 13) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 14) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 15) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 16) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 17) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 18) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 19) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%) 20) การสนับสนุนทางกายภาพ เช่นการสนับสนุนทางกายภาพเป็นต้น (88.1%)
# CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vii</td>
</tr>
<tr>
<td>CHARTERS</td>
<td></td>
</tr>
<tr>
<td>I INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>Background and rationale</td>
<td>1</td>
</tr>
<tr>
<td>Conceptual framework</td>
<td>8</td>
</tr>
<tr>
<td>Research questions</td>
<td>10</td>
</tr>
<tr>
<td>Objectives</td>
<td>10</td>
</tr>
<tr>
<td>Scope of the study</td>
<td>11</td>
</tr>
<tr>
<td>Expected outcome and Benefit</td>
<td>11</td>
</tr>
<tr>
<td>Assumptions</td>
<td>11</td>
</tr>
<tr>
<td>Definition of terms</td>
<td>12</td>
</tr>
<tr>
<td>II LITERATURE REVIEW</td>
<td></td>
</tr>
<tr>
<td>The significant role of family members of critically ill patients</td>
<td>13</td>
</tr>
<tr>
<td>Stress, coping resources, and constraints against utilizing coping resources</td>
<td>16</td>
</tr>
<tr>
<td>Stress and coping resources of relatives of critically ill patients</td>
<td>24</td>
</tr>
<tr>
<td>III MATERIALS AND METHODS</td>
<td></td>
</tr>
<tr>
<td>Population and sample</td>
<td>33</td>
</tr>
<tr>
<td>Instruments</td>
<td>34</td>
</tr>
<tr>
<td>Protection of Human subjects</td>
<td>36</td>
</tr>
<tr>
<td>Data collection</td>
<td>36</td>
</tr>
<tr>
<td>Data analysis</td>
<td>37</td>
</tr>
<tr>
<td>IV RESULTS</td>
<td>39</td>
</tr>
<tr>
<td>V DISCUSSION</td>
<td>83</td>
</tr>
<tr>
<td>VI CONCLUSION</td>
<td>102</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>109</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>121</td>
</tr>
<tr>
<td>Questionaires</td>
<td></td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>126</td>
</tr>
<tr>
<td>List of experts consulted on validation of the instruments</td>
<td></td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>127</td>
</tr>
<tr>
<td>Consent to participate in research study</td>
<td></td>
</tr>
<tr>
<td>BIOGRAPHY</td>
<td>128</td>
</tr>
</tbody>
</table>
LIST OF TABLES

TABLE

1. Characteristics of adult patients in the ICU ............................... 41
2. Characteristics of relatives of adult patients in the ICU .............. 42
3. Number and percentage of stressful situations appraised by relatives of adult patients in the ICU .................................................. 43
4. Personal resources of relatives of adult patients in the ICU regarding physical resource: health and energy ........................................ 53
5. Personal resources of relatives of adult patients in the ICU regarding competencies: problem-solving skills ........................................... 57
6. Personal resources of relatives of adult patients in the ICU regarding competencies: social skills ..................................................... 64
7. Personal resources of relatives of adult patients in the ICU regarding psychological resources ......................................................... 67
8. Environmental resources of relatives of adult patients in the ICU regarding social support ................................................................. 73
9. Environmental resources of relatives of adult patients in the ICU regarding material resources ......................................................... 79
10. Constraints against utilizing coping resources of relatives of adult patients in the ICU ................................................................. 81
CHAPTER I

INTRODUCTION

Background and Rationale

The concept of holistic nursing views a person as a unit of harmonizing mind, body, spirit, and society (Hanucharurnkul, 1995: 2). Therefore, according to this concept, caring for the patient does not mean just focusing on aspects of physical illness but means that nurses should care for the patients as a bio-psychosocial person and be concerned about the patient's thoughts, feelings, emotions, surrounding society, belief, culture, and environment. The family is a primary social unit for the person as family members help each other perform social roles. When a person gets ill, family members take responsibility to help and care for the patient. Thus, the family is accepted as a social resource of the patient.

"The illness or injury of one family member influences all members of the family" (Hartshorn, et al., 1993: 14). Therefore, admission of the loved one to the intensive care unit (ICU), which most people perceive as a place where the patient is likely to be in a severe life-threatening situation, is a stressful situation for the rest of the family, especially when a serious illness strikes suddenly without warning. For the relatives of patients with life-threatening conditions, the major source of stress is the fear of the loss of their loved one or the possibility of a permanent disability of the ill member (Meisel, 1991: 20). The ICU environment, the patient’s appearance, the ICU
visiting policy, financial problems, and changes in roles and responsibilities may also cause stress in the family.

The environment of the ICU can create stress to family members because they are not accustomed to the strange equipment and are afraid of the monitoring and multiple lines attached to the patients (Hudak, et al., 1994: 50). The hurried atmosphere also makes families feel unwelcome in the ICU. The patients sometimes are intubated or unconscious, so it is difficult for relatives to communicate with them (Meisel, 1991: 21). The limitation of ICU visiting time causes to limit the time they can stay with the patients (Moser & Dracup, 1992: 2262). They can not ask for information from the ICU staff who are very busy (Gibbon, 1988: 1026). Another cause of stress in the families is financial problems related to the cost of hospitalization, loss of income and extra living expenses during critical illness (Bartz, 1995: 1748). In addition, the change of role and responsibility in which they become responsible for the patient before the illness may cause stress to them (Busch, 1982: 29). Moreover, some family members may also face problems of transportation (Hodovanic, et al., 1984: 245) as a result of the long distance between the hospital and their home.

According to Lazarus's stress and coping theory, "stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being" (Lazarus & Folkman, 1984: 19). When people appraise the situation as stress, they use cognitive and behavioral efforts to manage this situation. Therefore, admission of the patients to the ICU is a stressful situation in which the relatives might appraise differently. Cognitive appraisal of relatives is determined by personal and situational
factors. Relatives who appraise this situation as stress, use coping strategies that depend on the resources that are available to them and the constraints that inhibit the use of these resources.

In the ICU, staff usually gives direct care to the unstable and critically ill patients who need immediate decisions and nursing intervention. Consequently, they might overlook the important role of family members. Nurses must realize that family members are a social support for the patients (Winger, et al., 1992: 307), provide emotional support, and tangible assistance (Kleeman, 1994: 200; Leske & Heidrich, 1996: 93). They play important roles to help and encourage patients to confront the crisis situation. Family support is the major force to help patients recover (Gurley, 1995: 40). Obviously, having family members available to fill in and personalize the life picture of the patient is a significant factor which provides the opportunity for the staff to view the patient more comprehensively (Dunkel & Eisendrath, 1989: 259). Another role of family members is to make decision for the patients in a crisis situation. However, if the family members experience a high level of stress, they can not encourage and support the patients. From the researcher's experience of working in the ICU for eight years, most family members used various coping strategies including crying, seeking information from staff, and staying near the patients. Coping strategies they use depend on resources that are available to them.

Coping resources include health and energy as a physical resource, positive belief as a psychological resource, problem-solving skills and social skills as competencies, and social support and material resources as environmental resources (Lazarus & Folkman, 1984: 159). In addition, coping is also determined by constraints that mitigate the use of resources. Personal constraints mean internalized
cultural values and beliefs that forbid types of action or feeling and psychological deficits. Environmental constraints refer to constraints that come from the environment in which people compete with others for the same resources. In addition, a high level of threat can also play a role in determining how well people cope. It can prevent a person from the effective use of coping resources (Lazarus & Folkman, 1984: 165-170).

A review of the literature concerning stress in family members of critically ill adults revealed that most studies have focused on stress and coping in samples of spouses and other relatives of patients with cardiac disease and parents of children admitted to the intensive care unit. In 1973, Skelton & Dominian (1973: 101-108) found that 65 wives of husbands admitted to a coronary care unit (CCU) experienced feelings of loss, depression and guilt. Later Mayou, et al. (1978: 655-701) found that 95% of 82 wives of patients with first myocardial infarction (MI) experienced stress. They faced many problems while their husbands were in the hospital, such as problem of transportation to visit the patient and making arrangements for the children.

In addition, the study by Covinsky, et al. (1994: 1839-1844) revealed that 29% of families of seriously ill patients reported that they lost a major source of income. Nearly one third reported losing most or all of the family savings. Launkaow (1979) studied stress in relatives of critically ill patients who were admitted into a general ward. It was found that relatives suffered severely from stress because of fear of loss of the patients. Bedsworth & Molen (1982: 450-456) and Caplin & Sexton (1988: 31-40) investigated stress in spouses of patients with MI admitted in CCU. They found that spouses experienced stress related to the patients’ condition. They were afraid that they might lose their spouses. Collins’ s study (Collins, et al, 1996:}
4-13) also indicated that spouses with husbands awaiting heart transplants were faced with stress related to the transplant experience such as the fear that the patient might die or the uncertainty of not knowing when the transplant would take place. Dhooper (1983: 15-31) reported that 40 spouses of patients who had suffered from their first heart attacks coped with the emotional strain of the crisis in several ways, including passive acceptance, expressing feelings by talking to others, seeking information about the medical condition of the sick member, reassurance from physicians and others, and praying. Spouses also suffered from such symptoms as sleeplessness, loss of appetite or indigestion, headache, restlessness, and irritability. The study by Nyamathi (1987: 86-92) indicated that about 58% of the wives of patients with MI sought help from friends and family and also asked doctors, nurses, and other individuals for information about the care of the patients. Yeh, et al. (1994: 106-111) studied how 31 spouses of patients with MI admitted to the coronary care unit coped and found that they used a combination of problem-focused and emotion-focused coping strategies. Seeking social support was the most frequently used.

Studies of parental responses to children admitted to a pediatric intensive care unit (PICU) found that parental role alteration, the child’s behaviors and emotions are major sources of stress among them (Chaisom, 1993; Eberly, 1985: 57-65; LaMontagne & Pawlak, 1990: 416-421; Miles, et al., 1989; Riddle, et al, 1989:221-223). LaMontagne & Pawlak (1990, 416-421) also found that all of the parents used a combination of both problem and emotion-focused forms of coping. The study by Vroran (1992) indicated that perception of uncertainty in illness of parents with children admitted in ICU was negatively correlated with the confrontive coping behaviors, but was positively correlated with emotive and palliative behavior.
However, these studies were studied mostly outside Thailand, so they were limited in generalization because of the differences in culture, belief, and life style.

Although the study of stress in family members of critically ill adults (Launkaow, 1979) and the study of stress and coping of parents of critically ill children (Chaisom, 1993) have been investigated in Thailand where these two studies used close-ended questions to collect the data, the setting of the study of Launkaow was in general ward. As a result, it might not be generalized to relatives of adult patients who were admitted to the ICU because the characteristics of stress may be different. Similarly, the study by Chaisom (1993) investigated samples of parents of critically ill children. It indicated that the results were different due to the difference in the roles and responsibilities between critically ill adults and critically ill children. In addition, the specific study of coping resources of relatives of adult patients in the ICU is limited. A review of the literature indicates that there has been no report of constraints against utilizing coping resources.

In this study, the researcher needs to know what stress that the relatives experience when their adult family members admitted to the ICU, what factors that help them cope, and what factors that inhibit the use of their resources when facing stress. Lazarus’s stress, appraisal, and coping theory were used as a conceptual framework. Therefore, stress, coping resources, and constraints against utilizing coping resources are the concept that the researcher uses for developing the instruments in this study. According to the main concept of this theory, cognitive appraisal and coping are processes and they are specific to the situation (Lazarus & Folkman, 1984: 142). Thus, semi-structured open-ended questions are used to help the relatives describe stressful situations, coping resources, and constraints against
utilizing coping resources. The researcher expects that this methodology will allow relatives to give information more freely with their own perception, that is different from previous studies (Chaisom, 1993; Launkaow, 1979). In addition, data will be collected during the first 2-5 days of patient’s admission to the ICU when relatives are probably under high levels of stress.

The results from this study are likely to provide specific and helpful information for nurses to understand and plan an appropriate intervention to prevent and manage stress of those relatives of adult patients in the ICU. An understanding of stress of relatives also allows nurses to feel empathy and accept relative’s behaviors, emotions, and feelings during this period of time and create good relationships with them. This is consistent with the concept of holistic nursing which includes relatives as a part of patient’s society and environment, thus facilitating the patient’s recovery. The information about coping resources and constraints against utilizing coping resources help nurses promote and facilitate the use of coping resources of relatives and reduce the factors that inhibit utilizing of these resources.
Conceptual Framework

A research framework of this study was based on Lazarus’s stress, appraisal, and coping theory. The theory conceptualized stress as a transactional model that views the person and the environment in a dynamic, mutually reciprocal, and bidirectional relationship. The main concepts in this model are stress, cognitive appraisal, and coping.

According to this framework, “stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being” (Lazarus & Folkman, 1984: 19). There are two critical processes influencing psychological stress which are called cognitive appraisal and coping.

Cognitive appraisal is “an evaluative process that determines why and to what extent a particular transaction or series of transactions between the person and the environment is stressful” (Lazarus & Folkman, 1984: 19). Three kinds of cognitive appraisal can be distinguished: primary appraisal, secondary appraisal, and reappraisal. Primary appraisal is the judgement that an encounter is irrelevant, benign-positive or stressful. Stressful appraisals can take three forms: (a) harm/loss, (b) threat, and (c) challenge. Harm or loss refers to the damage the person has already received. Threat refers to anticipation of harms or losses, and challenge refers to events that hold opportunity for mastery or gain. Secondary appraisal is an evaluation in coping resources and options. Reappraisal refers to a changed appraisal due to receiving new information from the environment and/or the person (Lazarus & Folkman, 1984: 53).
Factors influencing appraisal are from both the person and the situation (Lazarus & Folkman, 1984: 55-116). The important personal factors are commitments and beliefs. Commitments represent what is important to people and what is meaningful for him or her. Beliefs that have positive effects on the person’s appraisal are beliefs in which the person has controlled over events. Situational factors are novelty, uncertainty about events, temporal factors (imminence, duration, and temporal uncertainty), and ambiguity (Lazarus & Folkman, 1984: 55-116).

Coping refers to “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984: 141). Coping has two major functions: problem-focused function and emotion-focused function. Problem-focused function aims at doing something to manage the problems which are causing distress and emotion-focused function aims to regulate the distressing emotions (Folkman & Lazarus, 1985: 152). However, the way people cope is determined in part by the resources.

Coping resources can be categorized as: a) primarily properties of the person which include health and energy as a physical resource, positive beliefs as a psychological resource, problem-solving skills and social skills as competencies and b) environment resources which are social and material resources. Coping is also determined by constraints that mitigate the use of resources. Personal constraints mean internalized cultural values and beliefs that forbid certain ways of behaving and psychological deficits. Environmental constraints refer to the resources as finite, so the people have to compete with others to get them or agencies or institutions that thwart coping efforts. Excessive threat disturbs problem-focused forms of coping.
resulting from its effects on cognitive functioning. It can prevent a person from using coping resources (Lazarus & Folkman, 1984: 157-170). Appraised and coping process affects adaptational outcomes. The three basic kinds of outcome are social functioning, morale, and somatic health (Lazarus & Folkman, 1984: 222-225).

Based on the conceptual framework, admission of patients to the ICU is a stressful situation in which the relative might appraise differently, determined by personal and situational factors. The relatives who appraise this situation as stress consequently use coping strategies that depend on the resources that are available to them and the constraints that inhibit use of these resources.

**Research Questions**

The following three research questions were addressed.

1. What are stressful situations appraised by relatives of adult patients admitted to the ICU?

2. What are coping resources of relatives of adult patients admitted to the ICU?

3. What are constraints against utilizing coping resources of relatives of adult patients admitted to the ICU?

**Objectives**

The objectives of this research were:

1. to explore the stress situation appraised by relatives of adult patients admitted to the ICU.
2. to explore coping resources and constraints against utilizing coping resources of relatives of adult patients admitted to the ICU.

Scope of the study

The purpose of this descriptive study research was to study stress, coping resources, and constraints against utilizing coping resources. The sample was relatives of adult patients admitted to the medical intensive care unit and the surgical intensive care unit at Sawanpracharak Hospital, Nakhonsawan, from May to July, 1999.

Expected Outcome and Benefits

The results of this study are likely to help nurses understand stressful situations of relatives of adult patients in the ICU and provide specific and helpful information about coping resources and constraints against utilizing coping resources of relatives. This information can be used in planning appropriate and effective interventions to prevent, reduce, and manage stress in relatives of adult patients in the ICU.

Assumptions

Admission of the patients to the ICU is a stressful situation in which the relatives might appraise differently. Cognitive appraisal of relatives is determined by personal factors and situational factors. The relatives who appraise this situation as stress, consequently use coping strategies that depend on the resources that are available to them and the constraints that inhibit use of these resources.
Definition of Terms

Stressful situations are situations related to the illness and admission of adult patients to the ICU which the relatives of patients appraise as stress as described by themselves.

Coping resources are resources that are available to relatives of adult patients admitted to the ICU and used for coping with situations appraised as stress, including health and energy, positive beliefs, problem-solving, social skills, social supports, and material resources.

Constraints against utilizing coping resources are the constraints that inhibit use of coping resources which are personal constraints and environmental constraints.
CHAPTER II

LITERATURE REVIEW

Literature related to stress, coping resources, and constraints against utilizing coping resources of relatives of critically ill adult patients was reviewed. The topics are presented as follows: 1) the significant role of family members of critically ill patients; 2) stress, coping resources, and constraints against utilizing coping resources; 3) stress and coping resources of relative of critically ill patients.

The significant role of family members of critically ill patients

Family can be described as “all people living within a household, who are related by blood, marriage or adoption” (Roberts, 1983: 8) or defined as “two or more persons who are joined together by bonds of sharing and emotional closeness and who identify themselves as being part of the family” (Friedman, 1998: 9). Therefore, definition of family also includes the relationship of people who are not related by blood, marriage or adoption. Since the family is a dynamic social system that functions in order to nurture, protect, socialize, and develop its member (Broom, 1985: 368), when a family member is critically ill, the family takes responsibility for helping and caring for the ill person.

The significant role of family members of critically ill patients are as follows.
1. Provide emotional support and encouragement that promotes the patients’ recovery and provides the tangible assistance (Kleeman, 1994: 200).

2. Provide the patient with familiar sights and sounds and reinforce normalcy which can relieve the sensory overload and make them feel calmer (Kirchhoff, et al., 1985: 296-304). Hupcey and Morse (1995: 257-280) stated “family members act as linkages between the sick world, the ICU environment, and the outside world.”

3. Function as a resource for nursing staff by giving an opportunity for them to know the patient better because most critically ill patients are intubated and weak. The families can help the nursing staff assess patient more accurately. They can give positive feedback related to the care of the patients which create an environment of mutual trust among the nursing staff, family members, and the patient (Dunkel & Eisendrath, 1983: 259). Significant family members are a valuable resource for the nursing staff, concerning facilitating communication between the patient and staff. They also have a strong influence on the patient’s compliance with treatment and caring (Gillis, 1989: 6). In addition, family members who have been involved with the care of the patient are rich resources for history taking (Wingers, 1994: 306-311). Moreover, the presence of family members in the ICU promotes holistic nursing care because patients are treated within the normal structure of their family system (Kirchhoff, et al., 1985: 298).

Even though families have roles of supporting and fostering the patient’s recovery during critical illness, the family may be affected from the distress of the event and experience crisis causing them not be able to play their significant roles. As Taylor, et al (1993: 137) described “a crisis occurs when coping and defense mechanisms that have been used to solved problems and adapt to change are no longer
effective”. People may experience a high level of anxiety and exhibit disorganized behavior that cause them not to function adequately. Crisis can be classified into two types: maturational crisis and situational crisis.

Maturational crisis occurs when the individual is going through a particular growth and development stage and faced with the conflicts normally associated with these stages, such as conflict with parents and others, physiological changes associated with adolescence, and retirements. Thus, maturational crises are periods requiring role changes (Hendricks, 1985 cited by Aguilera & Messick, 1989: 233).

Situational crisis occurs when an individual or a group of individuals such as family members, experience psychological imbalance caused by a specific external event. Examples of situational crisis include the loss of a job, the loss of a loved one and exacerbation of a medical illness. The loss of a job can cause financial stress and marital conflict. The loss of a loved one can cause bereavement and can also cause financial stress, change of roles of family members, and a loss of emotional support. The exacerbation of a medical illness causes threat of the loss of a loved one. Financial stress and the change of roles of family members often also occur (Benter, 1983: 628).

The seriously ill patient who needs treatment in the ICU, is in a life-threatening situation. This situation can cause severe stress with any family unit (Leske & Heidrich, 1996: 91-102) and severe stress can lead family members to experience crisis. Death, critical illness or other situations that trigger grief and bereavement typically precipitate crisis for most people. Not all people will be in crisis when they are faced with the same stressful situations (Rapoport, 1969 cited by...
Hickey, 1993: 92). However, crisis can be prevented if family members use appropriate coping strategies.

**Stress, coping resources, and constraints against utilizing coping resources.**

According to Lazarus’s stress and coping model, the person and the environment are in a mutually reciprocal, bidirectional relationship (transactional model). This model is concerned with process and change (Lazarus & Folkman, 1984: 325- 326). Lazarus and Folkman (1984: 19) in their book “Stress Appraisal and Coping” stated that stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being (Lazarus & Folkman, 1984: 19). The main concepts in this model are cognitive appraisal, and coping.

**Cognitive appraisal** is defined as “an evaluative process that determines why, and to what extent, a particular transaction between the person and the environment is stressful” (Lazarus & Folkman, 1984: 19). The mental process of judging events regarding their significance for the person’s well being is called primary appraisal and the resources and options available for coping are called secondary appraisal.

Primary appraisals can be one of three types: a) irrelevant, b) benign-positive or c) stressful. If an event is appraised as irrelevant, it means the event does not have any effect on the person’s well being. A benign-positive appraisal means that the event shows a signal of positive outcome. Stress appraisals are of three types: a) harm and loss refers to damage that has already occurred, b) threat means the person
anticipates harm or loss will occur in the future, c) challenge presents opportunities to deal with obstacles or stressful events successfully, whereas the need of resources in this type of appraisal exceeds normal level (Lazarus & Folkman, 1984: 32-35).

Secondary appraisals refer to “an evaluation of coping resources and options” (Cohen & Lazarus, 1983: 608). Cognitive appraisals are continually changing. This process has been called reappraisal. The feedback from environment and the person’s own thought, feelings, and actions influence the change of them (Cohen & Lazarus, 1983: 609). Factors influencing appraisal are from both the person and situation (Lazarus & Folkman, 1984: 55-116). The important personal factors are commitments and beliefs.

Commitments express what is important to individuals and what has meaning for them. “The greater strength of a commitment, the more vulnerable the person is to psychological stress in the area of that commitment” (Lazarus & Folkman, 1984: 58). Beliefs related to appraisal include belief about personal control, beliefs about existential beliefs, and specific beliefs. Belief about personal control means that people feel confident of their powers of mastery over the environment which can result in challenging appraisal and stress reduction. Existential beliefs such as faith in God or fate, are general ones that help people create meaning out of life, even out of harmful experiences, and to maintain hope. Specific beliefs such as beliefs in a physician or a particular medicine are involved with some specific situations which a person’s psychological or physical stake is at risk. For example, the person’s belief in the physician’s expertise and their treatment will result in a positive affect and generate confidence or hope (Lazarus & Folkman, 1984: 55-81).
Situational factors are also important factors influencing appraisal. These include novelty, uncertainty about events, temporal factors, and ambiguity of situation. If some aspects of a novel situation have been previously linked with harm, it will cause a threat appraisal. Event uncertainty means the probability of certain events happening, such as a 15 percent chance of a tumor recurring or an 80 percent chance of rain. It increases threat because the person can not predict what will happen or what is likely to happen. Three temporal situational factors are imminence, duration, and temporal uncertainty. Ambiguity is the last of situational factors. This is a vagueness of situation occurring when the needed information is not adequate for appraisal (Lazarus & Folkman, 1984: 82-116).

Coping is defined as “constantly changing cognitive and behavioral efforts to manage situations appraised as stressful” (Lazarus & Folkman, 1984: 141). Coping has two major forms: problem-focused function and emotion-focused function. The aim of problem-focused coping is to manage or alter the problem causing distress, whereas emotion-focused coping aims at regulating the emotional response to the problem (Lazarus & Folkman, 1984: 150-153). In general, people tend to use emotion-focused coping strategies in unchangable situation, whereas they use problem-focused coping strategies in situations which they could change (Lazarus & Folkman, 1980: 219-238).

Coping resources

Coping strategies are influenced partly by the resources that are available or exist as a person’s ability to find necessary resources. There are two categories of coping resources which the person draws on in order to cope with situations appraised as stress. These include the primarily properties of the person (personal resources) and
environmental resources. The primarily properties of the person include health and energy as a physical resource, problem solving skills and social skills as competencies, and positive beliefs as a psychological resource. Social support and material resource are environmental resources (Lazarus & Folkman, 1984:157-170).

1. Primarily properties of the person (Personal resources)

1.1 Health and energy When health status is poor, there is less energy to deal with environmental stimuli which causes stress (Long & Wykle, 199: 101). On the other hand, healthy people have more capacity reserving to handle obstacles of life and can adapt themselves better in the environment (Jatikate, 1976: 29). Health and energy certainly contributes to coping efforts because coping when one feels good is better than when one does not (Lazarus & Folkman, 1984: 159).

1.2 Problem-solving skills are an important resource for coping. They are the ability to search for information, analyze situations, identify the problem in order to generate a choice of action, weigh alternatives to get the desired outcomes, and choose and implement an appropriate plan of action (Janis, 1974; Janis & Mann, 1977 cited by Lazarus & Folkman, 1984: 162). Problem-solving skills can be drawn from various resources such as person's experiences, knowledge, cognitive use of knowledge, and the capacity for self-control (Lazarus & Folkman, 1984: 163). A person who has skills in problem solving has coping resource for dealing with stress or problems. The study by Toolbert & Glasgow (1991: 71-85) found that 126 patients with type II diabetics who had a high ability to solve problem had more dietary and exercise self care than patients with less skills.

1.3 Social skills are one of the important coping resources. They refer to "the ability to communicate and behave with others in ways that are socially
appropriate and effective" (Lazarus & Folkman, 1984: 163). Social skills help a person solve any problems related to communicating with others and give them more control over social interactions. In the study of the effect of social skill training with instructions in 32 peer rejected boys, Bierman, et al (1987: 194-200) reported that peer rejected boys who had been given instructions and reinforcement in specific social skills promoted, maintained positive peer interactions for six weeks after treatment. This finding indicated that social skills resources helped people deal with the problem of poor relationships with others.

1.4 Positive beliefs include general beliefs about control, specific beliefs, and existential beliefs that create hope and sustain coping efforts when facing the most stressful experience (Lazarus & Folkman, 1984: 159-162). Beliefs about personal control mean that people assume that the outcome of events can be controlled. Specific belief can create hope for the individual. For example, hope can arise from a person’s belief in efficacious treatment or physician’s competencies. The existential beliefs can also generate a hope. The study by Northhouse (1989: 276-284) indicated that positive attitude and religious belief were the factors that helped 50 mastectomy patients and their husbands cope with the illness. The study by Hirth & Stewart (1994: 31-48) indicated that when cardiac transplant candidates had hope, they coped with stress more effectively. Additionally, the study by Parnumasmonton (1991) of notified leukemic patients and the study by Choowattanpakorn (1988) of lymphohemopoietic patients revealed that these patients could adapt well when they had hope. The motivational property of commitments is also an important resource that is included in this category because it has an effect that is similar to positive beliefs that generate hope and help sustain coping effort. The very strength of
commitment can impel a person toward a course of action that can reduce threat and help sustain coping efforts in the face of obstacles (Lazarus & Folkman, 1984: 61).

2. Environmental resources

2.1 Social support refers to “the nature of the interactions occurring in social relationships, especially how these are evaluated by the person as to their supportiveness” (Lazarus & Folkman, 1984: 249). Three types of functions of social support are emotional support, informational support, and tangible support. Emotional support includes intimacy, attachment, reassurance, and counting on others which causes the feeling of love and care. Informational support includes information or advice that are given to a person which could help him solve problems and provide feedback about how a person is doing. Tangible support refers to direct aid or services and loans, gifts or goods (Schaefer, et al., 1982: 385-386). Tangible and informational support may also function as emotional support as when they show signs of caring and are not viewed as obligation. People will have better morale, health and function, if they receive or believe that they will receive social support when it is needed (Lazarus & Folkman, 1984:250).

Several studies indicate that social support has a positive effect on psychological distress. The study by Baillie, et al. (1988: 217-222) found that the caregivers of the elderly who had low social support were at high risk of psychological distress or depression. Similary, the study by Kulic and Mahler (1993: 43-63) found that coronary artery bypass surgery patients who were higher in emotional support, experienced less emotional distress and complied more with behavior recommendations. Moreover, the study by Friedman and King (1994: 455-440) reported that greater emotional support was related to a greater positive affect and
satisfaction with life of older woman with heart failure and greater tangible support was related to a less negative effect among them. In addition, social support affects individual's adaptation. The study by Benjakul (1995) reported that social support had a positive influence on adaptation of post renal transplant patients and the study by Ritudom (1994) revealed that there was a positive significant correlation between spouse support and quality of life of cancer patients receiving chemotherapy after mastectomy.

2.2 Material resources refer to "money and the goods and services that money can buy" (Lazarus & Folkman, 1984: 164). The more financial resources a person has, the more options they have to deal with a stressful situation because it is easier to access legal, medical, and other assistance. Financial resources reduce the person's vulnerability to threat, thus, they also facilitate effective coping (Lazarus & Folkman, 1984: 164). The study by Kongpan (1990) found that confidence in family problem solving and reframing family problems were significant and positively related to the monthly income of the mother of a hospitalized child. In addition, the study by Tantisak (1992) found that there was a significantly positive correlation between monthly income and quality of life in Systemic Lupus Erythematosus patients. Moreover, the study by Small & Graydon (1993: 239-246) reported that even though the course of their illness was unpredictable, patients with chronic obstructive pulmonary disease could well take care of themselves because they had financial security.

Constraints against utilizing coping resources

Coping also depends on constraints that inhibit use of these resources in the context of the specific encounter. Even though the person has adequate resources,
he/she may not use them because it may create some conflicts and distress. Factors that restrict the ways an individual deals with the environment are called constraints against utilizing coping resources (Lazarus & Folkman, 1984: 165). Constraints come from personal agendas and the environment. In addition to these constraints, the level of threat the person experiences also plays a role in determining coping.

1. Personal constraints are internalized cultural values and beliefs that forbid types of action or feeling and psychological deficits that are a product of the person’s unique development. For example, people do not use social support because they may feel needy, helpless or obligated. They may distrust the motive behind the help. Another example of personal constraints is fear of failure or fear of success. It interferes with coping when there is a possibility of the result being evaluated (Lazarus & Folkman, 1984: 165).

2. Environmental constraints mean constraints that come from the environment in which people compete with other for the same resources or the agencies or institutions that inhibit coping efforts (Lazarus & Folkman, 179). The study of Dill, et al. (1980: 503-509) about the impact of environment on the coping efforts of 43 low-income mothers showed that the environment inhibited low-income mother’s efforts to master stressful circumstances. Public institutions and primarily the public welfare system were unresponsive to subjects’ efforts to cope with adverse situations. One woman discussed the frustration of trying to get appropriate help for her young son who was dyslexic and emotionally disturbed. She tried and failed to get him an early learning ability evaluation through his school. She also tried and failed to have her son placed in an after school day care and in a special school for the learning-disabled. The stress arose because she was not able to obtain the help she needed from
these institutions. When another woman sought psychiatric help for her child, the mental health worker was more concerned about her capacity as a mother than about her worry over her son.

3. Level of threat The high level of threat limits the individual’s problem solving capacities, especially when dealing with complicated cognitive tasks. It causes a person to perceive fewer alternative ways of problem solving, overlook long-term consequences, and search for information insufficiently (Janis, 1993: 70).

In summary, Lazarus’s stress, appraisal, and coping theory conceptualized stress as a transactional model that views the person and the environment in a dynamic, mutually reciprocal, bidirectional relationship. Cognitive appraisal is determined by personal factors and situational factors. The way a person copes is partly determined by the resources that are available or exist as competencies for finding resources that are needed and is also determined by the constraints that inhibit use of these resources in the context of the specific encounter.

Stress and coping resources of relatives of critically ill patients

Stress of relatives of critically ill patients

In a family unit any dysfunction that affects one family member may affect other members as well as the unit as a whole (Friedman, 1998: 5). Thus, when a patient is admitted to the intensive care unit, both the patient and family members must be viewed as facing major life crises (Lynn-McHale, 1988:447). “The more severely patients are injured, the more their families become patients as well” (Hopkins, 1994:35).
A number of factors influence a family’s reaction to sudden illness or trauma are as follows. First, this situation suddenly occurs and is usually new experience for the family, so they have no time to prepare and no direct experience to deal with it. Second, they may have few resources for guidance or support during this time. The third factor is the nature of crisis of sudden illness or trauma. It is usually unpredictable and difficult for them to control, which causes them to feel helplessness and powerlessness. The fourth factor is the degree of disruption to family’s roles, responsibility, and routines and the last factor is the threat of physical harm or death of their loved one. It can cause the most intense reaction for family members (Figley, 1983 cited by Kleeman, 1994: 200). Stress of relatives of critically ill patients may come from patients with life-threatening conditions, environment in the ICU, and impact of critical illness on them.


Bedsworth & Molen (1982: 450-456) investigated the psychological stress of spouses of patients with MI during the immediately following their mates’ admission to CCU. The results revealed that the most frequently reported threat were loss of
their mate, loss of healthy mate, and recurrence of MI. Similarly, Caplin & Sexton (1988, 31-40) found that the highest level of stress of spouses patients in CCU is possibly that the patient will die and seeing the patient sick. In addition, the study by Luankaew (1979) also found that the greatest stress of 150 relatives of critically ill patients who were admitted to the medical, surgical, and pediatrics department in Songkhla Hospital was fear of loss of patients.

Rose (1995: 83-87) explored and described the meanings of critical illness to families. In-dept unstructured interviews tookplace with 18 family members from eight families of ICU patients. The study revealed that eight families described an period of uncertainty during which they unsure whether the patient would survive. Families who obtained positive cues from the patient such as verbal and non-verbal patient behaviors were interpreted as a sign of improvement, went on to “Everything is good” while families who received negative cues from staff which had altered meaning of situation proceeded to “Like living on a roller-coaster” and “experience transition to “there is no hope”. This study suggests that nurses need to increase their awareness of the subjective nature of the process by which families assign meaning to their situation because families’ perceptions of their situation are not always congruent with the staff’s evaluation of the situations. In Collins, et al.’s study (1996: 4-13) of 85 spouses with husbands waiting for heart transplant, they also found that spouses with husbands awaiting heart transplants were faced with a stress related transplant experience and the uncertainty included fear that the patient might die, not knowing when the transplant would take place, not knowing if the transplant would take place, and the wait for the transplant.
Stress caused by environment in the ICU

Environment in the ICU may create stress for family members including unfamiliar medical staff (Atkinson, 1980: 43). The tubes, wires, and machinery to which the nurse is very accustomed frighten family members. They are faced with feelings of helplessness and they are fearful at the bedside of a critically ill patient (Hudak, et al., 1994: 50). Additionally, long periods of waiting and restricted visiting time can also cause stress for them (Rodgers, 1990: 325). Many family members spend long hour in the waiting room because staying near the patient makes them feel better or they can not function as usual due to concern for the patient (Geary, 1979: 59).

The study by Gillis (1984: 103-113) found that one of the major sources of stress with coronary artery bypass surgery as described by 71 spouses was their lack of control of hospital events. They could do little to comfort the patient. They needed privacy, mainly in which to be able to cry. They were distraught from being uninformed and described their frustration with the limited access they believed they had to their attending surgeons, who they thought would be able to answer these questions. The study by Mirr (1991: 228-235) found that visiting restrictions of ICU caused conflicts or power struggles with other family members over sharing time. In addition, the study by Mayou et al. (1978: 699-701) also found that spouses of patients with MI faced the problem with rigid visiting hours in the ICU.

Stress caused by the impact of critical illness  
The relatives of critically ill patients faced problem related to physical disturbances due to the impact of stress. Sleep disturbances and appetite disturbances were frequent symptoms (Dhooper, 1983: 15-31; Mayou, et al., 1978: 699-70; Skelton & Dominian, 1973: 101-
In addition, the impact of a critical illness also causes stress related to finances, changes in roles and responsibilities or problem of transportation to hospital.

In Skelton and Dominic’s study (1973: 101-108) of the psychological consequences of MI on 65 wives of husbands admitted to a coronary care unit, it was found that during the husband’s period in the hospital, one wife abandoned work and ten stopped work temporarily. In 31 cases there was some reduction of the husbands’ income while in the hospital and 19 wives expressed actual anxiety about their financial situation at this time. This finding is consistent with the study of the impact of serious illness on patients’ families (Covinsky, et al., 1994: 1839-1844) in which 29% of families reported loss of the major source of income. Nearly one third reported losing most or all of the family savings. They had to quit work and make another major life change to provide care for the patient.

The study by Collins, et al. (1996: 4-13) indicated that spouses with partners waiting for heart transplants in an ICU reported significantly more socioeconomic stressors which consisted of stressors related to paying medical bills and worrying about medical insurance than spouses with partners waiting for heart transplant outside the ICU. The study by Mayou, et al. (1978: 699-701) also reported that wives of patients with a first MI faced many problems while their husbands were in the hospital, for example, visits to the hospital which was often quite distant, extra household chores and responsibilities, and making arrangements for children. However, 55% of wives were working when their husbands became ill. Only a few stopped working during the acute illness, usually because of visiting problems.

Moreover, Titler, et al.’s study (1991: 174-182) of effect of adult hospitalization in a critical care setting as perceived by spouses and children in the
family. They reported that lack of communication among family members, disruption of normal home routines, and role conflicts were identified by family members as changes resulting from the stressful experience of having a family member in a critical care unit. The study by Dhooper (1983: 15-31) found that changing family routines reflected the sense of strain related household management reported by 70% of the 40 families of patients who had suffer from first heart attack. The study by Johnson, et al. (1995: 238-243) also found that 52 adult ICU family members experienced changes in family roles and responsibilities as the result of critical care hospitalization.

**Coping resources of relatives of critically ill patients**

Since relatives experience stressful situations during the critical illness of their loved one, they dealt with stresses by using both problem-focused coping strategies and emotion-focused coping strategies such as anxiety and fear (Bedsworth & Molen, 1982: 450-456). A way the relatives use for coping reflecting resources that they draw on in order to cope with stressful situations such as their problem-solving skills, social skills, social support or psychological resources.

The study by Dhooper (1983: 15-31) revealed that families of patients who had suffered from their first heart attack coped with stress by using passive acceptance, expressing feelings by talking to others, seeking information about patient’s condition, cutting expenses to the barest minimum, mobilizing the family’s own resources, and shifting responsibilities and tasks of family members. Artenian (1989: 301-308) found that family members of patients undergoing coronary bypass surgery perceived that friends, family, faith in God, and confidence in oneself to overcome difficult times were the most helpful for them during that time. These
findings suggests that social support is an important coping resource and its availability should be included in the nursing assessment of the family unit.

In addition, Nyamathi (1987: 86-91) conducted a qualitative study to examine coping of 40 female spouses whose husbands had been hospitalized with an acute MI. The result indicated that during the husbands’ hospitalization, spouses used behavioral responses to seek physical and emotional support and to control their emotional and physical environment. Seeking help was a significant behavioral response, used by 80% of women. In particular, 58% of the woman sought help from friend and family and questioned doctors, nurses, and other individuals for information about the care of the patient. This finding is consistent with the study of coping in 31 spouses of patients with acute myocardial infarction in Taiwan (Yeh, et al., 1994: 106-111) in which seeking social support was the most frequently used coping strategy.

However, many studies related to stress and coping in parents of children in pediatric intensive care unit also have been reported. The results revealed that parental role alteration and child’s behavior and emotions were found to be stressful aspects of the experience (Eberly, 1985: 57-65; Miles, et al., 1989: 199-205). Later, Heuer (1993: 128-131) surveyed parents who experienced a variety of stressors when their child was hospitalized in intensive care unit. The result in this study differed from the results of previous studies (Eberly, 1985: 57-65; Miles, et al., 1989: 199-205) in which the children’s behaviors was not an area of stress for parents because nurses on the unit gave information immediately to parents that helped them understand the child’s behavior and the visiting policy of the unit was changed. More flexible visiting time reduced the anxiety from separation of their children. Furthermore, the parent role
alteration was also not an area of significant stress for parents in this study because
nurses on the unit included families' participation in child care.

In LaMontagne and Pawlak's study (1990: 416-422) about stress and coping
of parents of children in a pediatric intensive care unit. The researcher developed a
semi-structured open-ended question to interview the parents. Coping was measured
with the ways of coping Questionnaires which were developed by Folkman and
Lazarus (1988). Findings revealed that 50% of the parent subjects identified
predominant stressor that were classified as a loss of the parenting role, 40%
uncertainty over outcome, and 10% information need. Seeking social support and
positive reappraisal were the two most often used strategies by all parents regardless
of the classification of stressors. The study by Chaisom (1993) found that child's
behavior was the biggest stressor for parents of children hospitalized in pediatric
intensive care unit. The reframing family problem sub-scale was the most frequently
used strategy.

In addition, Vrolarn (1992) studied stress in aspect of perception of
uncertainty in illness and also examined coping of 80 parents with children admitted in
ICU. Data was collected by using 3 questionnaires: Parent's perception of uncertainty
in illness (Mishel, 1983), Coping strategies (Jalowiec, 1988) and General well-being
(Dupuy, 1977). Results of the study revealed that perception of uncertainty in illness
was negatively correlated with the confrontive coping behaviors but was positively
correlated with the emotive and palliative behavior, whereas the emotive coping
behavior was negatively correlated with general well-being. This finding indicated
that parent who experienced stress from high perception of uncertainty use less
confrontive coping strategies and use more emotive and palliative coping strategies.
In summary, from literature review, during the time their significant person is seriously ill and admitted to the ICU, the relatives experience stressful situations. Major sources of stress are from patient with life-threatening conditions, environment of the ICU, and effect of critical illness on them. They use both problem-focused forms of coping and emotion-focused forms of coping to handle stresses and draw on resources that are available to them in order to cope with stressful situation they confront. Even though there are some studies related to stress of parents of children admitted in the pediatric intensive care unit, there is the difference of stress between relatives of adult and pediatric patients because of the difference of their role and responsibilities. Stressful situation has not previously been examined in relatives of adult patients in the ICU in Thailand. Little study has been done to explore specifically coping resources and no study related to constraints against utilizing coping resources in relatives of patients in the ICU has been done.
CHAPTER III

MATERIALS AND METHODS

The purpose of this descriptive research is to explore stress, coping resources, and constraints against utilizing coping resources of relatives of adult patients in the ICU. A research framework of this study was based on Lazarus’s stress, appraisal, and coping theory. The research design, subjects, instruments, data collection, and data analysis are presented in this chapter.

Population and sample

The target population of this study was relatives of adult patients who were admitted to the medical intensive care unit (MICU) and the surgical intensive care unit (SICU) at Sawanpracharak Hospital, Nakhonsawan from May to July, 1999. Samples were purposively selected from relatives of patients (one relative: one patient) who met the following study criteria:

a) Relatives of adult patients in the ICU who visited the patients within the first 2-5 days after admission to the ICU.

b) Relatives who were spouses, parents or children and were the most significant and close people to the patients.

c) Relatives were 18 years of age or over and able to communicate in Thai.

d) Willingness to participate in the study.
Setting

The setting for this study was the medical intensive care unit (MICU) and the surgical intensive care unit (SICU) at Sawanpracharak Hospital, Nakhonsawan. There are eight capacity-beds each in MICU and SICU. MICU has six beds for critically ill adult patients and two beds for critically ill children who have medical problems. SICU has seven beds for critically ill adult patients or children who have surgical problems and one bed for critically ill adult patients who have problems related to gynecology and obstetrics. The nursing personnel consist of two registered nurses and three technical nurses or two registered nurses and two technical nurses or one nurse aid a shift. The visiting hours are: 7.30-8.00 a.m., 12.00-1.00 p.m., and 6.00-8.00 p.m. During each visiting period, one or two relatives are allowed to visit the patient. The relatives who do not have a place to stay at night or have no money to stay at a hotel could stay at a temple near the hospital.

Instruments

The instruments used in this study were as follows.

1. The demographic questionnaire was developed by the researcher for this study. It was used to collect information related to the characteristics of the patients and their relatives. Part I. included: the patient’s demographic questionnaire which consisted of information about the patients’ gender, age, and the conditions in which the patients were admitted to the ICU. The equipment used with the patients, the patients’ level of consciousness, duration of admission in the general ward before being transferred to the ICU, and the length of stay in the ICU. Part II. included: the relatives’ demographic questionnaire which consisted of information about relatives’
gender, age, relationship to patient, marital status, educational background, payment, occupation, experience of family members with the ICU, and the day of interview. The data was obtained by the tape-recorded interview with the informants and collecting some related data from medical records.

2. Perceived stressful situation, coping resources, and constraints against utilizing coping resources questions These questions were the semi-structured open-ended questions which were developed by the researcher based on Lazarus's stress, appraisal, and coping theory. The informants were asked to describe their perceptions, feelings, and concerns about the situation of patient's admission to the ICU, their coping resources, and constraints against utilizing coping resources during visiting patients 2-5 days after admission of the patient to the ICU. The interview session took approximately 30 to 40 minutes and was tape-recorded.

Quality testing of the instruments

The semi-structured questions which were developed by the researcher were validated for the quality of the instruments by three experts. They were the instructors of medical nursing, ICU medical nursing, and psychiatric nursing. These experts validated the contents of stress, coping resources, and constraints against utilizing coping resources which were reflected in the semi-structured open-ended questions. The researcher conducted a pilot study of ten relatives who had the same characteristic as the informants of this study. The major advisor commented and suggested an interviewing techniques. The questions were adjusted and corrected for completing the data before using it in this study.
Protection of human subjects

The researcher invited the relatives who had volunteered to be the informants of this study and explained the study objectives, the data collecting processes, the benefits of the research outcome to the relatives, and the informants’ right to participate or refuse to participate in the study. Also, they were informed that they had a right to withdraw at any time without prejudice and no effect to the patient’s treatment and nursing care. The informants were reassured that the data would be kept confidential, the results would be reported as group data and after the study was completed, the tape records and transcribed verbatim would be destroyed.

Data collection

Following Faculty of Graduate Studies and Institutional approval, data was collected by using the following procedures.

1. Screening for eligible informants was based on the inclusion criteria. The researcher selected the most significant relatives by asking the patients if they were alert. In case they were unconscious, the researcher selected by asking relatives who visited them on the interviewing day.

2. All eligible informants were approached and before the data was collected, the researcher explained the study objectives, the data collection processes, and the informants’ right to participate in this study.

3. The informants who volunteered to participate in the study followed the interview procedure, which was conducted by the researcher as follows: 1) the demographic questionnaire 2) semi-structured-open ended questions related to relative’s feelings, perceptions and concerns in the situation of patient’s admission to
the ICU, their coping resources, and constraints against utilizing coping resources during visiting patients 2-5 days after admission of patients to the ICU and were tape recorded. The interview process was conducted after the informants had already visited the patient and the informants were ready and felt comfortable to participate. The researcher provided a private and quiet room for the informants to freely describe their feelings, perceptions, and concerns. The researcher also observed their behavioral responses during the interview and recorded them after the end of the interview.

4. The interview lasted approximately 30 to 40 minutes. The researcher recorded the patient's demographic information from medical records on the same day of the interview.

Credibility of data collection

Every word from the tape-recorded interview was transcribed verbatim and the behavioral responses of the informants were recorded immediately after the interview ended. The data was read and examined repeatedly. In the case of incomplete data, the researcher asked the informants to repeat the interview to complete the data which was insufficient on the interviewing day.

Data analysis

1. Demographic data was reported by using descriptive statistics: number, percentage, range, mean, and standard deviation.

2. Content analysis was used to analyze the data of perceived stressful situations, coping resources, and constraints against utilizing coping resources.
(Seaman, 1987: 294). The researcher categorized and coded the data based on the concept of stress, coping resources, and constraints against utilizing coping resources of Lazarus’s stress, appraisal, and coping theory. After that, the themes which were categorized from content analysis were reported in terms of frequency.

**Credibility of data analysis**

1. The researcher **collected** data from the informants who had direct experience in the situation in which their close relatives were admitted to the ICU.

2. The researcher conducted a **pilot study** of ten relatives who had the same characteristics as the informant in this study for developing the researcher’s skill of data analysis. The researcher **analyzed ten examples of informant data by herself and compared the results of the data analysis with the major advisor.** Discussion of data analysis with the major advisor was done for the correction of data analysis. Then, the researcher collected the data from the relatives who were the informants of this study.

3. The data was **analyzed by the researcher and then was validated by the major advisor.** In case of disagreement on data analysis, the co-advisor was asked to validate and make final judgements. In this research, the researcher and major advisor had an agreement on every issue of the data analysis. Therefore, the co-advisor was not asked to validate them.
CHAPTER IV
RESULTS

The findings of the study are presented in this chapter. The demographics of patients and relatives are described. The answers to the three research questions are presented. The questions are: 1) What are stressful situations appraised by relatives of adult patients admitted to the ICU?, 2) What are coping resources of relatives of adult patients admitted to the ICU?, 3) What are constraints against utilizing coping resources of relatives of adult patients admitted to the ICU?

Description of the sample

The sample of the study consisted of relatives of adult patients in the ICU who were parents, spouses or children visiting patients during 2-5 days after the patient’s admission. The informants were obtained from MICU and SICU at Sawanpracharak Hospital, Nakhonsawan. There were 69 informants who met the inclusion criteria and were asked to participate in this study. Three of them refused to be the informant and two of them did not perceive the situation in which the patients were admitted to the ICU as stress. For the first one, the patient’s son had an experience in which his father had been hospitalized many times. Afterwards, he was cured and recovered. He evaluated that his father’s condition was better during the time of the interview. For the second one, the patient’s husband did not perceive this situation as stress because he evaluated that his wife’s condition had become better. She was likely to be transferred to a medical ward soon. Therefore, there were 64 relatives who shared their ideas about perception of stressful situations and their
utilizing of coping resources during patients' admission to the ICU. Forty of them were relatives of patients admitted to MICU and the remainder to SICU. All informants were interviewed by the researcher with the semi-structured open-ended questions. Each of them took about 30 to 40 minutes for the interview.

Characteristics of patients in the ICU

The demographics of adult patients in the ICU are described in Table 1. The majority of the patients were male (56.3%). The mean age and standard deviation were 53.9 and 17.35, respectively. Their ages ranged from 14 to 83 years of age. The major conditions causing the patient’s admission to the ICU were cardiovascular condition (25.0%) and respiratory failure (23.4%). Most of the patients were intubated and were with mechanical ventilators (70.4%). Fifty-one patients were alert (79.7%). The majority (53.1%) were hospitalized 1-3 days before admission to the ICU. Mostly, the patient stayed in the ICU 4-7 days (46.9%).

Characteristics of relatives of adult patients in the ICU

As described in Table 2, 64 relatives were included in this study. Most of them were female (68.8%) and married (76.6%). Their ages ranged from 25-74 years. The mean age and standard deviation were 43.5 and 11.9, respectively. All were Buddhists. The majority (73.4%) had elementary education, and were labourers (34.4%) and farmer (34.4%). About 53% could partially reimburse their medical expenses. Thirty-three relatives were children (51.6%) and 23 were spouses (35.9%). Most of them (92.2%) had no prior experience of a family member being admitted to
the ICU. About 51% of informants were interviewed on the second day of the patient's admission to the ICU and 34.4% were interviewed on the third day.

Table 1 Characteristics of adult patients in the ICU (n=64)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>36</td>
<td>56.3</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
<td>43.8</td>
</tr>
<tr>
<td><strong>Age (Years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td>3</td>
<td>4.7</td>
</tr>
<tr>
<td>21-40</td>
<td>16</td>
<td>25.0</td>
</tr>
<tr>
<td>41-60</td>
<td>16</td>
<td>25.0</td>
</tr>
<tr>
<td>&gt;61</td>
<td>29</td>
<td>45.3</td>
</tr>
<tr>
<td>(Mean = 53.9  SD = 17.35  Range = 14-83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The conditions causing the patient being admitted to the ICU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular conditions</td>
<td>16</td>
<td>25.0</td>
</tr>
<tr>
<td>Acute respiratory failure</td>
<td>15</td>
<td>23.4</td>
</tr>
<tr>
<td>Coma</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>Trauma with injury</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>Gastrointestinal conditions</td>
<td>6</td>
<td>9.4</td>
</tr>
<tr>
<td>Sepsis and septic shock</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Acute renal failure</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>The equipment used with the patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical ventilator:</td>
<td>45</td>
<td>70.4</td>
</tr>
<tr>
<td>via endotracheal tube</td>
<td>36</td>
<td>56.3</td>
</tr>
<tr>
<td>via tracheostomy tube</td>
<td>9</td>
<td>14.1</td>
</tr>
<tr>
<td>O2 therapy equipment</td>
<td>14</td>
<td>21.9</td>
</tr>
<tr>
<td>EKG monitor</td>
<td>18</td>
<td>28.1</td>
</tr>
<tr>
<td><strong>The patient’s level of consciousness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alert</td>
<td>51</td>
<td>79.7</td>
</tr>
<tr>
<td>Coma</td>
<td>13</td>
<td>20.3</td>
</tr>
<tr>
<td><strong>Admission in the general ward before being transferred to the ICU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 days</td>
<td>5</td>
<td>7.8</td>
</tr>
<tr>
<td>1-3 days</td>
<td>41</td>
<td>53.1</td>
</tr>
<tr>
<td>4-7 days</td>
<td>14</td>
<td>21.9</td>
</tr>
<tr>
<td>&gt;7 days</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td><strong>Length of stay in the ICU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 days</td>
<td>14</td>
<td>21.4</td>
</tr>
<tr>
<td>4-7 days</td>
<td>30</td>
<td>46.9</td>
</tr>
<tr>
<td>8-15 days</td>
<td>14</td>
<td>21.9</td>
</tr>
<tr>
<td>&gt;14 days</td>
<td>6</td>
<td>9.4</td>
</tr>
</tbody>
</table>

* Note Each of relatives might have used more than one kind of equipment.
Table 2 Characteristics of relatives of adult patients in the ICU (n=64)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>31.1</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>68.8</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-40</td>
<td>30</td>
<td>46.9</td>
</tr>
<tr>
<td>41-60</td>
<td>27</td>
<td>42.2</td>
</tr>
<tr>
<td>&gt;61</td>
<td>7</td>
<td>10.9</td>
</tr>
<tr>
<td>(Mean = 43.5  SD = 11.9  Range = 25-74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buddhism</td>
<td>64</td>
<td>100.0</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>6</td>
<td>9.4</td>
</tr>
<tr>
<td>Married</td>
<td>49</td>
<td>76.6</td>
</tr>
<tr>
<td>Widowed/divorced/separated</td>
<td>9</td>
<td>14.1</td>
</tr>
<tr>
<td>Educational background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Education</td>
<td>7</td>
<td>10.9</td>
</tr>
<tr>
<td>Primary school</td>
<td>47</td>
<td>73.4</td>
</tr>
<tr>
<td>High school</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Certificate &amp; Diploma</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>5</td>
<td>7.8</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government officer</td>
<td>5</td>
<td>7.8</td>
</tr>
<tr>
<td>Trader</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>Labourer</td>
<td>22</td>
<td>34.4</td>
</tr>
<tr>
<td>Farmer</td>
<td>22</td>
<td>34.4</td>
</tr>
<tr>
<td>Housewife</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Unemployed</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Payment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reimbursement</td>
<td>11</td>
<td>17.2</td>
</tr>
<tr>
<td>Partial reimbursement</td>
<td>41</td>
<td>53.1</td>
</tr>
<tr>
<td>Self paid</td>
<td>12</td>
<td>18.1</td>
</tr>
<tr>
<td>Relationship to patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>33</td>
<td>51.6</td>
</tr>
<tr>
<td>Spouse</td>
<td>23</td>
<td>35.9</td>
</tr>
<tr>
<td>Parent</td>
<td>8</td>
<td>12.5</td>
</tr>
<tr>
<td>Experiences of the family member with the ICU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>59</td>
<td>92.2</td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>7.8</td>
</tr>
<tr>
<td>The day of interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; day of patient’s admission to the ICU</td>
<td>33</td>
<td>51.6</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; day of patient’s admission to the ICU</td>
<td>22</td>
<td>34.4</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; day of patient’s admission to the ICU</td>
<td>9</td>
<td>14.1</td>
</tr>
</tbody>
</table>
Research Question 1

What are stressful situations appraised by relatives of adult patients admitted to the ICU?

As presented in Table 3, situations appraised by relatives as stress during visiting the patients the first 2-5 days of patient's admission to the ICU were categorized into five situations. A total of 64 relatives appraised at least one stressful situation. The perception of severity of illness was a stressful situation appraised by most relatives (95.3%), followed by situations which were the effect of it and admission to the patient to the ICU including financial problems (57.8%), disruption of normal routines (23.4%), the decreased stability of the family (21.9%), and lack of information about patient's diagnosis and plan of treatment (6.3%).

Table 3  Number and percentage of stressful situations appraised by the relatives of adult patients in the ICU (n = 64).

<table>
<thead>
<tr>
<th>Stressful situations</th>
<th>Number*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived severity of illness</td>
<td>61</td>
<td>95.3</td>
</tr>
<tr>
<td>Financial problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical expenses</td>
<td>18</td>
<td>28.1</td>
</tr>
<tr>
<td>Other expenses incurred in visiting the patients</td>
<td>14</td>
<td>21.7</td>
</tr>
<tr>
<td>Loss of incomes</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>Debt</td>
<td>9</td>
<td>14.1</td>
</tr>
<tr>
<td>Disruption of normal routines</td>
<td>15</td>
<td>23.4</td>
</tr>
<tr>
<td>Concern with routine work</td>
<td>8</td>
<td>12.5</td>
</tr>
<tr>
<td>Concern for other family members</td>
<td>7</td>
<td>10.9</td>
</tr>
<tr>
<td>Decreased stability of the family</td>
<td>14</td>
<td>21.9</td>
</tr>
<tr>
<td>Lack of information about patient's diagnosis and plan of treatment</td>
<td>4</td>
<td>6.3</td>
</tr>
</tbody>
</table>

* Note Each of relatives might have had more than one the stressful situation.
Data showing relatives' appraised situation as stress are as follows:

1. **Perceived severity of illness**

   As shown in Table 3, perceived severity of illness was a stressful situation appraised by 95.3% of relatives (61 out of 64). They evaluated that the patients were in a life-threatening situation or might die. This serious illness of patients were the situation that affected relatives' well being because patients were the most significant people to them. Based on the interview, there were five factors influencing relatives' perceived severity of illness. These included: a) the perception that patients' appearance showed their severe conditions, b) the ICU was a symbol of critically ill patients, c) the perception that this situation had not been experienced before and occurred without warning, d) receiving information about patients' prognosis from doctors who treated the patients and from experience with their siblings was admitted to the unit, and e) the uncertainty about the chance of the patient's survival. Perceived severity of illness was reflected in the way relatives described their feeling during that time. For example, they felt worried, frightened, shocked, upset, and sad, as in the following examples.

   **The patients' appearance showed their severe conditions** Relatives appraised the situation which occurred with themselves as stress since patient's condition showed severe illness such as unconsciousness, significant organ injury and loss of renal function.

   A 37-year-old wife of a 40-year-old patient who was unconscious and received support from a mechanical ventilator described that, "I am so worried, and afraid that he could not make it through. He's never been like this before. He's already been unconscious for three days. I am so scared. My greatest fear is that he's going to die."
A 30-year-old wife of a 32-year-old patient who was conscious and received support from a mechanical ventilator described that, "I feel uncomfortable. I almost fainted. I am not sure whether he could make it or not. He looks very serious. Both his liver and his blood vessels were torn and now he is taking to hemodialysis therapy.

ICU was a symbol of critically ill patients Relatives evaluated that patients' condition was serious. The patient might die. Moreover, they got information from other people that the ICU was a place for caring for patients with life-threatening condition. Also, they made assumptions based on experience of seeing other patients die in the ICU.

A 28-year-old wife of a 37-year-old patient who was conscious and received respiratory support from a mechanical ventilator described that, "I think that he is a serious case, I have heard other people say that only seriously ill patients are admitted to the ICU. I am shocked. I fear that he might die."

A 27-year-old daughter of a 59-year-old female patient who was conscious and on oxygen via nasal canular and took the vasopressured drug (Dopamine) described that, "I was shocked and felt very upset I've never expected it before. At first I thought she would not survive. I was very worried. One thing I was afraid of was that she would die. That's all. I have known that everyone admitted in the ICU must be in a serious condition."

A 55-year-old husband of a 40-year-old patient who was unconscious, had a tracheostomy, and was on a mechanical ventilator described that, "I am so sad seeing her in the ICU. I feel hopeless. I don't think she will recover. I might have some hope if she was outside the ICU. I've seen some ICU patients in other hospitals. They all died...."

Unexperienced situations and sudden occurrence Relatives evaluated that patients' condition was very severe and that they might not survive. Their perception for this situation was a first experienced and had suddenly occurred.
A 37-year-old daughter of a 60-year-old female patient who was conscious and received support from a mechanical ventilator described that,

"I am very upset. It is too sudden. I mean... she is seriously ill and this happened too fast. Normally, she is not as bad as this."

Receiving information about patient’s prognosis Relatives perceived it as a severe situation in which the patient had a chance of dying due to receiving information about the patient’s prognosis from doctors and from experience of siblings being admitted to the unit.

"A 32-year-old wife of a 49-year-old patient who was conscious and received support from a mechanical ventilator described that,

"I couldn’t describe my feelings, but a doctor said that my husband would not survive. The doctor told me to accept that his condition was very bad. Firstly he would be treated with a renal transplant, but it did not work because his heart got bigger and bigger (crying). I feel sad. I am worried about him. I think he will not make it."

A 54-year-old daughter of 81-year-old female patient who was unconscious and received support from a mechanical ventilator described that,

"Sometimes I think that she could not make it through. She is very old. In the past, my husband’s sister had a brain tumor operation, but she died within two weeks. It is the same condition I think."

Uncertainty about the chance of the patients’ survival Most relatives perceived the event with uncertainty, such as uncertainty about the chance of the patients’ survival or uncertainty about the patient’s condition.

A 42-year-old mother of a 14-year-old male patient who was unconscious and received support from a mechanical ventilator described with a very anxious facial expression that,

"I wonder if he would be make it through or not. I am worried about this thing. I am preoccupied with the idea whether he would stay with me or not."

A 50 year-old mother of a 14-year old male patient who was unconscious and received support from a mechanical ventilator described that,
"I am afraid that his condition will get worse. I always keep an eye on him because I fear that he would suddenly get worse, although he is getting better now."

A 74-year-old mother of a 35-year-old male patient who was conscious and received support from a mechanical ventilator described that, "I am still worried if he will survive or not. I am unsure about it. I am afraid that something bad will occur in his body."

Moreover, admission to the ICU of the patient caused one relative who was the patient's daughter to be concerned about the patient's feelings and needs because she could not take care of her mother closely, as in this example.

A 52-year-old daughter of a 72-year-old female patient described that, "I am worried that no one know what she wants and whether she will be lonely or not. I can't stay with her all the time when she needs me... (crying)."

2. Financial problems

As shown in Table 3, 57.8% of relatives (37 out of 64) had financial problems and appraised the situation as stress during the patient's admission in the ICU. Financial problems were categorized as: problems with medical expenses (28.1%, 18 out of 64), problems with other expenses incurred in visiting the patients (21.7%, 14 out of 64), problems with the loss of incomes (15.6%, 10 out of 64), and problems with debt (14.1%, 9 out of 64). This stressful situation was the impact of patients with life-threatening condition until they were admitted to the ICU. It affected the relative's well being due to the importance and necessity of money for their life and other family members. It also affected the treatments of the patients. The relatives were worried that the patients would be treated ineffectively when they did not have enough money. They perceived cost of care in the ICU as very expensive. They did not have enough money to pay for it since they were still in debt.
and had to pay some money for their children. They lost their source of income because the patients who were the breadwinners in the family were seriously ill and they also had to stop working in order to visit and take care of their loved one at the hospital. Additionally, they had other expenses such as transportation and food. Therefore, admission of the patients to the ICU caused them to worry very much about financial problems, as the following examples show:

**Stress caused by increased expenses and debt**

A 25-year-old wife of a 29-year-old patient who was unemployed described that,

"I wish that he could get well soon because the cost of care in the ICU is very expensive and I am poor. He is the only one who supports the family. Sometimes, I am very worried. I have been in debt, as my family leader had an accident."

A 35-year-old daughter of a 56-year-old male patient who was labourer described that,

"I don’t know what to do. I have little money. I had to borrow some money for his treatment. I have to pay for bus fee, food and I have been in debt now since my dad became ill."

A 54-year-old husband of a 53-year-old patient who was a labourer described that,

"I am very worried because if my wife dies, I might not have enough money for her funeral which will cost ten thousand baht a night. I thought all night how I could find it. I have a small income. I can’t borrow money because the interest is high. It is about eight to ten percent."

**Stress caused by a loss of income.**

A 32-year-old wife of a 34-year-old patient who was a labourer described that,

"I only wish that he will get well soon. I also have no money I have to pay some money for my children about expenses tomorrow when he goes to school. And now I have quit my job. Until he recovers, I have to lose so much income (crying). What can I do about food and my child’s expenses?"

Financial problems caused relatives to worry that the patients would not be given an effective treatment. They stated that,
"I worry whether he will be given the best treatment or not if I have no money to pay for it."

"Don’t worry about money. I will try to find it for my son to help him recover with a good drug."

"I have to prepare some money. If they need it and I don’t have it, I am afraid that my son won’t received good care."

3. Disruption of normal routines

Stressful situation appraised by 23.4% of relatives (15 out of 64) was disruption of normal routines. It was classified as concern with routine work (12.5%, 8 out of 64) and concern for other family members (10.9%, 7 out of 64). This stressful situation was affected by serious illnesses and admission to the ICU of the patients. Since relatives had close relationships to patients, they had to visit and take care of the patients at the hospital. This caused them to stop working temporarily. Additionally, they could not take care of other family members such as their children and nephews. Therefore, this stressful situation came from stressful situations regarding perceived severity of illness.

Concern with routine work

"I am worried about my job (a security guard at a university). I thought that if I lost it, I would have found a new one. I am not sure if the university will allow me to go back to work or not after my mom recovers.” The relative described this with an anxious face.

"We have a few people who can visit and take care of my mom at the hospital. We also have some business. I myself have had to stop my work temporarily since Friday and all next week because I have to look after her. I am concerned about my students. I had to ask other teachers to cover my job. I worry about it."

"We are very busy because we have to work. In my family, my husband and my children couldn’t do anything well without me so they have to wait for me only."
"When my dad was ill two days ago, fortunately, it was weekend...but tomorrow I have to face the problem about finding someone to watch over my farm. No one stays and watches over my house because the children have to go to school and I have to go to the hospital."

**Concern for other family members**

"I am concerned about my family. I have all the responsibilities in the family. I have to look after my twin children, my nephews, poultry, and everything. My husband (who stays at home) is not very healthy. He is disabled. He can move only slowly. So I am very worried. Now I have become the family leader and am the only one who takes all the family’s burden."

"I am worried about my two sons. I let my sister take care of them at home."

"I am concerned about my son. On the 14th of this month, I have to take him to a school orientation because my husband can’t do it well."

4. **Decreased stability of the family**

Stressful situation appraised by 21.9% of relatives (14 out of 64) was that of the decreased stability of the family which was affected by the perceived severity of illness that could cause the patient’s death. They would lose their family leader and supporter if the patient died. Even though the patient was still alive, relatives anticipated that there was a chance of losing the patient due to this severe situation and it might cause a great impact. The examples below show stressful situations regarding decreased stability of the family.

"I just wanted to see her (daughter). I stayed with her for a long time. If she dies, I have to face a difficult life. My children already got married, so I don’t want to trouble them. If she dies, I will be in a difficult situation (crying) because she is the only one who supports me. She has three children. I need a lot of money to care for them. I can’t take care of them alone. I hope she can survive."
“My husband died seven years ago. We have four people in our family. If he (father) dies, we will not be able to rely on anyone. If he dies, we will be hopeless and discouraged and we will lose our significant supportive person.”

“I am very upset because he (husband) has never been like this before. Without him, I have no one else. I am worried that his condition will be worse. My daughter can’t help about farming. My sons are married and live with their families. I stayed with my husband only. If he dies, how could I stay alone or make a living? I can’t work alone. If he stays, I can run the family because I have him as a leader. But if I lose him, I can’t imagine how I could stay alone.”

5. Lack of information about patient’s diagnosis and plan of treatment

The stressful situation that was appraised by 6.3% of relatives (4 out of 64) was the lack of information about patients’ diagnosis and plan of treatment. This caused ambiguity and uncertainty about the event which were situational factors resulting in relatives’ appraisal of it as a stressful situation and it affected their well-being. They did not understand what caused their loved ones to be admitted to the ICU, whether they were in danger, or if they had a chance to recover. The following examples show stressful situation regarding lack of information about patients’ diagnosis and plan of treatment.

“I want to talk to a doctor and ask him about the treatment. I want to know whether my husband will recover as before. I want to take him to Bangkok if this hospital cannot treat him. I need some advice.”

“My concern is that…I wanted to know whether a doctor could treat him (husband) or not. I will take him to Bangkok if this hospital cannot treat him.”

“I am so worried about the cause of my wife’s illness because I don’t know about it. I want to get information from a doctor.”

“My worries are… I don’t know how severe the illness is. Well, she (mother) was treated by X-ray but no one told me what caused her illness. I fear that it is difficult to cure her.”
It could be concluded that relatives appraised 1-5 stressful situations. The major stressful situation was the perceived severity of patients' illness. Four situations which included financial problems, disruption of normal routines, decreased stability in the family, and lack of information related to patient's diagnosis and plan of treatment were the impact of the patient’s illness in the ICU.

Research question 2

What are coping resources of relatives of adult patients admitted to the ICU?

Coping resources mean resources that are available to the relatives in this study. They used them to handle the stressful situations occurring during period of patient's admission to the ICU until the day of interview. These consisted of their personal resources and environmental resources. The personal resources included health and energy as a physical resource, problem-solving skills and social skills as competencies, and positive belief and the concept of “Tamjai” as psychological resources. The environmental resources included social support and material resources.

Personal resources

1. Physical resource

Health and energy mean relatives’ physical resources showing their condition of well being and having energy to deal with stress or any problems. As shown in Table 4, the relatives evaluated that they were healthy (89.1%), even though their minds were unhealthy. For example, they described,

"I am all right"

"I have hypertension and have to take some drugs everyday, but I am okay."
"My body is all right, but my mind is not so good. I am concerned very much about it (patient's illness)."

"I am healthy but I am worried. I am very despondent."

**Table 4**  Personal resources of relatives of adult patients in the ICU regarding physical resources: health and energy (n=64)

<table>
<thead>
<tr>
<th>Health and energy</th>
<th>Number*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being healthy</td>
<td>57</td>
<td>89.1</td>
</tr>
<tr>
<td>Having problem with their health</td>
<td>7</td>
<td>10.9</td>
</tr>
<tr>
<td>Eating less</td>
<td>42</td>
<td>65.6</td>
</tr>
<tr>
<td>Decreased sleeping time</td>
<td>50</td>
<td>78.1</td>
</tr>
</tbody>
</table>

* Note: Each of the relatives might have had more than one type of change in health and energy.

Seven relatives (10.9%) evaluated that they were not healthy and that they had some disease such as peptic ulcer, hypertension or some unhealthy conditions such as fainting, as in the following examples.

"My health is rather poor. I have peptic ulcer and I feel under stress about my husband's illness."

"I am not feeling well. I need to take hypertensive drugs."

"I am not healthy. I often have health problems such as catching colds and suffering from fatigue. I have a pain in my uterus when I work hard. I go to see a doctor many times a year."

"I am rather not healthy. I often faint."

According to the data analysis, even though most relatives perceived that they were healthy during the period of patient's admission to the ICU, they evaluated that their health and energy were disturbed by the stressful situations resulting in 65.5% (42 out of 64) eating less and 78.1% (50 out of 64) sleeping less (Table 4). The causes of the change of their eating habits were concerns for their loved one causing a loss of appetite. The relatives' bad sleep and sleeplessness were caused by
concerns about the patient’s condition and problem with expenses. Additionally, they did not get enough sleep because of having to get up early in the morning to visit the patients. One of the relatives described that she felt so much stress that she had to take some drugs to get rid of it. Even though time of data collection was short (the first 2-5 days of visiting the patient in the ICU), some relatives had taken care of the patients many days before being transferred to the ICU. Therefore, these symptoms might have caused the decreasing of their physical resources. These relatives described that they were healthy, but they felt weak because of eating less or not getting enough sleep. Also, headaches and dizziness were symptoms experienced by them.

The examples of data showing relatives’ health and energy related to eating less are as follows:

Eating less  Relatives described that they ate less due to concerns for the patients. This resulted in being unable to eat and a loss of appetite.

“I couldn’t eat. I worried about her (wife). I couldn’t eat because we used to eat together. Sometimes I had already prepared a meal, but I had to leave it.”

“I am so worried about my dad. Now I couldn’t eat very much. I could eat only one time a day...I just drank water. I wasn’t hungry.”

Perceived that they were weak because of eating less  Relatives described that they were weak from being unable to eat and having a loss of appetite.

“I am weak. I couldn’t eat anything. I am not hungry.”

“Just feel tired because right now I couldn’t eat anything.”

The examples of data showing relatives’ health and energy related to decreased sleeping time were as follows.
Sleeplessness, bad sleep, and not getting enough sleep. Relatives described that they slept less due to concerns about the patient’s condition and medical expenses resulting in sleeplessness or bad sleep. They had to get up earlier to visit the patients at the hospital in the morning. Some relatives described that they felt under stress and it caused them to need some drugs.

“We have a little money, but we want him to get a treatment. We don’t know what to do.”

“I am stressed. I confess that I couldn’t sleep well. I go to sleep at one to two o’clock every morning. Moreover, I had to get up early and hurry to the hospital. If I didn’t come, the patient (husband) would complain because the others had visitors. I felt pity for him (cried).

“I haven’t slept well since the day my child came here. I haven’t felt comfortable. Everything is so bad. I can’t accept it.”

“I can’t sleep. I feel under stress. I am afraid of my dad’s situation. Sometimes I had to ask a doctor for some drugs. I told him that I was under stress because of my father’s sickness.”

Perceived that they were unhealthy and weak because of sleeping less

Relatives described that they were not healthy because they did not have enough sleep or they slept late. They also got up early and worried about the patient.

“(health)... is not fine. Sometimes I went back home very late... about one o’clock (a.m.) and went to bed about two o’clock. I had to get up very early, around five to six o’clock.”

“My health is worse because I am worried about my child. I couldn’t sleep well.”

“The cause of weakness might come from less sleep. If the patient (father) got better and I got good news that my child was fine at home, my worry would be reduced. If there is no news from home, I am still usually concerned about my child. Some days I feel very exhausted, but I try to be as strong as I can.”

Perceived that they were unhealthy because of the long term necessary to take care of the patient before they moved to the ICU. Relatives described that
they needed to look after the patient before they came to here. They could not fall asleep for many nights, so they perceived that their health was not good.

"There were many nights before coming here when my mother had to stay at the hospital for a week. It affected my health as well."

"(health) is not fine. I almost could not sleep... four days and four nights."

Perceived that they got headache and were dizzy while the patients stayed in the ICU. Relatives described that they were all right, but had a little headache and dizziness because of worry.

"About my health... that's okay, but I usually got a headache."

"I feel dizzy, so I asked a nurse for some drugs everyday."

"My heart is not comfortable. I am often worried and get neck pains and headaches also."

2. Competencies

Personal resources regarding competencies consisted of problem-solving skills and social skills. Problem-solving skills refer to the relatives' abilities to identify problems, to analyze and evaluate situations to seek information, to plan for problem solving, and to make decisions and choose methods to solve the problems. Social skills refer to the relatives' abilities to communicate appropriately with other people for receiving cooperation and support. According to the interview, a total of 64 relatives in the present study had both problem-solving skills and social skills.

2.1 Problem-solving skills

As presented in table 5, a total of 64 relatives in this study had at least one type of problem-solving skill. According to the data analysis, all of them (100%) had the ability to analyze and evaluate situations. Moreover, 89.1% (57 out of 64) had the
ability to make decisions and choose methods to solve problems, 46.8% (30 out of 64) had the ability to plan for problem solving, and 32.8% (21 out of 64) had the ability to seek information.

Table 5  Personal resources of relatives of adult patients in the ICU regarding competencies: problem-solving skills (n=64).

<table>
<thead>
<tr>
<th>Problem-solving skills</th>
<th>Number.*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to analyze and evaluate situations</td>
<td>64</td>
<td>100.0</td>
</tr>
<tr>
<td>Knowing situations and problems related to the patients</td>
<td>60</td>
<td>93.8</td>
</tr>
<tr>
<td>Knowing situations related to finance, family and work</td>
<td>40</td>
<td>62.5</td>
</tr>
<tr>
<td>The ability to make decisions and choose methods to solve problems</td>
<td>57</td>
<td>89.1</td>
</tr>
<tr>
<td>Management of routine tasks</td>
<td>40</td>
<td>62.5</td>
</tr>
<tr>
<td>Management of financial problems</td>
<td>27</td>
<td>42.2</td>
</tr>
<tr>
<td>Management of patient’s problems</td>
<td>24</td>
<td>37.5</td>
</tr>
<tr>
<td>Appropriate management of time</td>
<td>5</td>
<td>7.8</td>
</tr>
<tr>
<td>The ability to plan for problem solving</td>
<td>30</td>
<td>46.8</td>
</tr>
<tr>
<td>The ability to seek information</td>
<td>21</td>
<td>32.8</td>
</tr>
</tbody>
</table>

* Note  Each of the relatives might have had more than one problem-solving skill.

The examples of data showing that the relatives had personal resources regarding problem-solving skills are as follows:

2.1.1 The ability to analyze and evaluate situations  This ability was classified as knowing situations and problems related to the patients...
(93.8%, 60 out of 64) and knowing situations related to finance, family, and work (62.5%, 40 out of 64).

Knowing situations and problems related to the patients. Relatives could evaluate patients’ conditions from their change to be better or worse and from their observation of the change of life-equipment used on the patients.

The following examples show that relatives had the ability to know the situation by evaluating the patient’s condition.

**Patient’s improvement in condition.**

“I feel that he is rather better... he could raise his hands and feet and his eyes are not dry now.... his hands and feet looked pale in the previous days, but right now, it seems like his blood flows well and his skin color looks better.”

“I think that his condition is much better than yesterday. On the first day of being admitted, he closed his eyes all the times and he often complained about his chest pain. It made me frighten, but right now he can talk to me. The tube was removed from his throat and he was on oxygen.”

**Patient’s worsened condition.**

“I think his condition is worse. He can’t breathe well and feels more exhausted. His shortness of breath was increased.”

“I still feel that he is not better. I don’t know why his face seems black and looks blue. He couldn’t have his meal. His eyes are not bright.”

Knowing situations related to finance, family, and work. Relatives understood the situations related to financial problems, family, and work. They lost their income due to stopping their work resulting from visitation and staying near the patients during the patient’s admission in the ICU. They evaluated that this situation affected family’s incomes in the present and potentially in the future, as the following examples show,
“Actually, It’s a must (farm work) that I do everyday, but when she (mother) is sick, I have to leave everything and pay attention to her only.”

“I have to leave a small store, even though I need some money to pay for my children at school. My income comes from that store. It supports my family day by day.”

“If he (husband) dies, our business must stop because my son can’t handle it. I am afraid that if I lose him, I won’t be able to stand on my own.”

“My family has only three members. One is sick, and another has to look after him. How could we make a living? Also my son is a monk. Not much work, no income and no money.”

2.1.2 The ability to make decisions and choose methods to solve problems According to the data analysis, 89.1% of relatives (57 out of 64) drew on their problem-solving skill resources regarding the ability to make decision to deal with stressful situations which were classified as management of routine tasks (62.5%, 40 out of 64), management of financial problems (42.2%, 27 out of 64), management of patient’s problems (37.5%, 24 out of 64), and appropriate management of time (7.8%, 5 out of 64).

Management of routine tasks Relatives manage their routine tasks or duties when they went to see and take care of the patient at the hospital by asking for leave or asking their kin or friends to take care of their children or farm, as the following examples show,

“Now I have stopped driving a truck, but it does not cause any problems with my boss because I always report to him about my father’s condition.”

“I have to continue not working. My husband takes care of my children.”

“I asked for leave. I will take the physician’s recommendation to show him (boss).”
“I had to ask for a leave since Friday to look after her (mother) and also ask for a leave next week. I left my students with other teachers.”

“I have concerns about everything at home. It’s just about how my children could go to school and come back home. I asked my friends and some relatives to take care of them. Now their aunt helps to take care of them.”

“My children are very young and no one stays with them, so I leave them with my sister.”

“My children are at home. My sister stop her work (construction) in Bangkok to look after them.”

**Management of financial problems**

According to the data analysis, relatives had problem-solving skills regarding the ability to make decisions and choose the methods to solve financial problems. For example, they borrowed some money from others or they reduced their expenses or asked for reimbursement from life insurance company, as the following examples show,

**Management of financial problems by lending or loaning**

“I borrowed some money from my brothers, but they didn’t have much. He could not refuse my request, so he gave it to me. To tell you the truth, I had gold, it weighed two baht (thirty grams). I sold it because I needed some money to spend for my wife’s treatment. Yesterday she had an x-ray, and I had to pay for it, but I didn’t have any money. I told a nurse I had to wait for my sister. I asked her to borrow it from others, then I would pay it back.”

“I don’t know how to solve financial problems because I didn’t have any money. I already borrowed twenty thousand baht from others, but the problem is the high interest.”

**Management of financial problems by saving expenses**

“Every day I have to pay and spend much money. I try to save it very much. Yesterday I had a meal in the morning and I didn’t have lunch. When I went to a temple in the evening, I bought some food for dinner. I had to stay at the hospital for many days and also buy some milk for my child. I could not leave him. I fear that he would cry at night. He would disturb her (the relative who took care of him), so I had to save money.”
"I had to spend money every day. I tried to spend no more than one hundred baht a day."

Management of financial problems by asking for help from insurance company.

"I tried to talk to the insurance agency. He called the insurance company and promised to handle the medical expenses."

Management of patient's problems According to the data analysis, relatives had problem-solving skills regarding management of patient's problems. For example, they asked their kin to buy the patient's drugs. They also asked for a donation of blood to the patient and they asked a doctor for special care, as the following examples show,

"I let my stepdaughter buy some drugs for my son."

"Yesterday a nurse told me that there was an urgent need for some blood for my father. My sister and I gave our blood to him, then I told my sister to go back home to find someone who could donate blood for him. I had seven to eight people to donate their blood to him today."

"I just told a nurse to help him (husband). If he needs a blood transfusion exchange, I told her to get some from the hospital or from others. I would pay for it. No matter how much it cost, I would buy it. I would borrow some money and my daughter would help me, too."

"I asked the doctor to give him (son) special care."

"I let my brother-in-law ask for special care for my son."

Appropriate management of time Relatives could manage or share their time to do their routine task and visit the patient. They managed their routine tasks such as farming in the morning and visiting the patient in the evening. They managed time to visit the patient since they had to do their job, as the following examples show,

"I have to come here (hospital) everyday. I have to go to my farm in the early morning, to turn on the pump before I visit the patient
(son) at mid-day and in the evening so that I could stay with him longer."

"I visited...I couldn't visit her (mother) every day because I have to do my job. But I have a nephew. I asked him to visit her. He usually calls me at home to tell me about her condition. He visits her every time he is allowed to by the staff."

2.1.3 The ability to plan for problem solving  According to the data analysis, relatives had problem-solving skills regarding the ability to plan for problem solving such as planning for problem solving related to finance, planning for problem solving related to caring for the patient when coming back home, planning for visiting the patient, and planning for managing the patient to receive good care, as the following examples show,

Planning for problem solving related to finance

"I have already prepared to solve the financial problem. I didn't have even one baht, but I have two ngan of land. I will sell one half to my neighbor. I will talk to him. I will make some money to pay the medical cost."

"I told him (loaner) ...you must prepare money for me. I will take it to a nurse when she tells me the cost of treatment. I have to prepare it. No matter what problem is, I will help my daughter to survive."

Planning for care for patients when after being discharged from the hospital

"If my mom gets well and comes back home, I will encourage her to exercise. I will read some books about health promotion for the elderly and I will buy Dhamma cassettes for her.

Planning for visiting the patient

"When I came from Chiang-Mai, I couldn't visit my father because a guard didn't allow me. I have already prepared to solve this problem. I will tell him that I come from Chiang-Mai. When I arrive at the ICU, I will ask a nurse...I will tell her politely...I am the patient's son. Could you please allow me to see him?"
Planning for managing the patient to receive good care

“I consulted my brother about transferring my mom to Bangkok, to go to a better hospital, but he said that this is a good hospital. We should wait, her condition might be better.”

2.1.4 The ability to seek information

According to the data analysis, relatives had problem-solving skills regarding the ability to seek information from staff such as information related to the patient’s condition and medication for the patient, as the following examples show,

“I asked a doctor how many days the patient would gain consciousness according to his experience. He said it would take time. He couldn’t tell exactly. He was not sure.”

“If I doubted my father’s condition, I would ask a nurse about his condition and if he would get better or not. And then she would tell me how he was. I would tell my friends about his condition and we would consult each other.”

“I always ask a nurse. Sometimes when she took the blood pressure, I would ask her, for example, how about her blood pressure? Was it normal? Or how many percent she would survive? I need her to tell me the truth. I could accept it all.”

“When I arrived at the ICU, I would ask a nurse. What her diagnosis was. Moreover, I asked her about the expenses. My mom was elderly so I asked for more information like... whether I need to pay the hospital more or not.”

2.2 Social skills

As shown in Table 6, a total of 64 relatives had at least one type of social skill (100%) which was classified as the ability to communicate with people who they trust for consulting and ventilating (92.2%, 59 out of 64), the ability to communicate with other people for seeking help (53.1%, 34 out of 64), and the ability to communicate with other people to seeking information (39.1%, 25 out of 64). The relatives’ ability to communicate with other people for any purpose reflected that they had personal resources regarding problem-solving skills.
Table 6  Personal resources of relatives of adult patients in the ICU regarding competencies: social skills (n=64).

<table>
<thead>
<tr>
<th>Social skills</th>
<th>Number.*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to communicate with people who they trust for consulting and ventilating.</td>
<td>59</td>
<td>92.2</td>
</tr>
<tr>
<td>The ability to communicate with other people for seeking help</td>
<td>34</td>
<td>53.1</td>
</tr>
<tr>
<td>The ability to communicate with other people for seeking information</td>
<td>25</td>
<td>39.1</td>
</tr>
</tbody>
</table>

* Note Each of relatives might have had more than one social skill.

Data showing relatives' social skills are as follows:

2.2.1 The ability to communicate with people who they trusted for consulting and ventilating  According to the data analysis, relatives had the ability to communicate with their kin and neighbours, as the following example describe,

Consulting with their kin

"I would consult my husband. He told me to calm down and make some money little by little. He will borrow it from his sister."

"I talked about money with my daughters. They asked me before then I told them I had some. But they still helped me. I received a little money from each."

"I am very worried about my father. I consulted my mom and my brothers about what we could do."

"It seemed like I consulted her (mother-in-law) and she helped me by giving some advice, so I got an idea and felt better."

"When I had any problems, I consulted with my sister-in-law. I sometimes talked with her. It helped relieve my stress a little bit."
Consulting with neighbours

"I talk about my son every day. My neighbors come to talk with me about what I could do at home everyday. Some of them suggested that I should take my son to Paoloe hospital, some said to stay here, I got someone else suggested I transfer him to a private hospital. Many suggestions from many people. They had various suggestions."

"I only consulted my kin and neighbours. They suggested that if he (son) was not better, I should take him back home."

"I consulted my kin and my family about his (husband) condition. Where will we take him to be cured?"

2.2.2 The ability to communicate with other people for seeking help  According to the data analysis, relatives had the ability to communicate and ask for help such as seeking help from doctor or nurse, seeking help related to finance from kin, and seeking help related to caring about the patients, as the following examples describe,

Seeking help from doctors or nurses

"I told a nurse to help my father. And she said she would do her best. I told her if something was wrong with him, please call me."

"I only asked an attending doctor to save my husband’s life because my child is very young. He said he would do his best."

Seeking help related to finance

"I told my friend who lives near my house that if I did not have enough money, please lend me some."

"I went around to see who could help me. Yesterday I went to see the village leader. He gave me three hundred baht. When I went to see my kin and asked them to help me, they sometimes gave me two hundred or five hundred baht."

"I asked for some money from my children. They were brothers and sisters. They must help each other. I told them to help him."
Seeking help related to caring about patient

"I have a close sibling who works as an accountant on the second floor in this hospital. I told her to visit my husband if she had time."

2.2.3 The ability to communicate with other people for seeking information

According to the data analysis, relatives had the ability to communicate with other people for seeking information such as asking for ICU telephone number and asking staff to give information about patient’s condition.

"I thought that his condition was worse because he (father) was short of breath. I had to hurry home, so I asked a nurse to call me if his condition changed."

"When I asked a nurse for information, she answered every question. When I asked for the ICU’s calling number, she gave it to me.

"I always ask about my mother’s condition from a nurse."

"I think that his (father) condition was worse when he was admitted to here. I questioned a nurse. She said this was the best place for him because it has equipment to support his respiration to be better and there are not many patients in the ICU."

3. Psychological resource is about the positive beliefs that generate the relatives’ hope. Positive beliefs helped them feel better and maintained their coping efforts when faced with a stressful situation during the time of the patients’ admission to the ICU until the day of interview. As presented in Table 7, all relatives (100%) in this study had at least one positive belief. In addition, a psychological resource which was called the concept of “Tamjai” emerged from the data analysis (Table 7). “Tamjai” is a Thai word and it is a concept in Thai culture. The relatives in this study used it as their psychological resource for alleviating their stress. The concept of “Tamjai” was categorized into two aspects: a) Tamjai was used by relatives to accept
a real situation and b) Tamjai was used by relatives to strengthen their mind and fight obstacles.

Table 7  Personal resources of relatives of adult patients in the ICU regarding psychological resources (n=64).

<table>
<thead>
<tr>
<th>Beliefs</th>
<th>Number*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive beliefs</td>
<td>64</td>
<td>100.0</td>
</tr>
<tr>
<td>Having hope</td>
<td>43</td>
<td>67.2</td>
</tr>
<tr>
<td>Trust in staff’s competency</td>
<td>28</td>
<td>43.8</td>
</tr>
<tr>
<td>Spiritual belief</td>
<td>18</td>
<td>28.1</td>
</tr>
<tr>
<td>Having a positive view</td>
<td>18</td>
<td>28.1</td>
</tr>
<tr>
<td>Having commitment</td>
<td>14</td>
<td>21.9</td>
</tr>
<tr>
<td>Trust in treatment and technology</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>used with the patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concept of “Tamjai”</td>
<td>36</td>
<td>56.3</td>
</tr>
<tr>
<td>A way to accept a real situation</td>
<td>21</td>
<td>32.8</td>
</tr>
<tr>
<td>A way to strengthen the mind and fight obstacles</td>
<td>20</td>
<td>31.1</td>
</tr>
</tbody>
</table>

* Note  Each relative might have had more than one type of psychological resource.

Data showing relatives’ psychological resources are as follows:

3.1 Positive beliefs  The positive beliefs of relatives consisted of having hope (67.2%, 43 out of 64), trust in staff’s competency (43.8%, 28 out of 64), spiritual belief (28.1%, 18 out of 64), and having a positive view (28.1%, 18 out of 64). Moreover, 21.9% of relatives (14 out of 64) had commitment and 15.6% of them (10 out of 64) trusted treatment and technology used with the patient.

3.1.1 Having hope  Relatives generated hope and cheered themselves up, as in the following examples.

“I wish my mom to recover.”
"I wish him (husband) to be safe."

"I need him (father) to gain conscious."

"My only wish is just... she (mother) could recover. This is the only thing I want."

"I feel heartened because I wait his (father) renal to be cleaned."

"I hope that he (son) will recover and go back home."

"I still have hope. My hope is that... my mother must recover and her condition will be better."

In addition, their hope arose from the decrease of their goal. This means, even though the patients could not recover to their original condition, they hope that the patients could live and they could take care of them for a while, as two relatives described,

"I would be glad if I could take care of her (mother) for a while after she is discharged. I think... well... if she could be discharged even after she has a tracheostomy or anything else, I could take care of her."

"What I hope is that she (mother) would be back home or stay a little longer."

3.1.2. Trust in staff’s competency  Relatives trusted staff’s competency. They believed that the staff would take good care of the patient, so their hope depended on the staff, as in the following examples.

"Staying with doctors and nurses is like staying with parents, so I am not worried."

"I put my hope in the doctor. I think that I can rely on him."

"I think that he (son) must be better, he has stayed with a doctor and nurses all the time. A doctor is very competent and perfect. He was very kind."

"I think that the doctor and nurses can take care of my mom better than me who is her son. How can I help her? Suppose that her condition is very serious, I would leave her with them and let them do everything."
“When I thought that a doctor and nurse could help my mom, my worry was diminished. I think that it is not beyond their ability.”

3.1.3 Spiritual belief Relatives believed that spiritualism would help the patient. They asked something that they respected to help the patient recover. This helped them have hope, alleviate their stress and feel better, as in the following examples.

“I make merit by giving food to monks every morning. I pray that she (mother) will be recover.”

“I prayed that he would get better day by day. I prayed in front of the image of Buddha and begged him to protect and help my husband.”

“I asked all the divine things for help. I need him (father) to live for a long time.”

“I pray and wish him (husband) survive or get better.”

3.1.4 Having a positive view Relatives had a positive view. They thought positively that the patient would survive and have a chance to recover or improve their condition. This gave them hope, as in the following examples.

“He must be okay... he must be okay. I sometimes told myself that my dad had to be okay, just like that.”

“I thought that perhaps she (mother) could be cured. I think that she must recover. She appears stronger. She could talk with me. I think that she must recover.”

“I think that my husband must recover. I told myself that he will get well because he stays with a doctor.”

“I tried to think he would recover. If I thought that he would not, I could not live. I try to think in a way that I want it to be.”

3.1.5 Having commitment Relatives had commitments which impelled them to fight for their goal. For example, they had commitments regarding the needs of the patient to recover. They were patient and fought for their loved one such as their child and father, as in the following example.
“I wish him (husband) to recover. I will pay the medical expenses no matter how much it is.”

“I think that my mom must make it through. I could do anything for her. We have only two. My sister is far away.”

“I will sell anything for my daughter if it helps her recover.”

“I have to strengthen my mind. I also intend to take care of my mom. I believe that I am strong so I must fight.”

“It is like...first if I am sick whom my daughter lives with, so I think that my daughter is the main thing and also my dad...he is still alive.”

“I could stand difficult thing like this because of my son. If I get sick, how could he live. I had to strengthen my mind. If I die, he must be in difficulty.”

“My strong heart helps me. I am not dispirited. I tell myself I have to fight no matter what happens.”

3.1.6 Trust in treatment and technology used with the patient

Relatives trusted treatment and technology used with the patient. They believed that modern technology in the ICU, such as the mechanical ventilator, would help the patient be better and safe, as in the following examples.

“I think that if the patients who were on mechanical ventilator were admitted in the ICU, he would be safer than being outside because of the readiness of equipment and staff. So when my mom is here, I feel better.”

“The equipment is big. I feel good when seeing it.”

“I think that ICU system is standardized. The treatment is good. The equipment and respiratory supporters look modern.”

“The equipment is good and perfect.”

“I think this is a big hospital and the equipment pleases me.”

3.2 The concept of “Tamjai”

In addition to positive beliefs, the concept of “Tamjai” was considered as a psychological resource which 56.3% of relatives (36 out of 64) in this study drew on in order to cope with stressful situations
during this time. It could help in allaying relatives’ stress, cheering them up, strengthening their mind, and fighting spirit. Therefore, it was an emotion-focused coping strategy. According to the interview, the concept of Tamjai had 2 aspects. Firstly, Tamjai was a way for 21 of 64 relatives to accept a real situation (32.8%). Secondly, Tamjai was a way for 20 of 64 relatives to strengthen their mind and fight obstacles (31.1%).

3.2.1 Tamjai was a way the relatives used to accept a real situation  Relatives used this concept to accept and understand the situation. They viewed this situation according to their religious belief in which sickness and death was a natural part of life and the patient’s karma (good things the patient had done in the past). They let everything go on its way and thought that whatever will be, will be. They perceived that they tried to fight and change the situation to the best of their ability and could prepare themselves for a loss that might occur, as in the following examples.

Tamjai means accepting the situation that whatever will be, will be.

“I tried to think that the illness is so common. Everyone experiences it. That is, when people are sick, they die. It is a common thing. Everyone must face this. No one can live forever.”

“I thought I could “Tamjai” by accepting what happened to my mom. I mean, I still worry about her, but I try to think over and over... What ever will be, will be.”

“Sometimes I felt under seriously stress. I had to “Tamjai”. I think that birth, decay, sickness, and death is a common thing.”

Tamjai means accepting the situation because of the patient’s karma, so they let it go, prepared themselves and accepted the situation.
"I prepare myself for two things. That is, if he (son) dies, I thought, well... he just makes a little merit. But I prepare for it very little."

"I don’t know what to do, I had to “Tamjai” and let him (father) go. Whatever will be, will be. If he dies, I assume that he has run out of karma."

"I let it go. If she (mother) could survive... it is up to her old merits. If she has it, she will stay with me. If she doesn’t have it, I have to accept it."

"I have to “Tamjai”. She (mother) has no merits, then she passes away."

Tamjai means accepting the situation in that they had tried to change the situation the best they could.

"I think that I have to “Tamjai” that she (mother) is very old. I gave her the best treatment that I could."

"I prepare myself for her leaving. No matter if she (mother) will survive or not. I think that she is under the doctor’s treatment. He must help her as much as he can."

3.2.2 Tamjai was a way the relatives used to strengthen their mind and fight obstacles. Relatives cheered themselves up to fight. They made themselves to be strong, and not be discouraged, as in the following examples.

"I had to strengthen myself. If I was weak, it might worry him (husband). I had to show him a happy face, not a sad face."

"If I have a chance to consult with others, I will talk with them for relieving my distress. But if I don’t have it, I will solve this problem by strengthening my mind and trying to fight."

"If I am weak, no one could help me."

"I have to fight. I must be patient."

Environmental resources

1. Social support. Social support is considered as an environmental resource. It means help and support which the relatives in this study received from
three types: a) emotional support refers to the close, confident and trusted relationship between people; b) informational support refers to information, advice, and feedback which help people to solve problems; and c) tangible support which includes help and service or loan money and things. As shown in table 8, a total of 64 relatives in this study had at least one type of social support. All of them (100%) received emotional support, 78.1% (50 out of 64) received information support and 78.1% (50 out of 64) also received tangible support.

Table 8  Environmental resources of relatives of adult patients in the ICU regarding social support (n=64).

<table>
<thead>
<tr>
<th>Social support</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having someone who listens to their problems</td>
<td>58</td>
<td>90.6</td>
</tr>
<tr>
<td>Having someone who comforts, cheers them up and visits the patient</td>
<td>41</td>
<td>64.1</td>
</tr>
<tr>
<td>Informational support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having someone who gives some advice</td>
<td>50</td>
<td>78.1</td>
</tr>
<tr>
<td>Tangible support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having financial assistance</td>
<td>22</td>
<td>34.4</td>
</tr>
<tr>
<td>Having assistance in routine tasks and responsibilities</td>
<td>20</td>
<td>31.3</td>
</tr>
<tr>
<td>Having assistance in patient’s problems</td>
<td>12</td>
<td>18.8</td>
</tr>
<tr>
<td>Having assistance in accommodations and transportation</td>
<td>11</td>
<td>17.2</td>
</tr>
</tbody>
</table>

* Note  Each of relatives might have had more than one type of social support.
The data showing relatives' environmental resources regarding social support are as follows:

1.1 Emotional support  According to the data analysis, 90.6% of relatives (58 out of 64) received emotional support from having someone who listened to their problem and 64.1% of them (41 out of 64) received it from having someone who comforted, cheered them up, and visited the patient.

1.1.1 Having someone who listened to their problems

Relatives had their kin, neighbors or other patients' relatives who listened to their problems. They helped them relieve their distress and share their problems. These could result in the decreasing of their worry.

The following examples showing relatives had someone who listened to their problem.

"I talked with other kin....and my aunt. I felt better, just like if I had a serious problem but I could share it with others. Everyone cheered me up."

"I wouldn't have talked about my father's condition if no one asked me. I kept it in my mind. But when someone asked me about it, I would tell him. I mostly talked with other people such as my neighbors. They asked me about him. It helped me alleviate stress. I mean it helped me ventilate my worries."

"Well, I think I should not worry alone. I talked with others (other patients' relatives). Everyone must face problems. I mean, when I heard other people's problem, I would get an idea that my problem was very little. Mine was just sickness, but theirs were about death."

"If I was worried, I could talk with other people (other patients' relatives). Even though they could not help me, they comforted me."

1.1.2 Having someone who comforted, cheered them up and visited the patients  Relatives received emotional support regarding receiving
encouragement from their neighbors, kin, and other patients' relatives. They comforted, cheered up, and visited the patients. They showed the good points of the event to the relatives, for examples, patients were given close nursing care and they would recover soon. They comforted the relatives not to think so much. Their visitation made the relatives feel heartened because they felt that they were not alone, as in the following examples.

"When I met other people. They all told me "Don't think too much. He (son) stays with doctor and nurses, so he will get well soon." They encouraged me, I mean, my friends. I had good relationships with them. I had no problem with them."

"They consoled me that it already occurred, you should not think too much and you should eat and take care of yourself as well."

"It seemed that they encouraged me. They said it was okay.. it was okay. We did our best. We sent him to doctor and nurses and he is now being admitted to the ICU."

"Only other patient's relative who encourages me. Her husband had Malaria like my son. But he didn't have cerebral malaria. It seemed to affect his lung. His condition is not as serious as her husband."

"I felt heartened...I mean I received encouragement from others who visited him (the patient) or asked about his conditions."

"I didn't worry because my relatives visiting my mom everyday. I felt better. It seemed that they didn't abandoned us."

"I felt warm to know that my friends visited my mom. I felt better and I was rather not worried."

**1.2 Informational support**  According to the data analysis, 78.1% of relatives (50 out of 64) received informational support from having someone such as their kin, neighbors, and other patients' relatives who gave them some advice. They consulted them about the patients' condition, financial problems, and plan for...
taking the patients to other hospital for the best treatment, as the following examples describe,

"I asked someone (other patient’s relative) who was beside me about her mom. I told her about my mom’s condition and then she told me about hers too. We shared our opinions. Sometimes, she cheered me up and I cheered her up as well."

"I consulted my friends and my neighbors. I had heard that her mother’s condition was similar to my mom, so I asked her about it."

"I consulted my aunt and my mom about expenses and selling land."

"I consulted my sister and my husband about their opinions if we were to take the patient to Bangkok."

1.3 Tangible support According to data analysis, 34.4% of relatives (22 out of 64) received tangible support from having financial assistance, 31.3% (20 out of 64) received it from having assistance in routine tasks and responsibilities, 18.8% (12 out of 64) received it from having assistance in patients’ problems, and 17.2% (11 out of 64) received it from having assistance in accommodations and transportation.

1.3.1 having financial assistance Relatives received assistance from their kin and neighbors such as giving or lending some money and helping them loan money, as in the following examples.

"For living expenses during this time, I got it. When my kin and neighbors visited the patient, each of them gave me one hundred to three hundred baht. They all gave it to me."

"They sometimes sympathized with me and gave me some money. Sometimes, when my kin or my daughter’s friend came here, they gave me some money."

"I and my sister shared the expenses. Perhaps she had to borrow some money."

"I asked my sister to borrow some money."
"I borrowed some money from my husband’s relative. He lent me money because he knew that my husband was sick."

"I have a good relationship with my neighbours. Like now, they have lent me ten thousand baht."

Having financial resources made relatives feel heartened, as a relative described,

"I felt heartened if my kin visited the patients. Some of them gave me one hundred baht, or just fifty baht for buying food. It cheered me up. At least they didn’t forget me."

1.3.2 having assistance in routine tasks and responsibilities

Relatives received this assistance from their kin or neighbors such as caring for their child, caring for their farm, and caring for their house while they visited the patients at the hospital, as in the following examples.

"My aunt helped to care for my children."

"My sister-in-law took care of my child."

"I left my house and farm under my brother’s watch."

"I entrusted my farm to my neighbours. They were happy to do it. I could go to visit the patient easily. I had my dad and my sister-in-law care about my home."

"When I would visit my mom, I told my kin to watch over my house."

1.3.3 having assistance in patients’ problems

Relatives received this assistance from their kin and their boss such as donating their blood to the patients, as in the following examples:

"Yesterday I donated my blood to my son but it didn’t work. So I called others and finally I got it from my relative."

"My son’s boss visited him. He donated his blood to my son. He was very kind."
1.3.4 having assistance in accommodations and transportation  Relatives received this assistance from their kin, as in the following examples.

"I borrowed my relative's car to go to the hospital. The transportation system was comfortable."

"Right now the transportation is fine because my wife's brother comes. He has a car."

"I stayed with my brother in town. The transportation is good."

"I stay at my nephew's house near the hospital."

2. Material resources Material resources are considered as environmental resources. They mean money, goods or any services which money could buy. They increase a person's options to deal with stressful situations. As presented in table 9, the relatives had three types of material resources. Firstly, having enough expenses (42.2%, 27 out of 64). Secondly, receiving reimbursements related to medical expenses (81.3%, 52 out of 64) which was classified as receiving reimbursements from the government (15.6%, 10 out of 64), receiving reimbursements from social welfare and health insurance (56.3%, 36 out of 64), and receiving reimbursements from car insurance, social insurance and life insurance (9.4%, 6 out of 64). Thirdly, having suitable accommodations for going to visiting patients (81.3%, 52 out of 64) which was classified as staying at home (39.1%, 25 out of 64), staying at a temple (26.6%, 17 out of 64), and staying at other kin's house (15.6%, 10 out of 64).
Table 9  Environmental resources regarding material resources of relatives of adult patients in the ICU (n=64)

<table>
<thead>
<tr>
<th>Material resources</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having enough expenses</td>
<td>27</td>
<td>42.2</td>
</tr>
<tr>
<td>Receiving reimbursements related to medical expenses</td>
<td>52</td>
<td>81.3</td>
</tr>
<tr>
<td>Receiving reimbursements from the government</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>Receiving reimbursements from social welfare and health insurance</td>
<td>36</td>
<td>56.3</td>
</tr>
<tr>
<td>Receiving reimbursements from car insurance, social insurance, and life insurance</td>
<td>6</td>
<td>9.4</td>
</tr>
<tr>
<td>Having the suitable accommodations for going to visit the patients</td>
<td>52</td>
<td>81.3</td>
</tr>
<tr>
<td>Staying at home</td>
<td>25</td>
<td>39.1</td>
</tr>
<tr>
<td>Staying a temple</td>
<td>17</td>
<td>26.6</td>
</tr>
<tr>
<td>Staying at other kin’s house</td>
<td>10</td>
<td>15.6</td>
</tr>
</tbody>
</table>

The data showing relatives’ environmental resources regarding material resources are as follows.

“I stay with my brother in the town. I don’t have problems about transportation.”

“I stay with my nephews near the hospital.”

“I expect that I will spend the night at Wat Poe instead of going back home. I mean that the bus fee is very expensive and I don’t have my own car.”

“I will stay at Wat Poe tonight... no problem... I think it is comfortable.”

However, 18.8% of relatives (12 out of 64) did not have suitable accommodations when going to visits the patients. They perceived they had problems about transportation. They evaluated that staying at a place that the hospital provided for them was not safe, as in the following examples.
"The transportation is not comfortable. I have to transfer to another bus from my house to Ampur Banprote, then I must come by taxi because I fear that I can’t visit the patient in time."

"It’s not easy because I don’t have my own car. I will wait for the last bus at seven o’clock (p.m.). It takes me to Lad Yao when I leave a motorcycle. Then I ride home for fourteen kms. Actually I am afraid that I might have an accident on the way home."

"I can’t visit my husband in the evening. There is no bus to go back home."

"I can’t visit the patient at seven o’clock in the morning and also I can’t go back home if I visit him at six o’clock in the evening. So this the only time I could do it (Mid-day)."

"How could I stay at Wat Poe? I am a woman. I think it is dangerous."

Research Question 3

What are constraints against utilizing coping resources of relatives of adult patients admitted to the ICU?

Constraints against utilizing coping resources of relatives of adult patients in the ICU mean relative’s constraints which inhibit or thwart the use of coping resources. They consisted of personal constraints and environmental constraints. Personal constraints refer to internalized cultural values and beliefs that forbid types of action or feeling and psychological deficits. Environmental constraints refer to constraints that come from the environment in which people compete with others for the same resources or agencies or institutions that thwart coping efforts. As shown in table 10, 6.3% of the relatives (4 out of 64) had personal constraints regarding discomfort in seeking information from the staff and 6.3% of them (4 out of 64) had environmental constraints related to limitation of ICU visiting time policy.
Table 10  Constraints against utilizing coping resources of relatives of adult patients in the ICU (n=64).

<table>
<thead>
<tr>
<th>Constraints against utilizing coping resources</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal constraint</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discomfort in seeking information from the staff</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Environmental constraint</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitation of ICU visiting time policy</td>
<td>4</td>
<td>6.3</td>
</tr>
</tbody>
</table>

The data showing the relatives' constraints are as follows.

**Personal constraint** Relatives could not seek information from staff because they were afraid that staff would scold them and a doctor did not have time to give them information.

"When I enter the ICU, I don't ask anything from the staff. I am afraid that they will scold me that I know too much."

"I felt uncomfortable to ask the staff. I am afraid that they will scold me."

"I felt uncomfortable to talk with him (doctor). I am afraid that he doesn't have time for me."

In addition, one relative was afraid of the answer they could not accept, as she described that,

"I sometimes doubted about my mom's condition but I felt uneasy to ask a nurse. I am afraid that she would tell me that something bad happened to her. I couldn't accept it."

**Environmental constraint** Relatives evaluated that the limitation of ICU visiting time policy was the environmental constraint because it caused them to worry about the patient's condition.

"I think that visiting time is not enough or very limited... (one hour passes very quickly for the one who needs to stay with a patient for a long time). I want to stay with him (husband) a little longer because I am concerned about him, but it's the rule. That's all..."
right to limit the visitor inside, because they won’t disturb the staff. Still, I think the visiting time is too short.”

“Why is the period between each visiting time very long? I need to stay near and take care of him (son). Last night I hindered myself from a guard for staying in the hospital. He told me to stay at a temple. But, I didn’t want to go. I worried about him so much. I just wanted to see him.”

“The visiting time in the morning was too limited.”
CHAPTER V

DISCUSSION

In this chapter, the findings of relative's characteristics, patient's characteristics, stress, coping resources, and constraints against utilizing of coping resources of relative of adult patient in the ICU are presented and discussed.

Patient's characteristics

The majority of patients were male (56.3%). The mean age was 53.9 years of age. The conditions causing the patient's admission to the ICU mostly were cardiovascular conditions (25%) and respiratory failure (23.4%). This might be because most patients in this study were from the medical intensive care unit. The result showed that most of them received respiratory support from a mechanical ventilator (70.4%) and 79.7% were conscious. More than one half of the patients were hospitalized in general unit for 1-3 days before admission to the ICU (53.1%) and nearly 50% stayed in the ICU about 1 week.

Relative's characteristics

The majority of relatives (68.8%) were female and married (76.6%). The mean age was 43.5 years of age. Most of them had elementary education. Perhaps, one reason is that most relatives were labourers and farmers who usually had low incomes. About half of the relatives (53.1%) could partially reimburse their medical
expenses, whereas only 17.2% of relatives could totally reimburse them. The relationship between relatives and patients mostly were adult children (51.6%) and spouses (35.9%). This result is consistent with the results of several studies (Artenian, 1989: 301-308; Covinsky, et al, 1994: 1839-1844; Daley, 1984: 231-242; Wenru, 1996). The explanation for this is that in society, adult child or spouse has a family role in helping and taking care of other family members when they were ill.

Stressful situation

A total of 64 relatives appraised the situation during the 2nd day–5th day of patient’s admission to the ICU as stress. It was found that perceived severity of illness were the most stressful situation appraised by them (95.3%), followed by financial problems (57.8%), disruption of normal routines (23.4%), decreased stability of the family (21.9%), and lack of information related to patient’s diagnosis and plan of treatment (6.3%).

All relatives in this study appraised the situation in which their significant family members were admitted to the ICU as stress. It indicated that all relatives experienced stress during this time. The finding revealed that nearly 100% of relatives appraised the perception of severity of illness as stress. This is similar to the study in family members of patients with cardiac disease (Artenian, 1989: 301-308; Bedsworth & Molen, 1982: 450-456; Caplin & Sexton, 1988: 31-40; Collins, et al., 1996: 4-13; Dhooper, 1983: 15-32; Skelton & Dominian, 1973: 101-103). Also, this is similar to the study in relatives of critically ill patients (Launkoew, 1979), parent of children with cancer (Koch, 1985: 63-70; Hinds, et al., 1996: 148-153; Suwanagood, 1996), and relatives of hospitalized trauma patients (Luevanich, 1997: 84) which
found that these subjects perceived the patients' condition as very serious. Thus, they feared that the patients would die. As discussed by Lazarus and Folkman (1984), commitment was the personal factor which affected how people appraised stress. The relatives in this study were spouses, adult children, and parents who had a commitment and were close to the patients. As a result, the situation in which they evaluated the patients as being seriously ill and possibly dying was appraised as stress. Moreover, these relatives could not control or handle this situation by themselves and instead they had to rely on the staff aid.

There were five factors influencing the perception of stressful situations of the relatives were found in this study. First, patients' appearance showed their severe conditions. Second, the perception that the ICU was a symbol of critically ill patients (Roberts, 1976: 359 cited by Phongpatanawut, 1989: 57). Third, the relatives never had experience with the ICU before and this situation suddenly occurred (92%). Fourth, receiving information about patient's prognosis from doctors who treated patients and from experience with their siblings who had been admitted to the unit, and the last factor was uncertainty about the chance of the patient's survival. These factors caused relatives appraised situation as stress. This finding lends support to Lazarus's stress, appraisal, and coping theory (Lazarus & Folkman, 1984) in which cognitive appraisal is influenced by personal factors which were commitment and belief. In addition it is also influenced by situational factors which were novelty and uncertainty.

Financial problems as a stressful situation were appraised by almost 60% of the relatives. This is similar to the study of family members of patients with cardiac disease (Dhooper, 1983: 15-32; Collins, et al., 1996: 4-13; Skelton & Dominian, 1973:...
101-103). This is also similar to the study of families of seriously ill adults (Covinsky, et al., 1994: 1839-1844). This might be explained by the fact that, lack of financial factors affected relative's well being and may have affected plans for the patient's treatment. This stressful situation was caused by the patients' condition in which they were seriously ill and they had to be admitted to the ICU.

Financial problems consisted of medical expenses (28.1%), other expenses involved with visiting patients (21.7%), loss of income (15.6%), and debt (14.1%). The explanations for these results are that most relatives were poor, their occupations were workers or farmers and some of them were in debt. The illness of their family members during this time caused them to lose their incomes because their work had to be stopped. This is similar to the result of Kanjanajari's study about patients with hematologic malignancy. In this case, the patient's illness caused their wives to quit their jobs due to the need to take care of them or else they could not work full time resulting in a loss of their income (Kanjanajari, 1993).

Another explanation is that, since the patients who were the breadwinners in the family, were seriously ill, no one could replace or support the other family members. This finding is also similar to the finding of Jirajarus's study about colorectal and anal cancer patients receiving treatment at the out patient clinic. When the family leader was ill, there was no one to support the family (Jirajarus, 1996). In addition, the relatives in this study had some other extra expenses such as food and transportation costs while visiting the patients. This finding is similar to the findings of Suwanagood's study about mothers of children with cancer, who worried about financial problems related to transportation, food, and lodging, even though they had support from social worker services (Suwanagood, 1996).
Findings indicated that some relatives in this study were concerned with medical expenses (28.1%). They anticipated that medical expenses might be high because of the high technology and modern equipment used for helping their loved one in the ICU. This is similar to the study of Collins, et al. (1996: 4-13) which found that spouses of patients awaiting heart transplants in the ICU reported significantly more socioeconomic stressors related to paying medical bills and worrying about medical insurance coverage than those not awaiting transplants in the ICU, even though there was no significant difference in their incomes. Moreover, the study by Dragsted & Qvist (1992 cited by Henry, et al., 1995: 192) revealed that the cost of delivering these critical care services accounted for almost 20% of all hospital expenditures.

The findings demonstrated that the impact of serious illness on patients and admission to the ICU caused disruption of normal routines, which created another stressful situation. A possible explanation for this finding is that relatives had to take responsibilities to manage their routine duties about their job such as farm work, teaching, labour and selling, and care of other family members or managing the household before the patient was critically ill. When the patients were admitted to the ICU, they had to stop their own job or had to quit routine duties so that they could visit and take care of their loved one in the hospitals. Therefore, they were very concerned much with these. This finding is consistent with the study of Jonhson, et.al. (1995: 238-243) and Titler, et al. (1991: 174-182) who studied the impact of hospitalization in the ICU on family members. They found that disruption of normal home routines and increasing responsibilities commonly occurred among subjects. Additionally, the study by Cleveland (1980: 558-556) found that family members of patients with spinal
cord injury spent most of their time in the hospital. As a result, it disrupted family task management.

The decreased stability of the family, perceived as a stressful situation was appraised by 21.9% of relatives. The finding indicated that this situation was affected by the perception of the severity of the illness which severely threatened the relative's well being. The explanation for this is that the patients were the closet kin of relatives. They were adult children (51.6%), spouses (35.9%), and parents (12.5%). Perhaps, the perception of the potential threat of loss of the significant person was the most difficult loss a person experiences (Hess, 1992: 418) because death involves leaving and being left which causes greater suffering (Green, 1980: 238). The relatives anticipated that they would confront many difficult problems which could occur in the future such as the loss of the person who they rely on or the loss of the family leader. They evaluated that they would face more difficult problems after the patient's death. This is similar to the study of Luevanich (1997: 84) who studied the stress of relatives of hospitalized trauma patients and found that relatives worried and felt afraid when they anticipated the future. If they lost the patients, the rest of the family would be in difficulty and the family's income would be affected.

Only four relatives (6.3%) appraised lack of information about the patient's diagnosis and plan for treatment as stress. This is similar to the study of Lamontagne & Pawlak (1999: 416-421) which investigated stress of parents of children in a pediatric intensive care unit. They found that 10% of the parents identified information need as a stressful situation. One possible explanation for this finding is that the cause of patient's illness was not diagnosed. Another reason is that some relatives had no opportunity to meet and ask a doctor who treated the patient.
Information, which was not adequate and clear, caused them to experience ambiguity and uncertainty (Lazarus & Folkman, 1984: 103). This is similar to the study of Sangchan (1996) which found that information was an important resource and used for coping when a woman with newly diagnosis of breast lump was waiting for biopsy. It could reduce stress regarding uncertainty of the situation. This finding is also similar to the study of Golloway & Graydon (1996: 112-117) which found that an increase in uncertainty was significantly associated with an increase in discharge information needs of patients with first diagnosis of colon cancer who had a colon resection.

In summary, a total of 64 relatives in this study appraised the situation in which the patients who were close significant relatives were admitted to the ICU as stress. Perception of the severity of illness was a stressful situation appraised by most of them. This stressful situation caused them to experience other stressful situations including financial problems, disruption of normal routines, decreased stability in the family, and lack of information about patient’s condition and plan of treatment. The findings of this study lend to support Lazarus’s stress, appraisal, and coping theory (Lazarus & Folkman, 1984) in which a person can appraise stressful situations as harm, loss or threat to their well being at the present and in the future. Cognitive appraisals of these relatives are influenced by personal factors which are commitment, belief and situational factors, which are novelty, uncertainty, and ambiguity.

Coping resources

The findings indicated that a total of 64 relatives had both personal resources and environmental resources. Personal resources are health and energy as a physical resource, problem-solving skills and social skills as competencies, positive beliefs and
the concept of "Tamjai" as psychological resources. Resources from the environment are social support and material resources.

**Personal resources**

1. **Physical resource**

The result showed that during the time of the interview, relatives in this study were healthy (89.1%). They were not sick and they could do some activities such as doing their job and visiting the patient. Only seven relatives (10.9%) described they had problem about their health. Considering the change of eating and sleeping patterns, the majority (65.6%) ate less due to the loss of appetite and 78.1% decreased their sleeping time, which caused sleeplessness and bad sleep. This finding is similar to the findings of the study of spouses of patients with cardiac disease (Collins, et al., 1996: 4-13; Skelton & Dominian, 1973: 101-103) and family members of patients with severe head injuries (Mirr, 1991: 228-235). One possible explanation is that serious illness and admission to the ICU of their loved one was the situation which threaten the relative's well being. Anxiety was their response to this threat (Lazarus, 1966: 69) and together with the grief from potential loss of the patients cause them to experience some physical symptoms including appetite disturbance and inability to sleep (Hess, 1992: 418-419; Hood & Dincher, 1992: 51; Lindeman, 1977: 335-336). If they had these symptoms for a long time, their physical resources might be diminished. However, since the time of data collection was short (first 2-5 days of patient's admission in the ICU), this may not show the severe effect on their health and energy until they were ill.

Additionally, another explanation may be related to the time the patient was cared for at the general ward before being transferred to ICU. Some relatives took care
of the patient many days causing them to be exhausted and fatigued. Therefore, they perceived their health status as not so good. Some relatives had headache, numbness, and dizziness. These symptoms might affect their coping strategies. Based on Lazarus’s model, health and energy is one coping resource. A person who is feeling well copes with stress better than one who is not (Lazarus & Folkman, 1984: 159).

2. Competencies

Findings regarding competencies revealed that a total of 64 relatives had both problem-solving skills and social skills. Problem-solving skills was the relative’s ability to analyze and evaluate situations (100%) and to make decisions and choose methods to solve problems (89.1%) which could be categorized as management of routine tasks (62.5%), management of financial problems (42.2%), management of patient’s problems (37.5%), and appropriate management of time (7.8%). In addition, 46.8% of relatives had the ability to plan for problem solving and 32.8% had ability to seek information.

The results indicated that problem-solving skills regarding the ability to make decisions and choose methods to solve problems, to seek information, and to plan for problem solving also reflected that the relatives in this study had coping resources regarding social skills. These abilities showed that they had the ability to communicate with other people regarding management or dealing with problems which occurred at that time. Findings related to social skills revealed that 92.2% of relatives had ability to communicate with other people for consulting and ventilating with people who they trusted, 53.1% of relatives had the ability to communicate with other people for seeking help, and 39.1% of relatives had the ability to communicate with other people for seeking for information.
From the literature review, there was no study which indicated competencies. Most studies have focused on coping strategies, which could reflect on these resources. These findings are similar to the findings of previous studies of spouses of patients with MI in which spouses sought help from doctors, families, and other individuals; sought for information about care of patients (Nyamathi, 1987: 86-92); and plan for problem solving (Bedsworth & Molen, 1982: 450-456; Yeh, et al, 1994: 106-111). The study by Dhooper (1983: 15-32) found that family members of patients who had suffered from their first heart attack coped with emotional strain by talking to others, seeking information about the medical condition of patients; coped with financial strain by using up saving, cutting expenses to the barest minimum, changing patterns of expenditure, seeking help from kin, spouses; and coped with household problems by shifting responsibilities and tasks to family members. Similar to the study by Lamontagne & Pawlak (1990: 415-421), it was found that seeking social support was one of the most common coping strategies used by all parents of pediatric patients who were admitted to pediatric ICU. These coping strategies reflected that these subjects had problem-solving skills. They had the ability to make decisions and choose methods to solve problems and had ability to seek information. They also had social skills showing the ability to communicate with other people who they trusted for consulting and ventilating, for seeking help from other people, and for seeking information. These findings revealed that during the first 2-5 days of the patient's admission to the ICU, relatives drew on resources regarding competencies which are problem-solving skills and social skills to cope with stressful situations. It indicated that problem-solving skills and social skills were considered as resources that helped relatives deal with problems occurring during this time. These findings lend support
to Lazarus's coping theory in which problem-solving skills and social skills are the person's coping resources (Lazarus & Folkman, 1984).

3. Psychological resources

Results from this study showed that a total of 64 relatives had psychological resources regarding positive beliefs (100%) which could be classified as: having hope (67.2%), trust in staff's competency (43.8%) spiritual belief (28.1%), having a positive view (28.1%), having commitment (21.9%), and trust in treatment and technology used with patients (15.6%). These findings are similar to the finding of previous studies of family members of patients with cardiac disease (Artenian, 1989: 301-308; Dhooper, 1983: 15-32; Nyamathi, 1987: 86-92) which found that religious belief, faith in God, and hope helped them cope with stressful situations. Samples of spouses of patients who had cardiac disease was in the same situation with the sample of this study, that is, they perceived the severity of the illness and perceived that their loved one might die, so they had to draw on their personal resources to cope with stress.

The findings indicated that most relatives had positive belief related to having hope. The explanation for this is that these relatives evaluated the patients' condition was better after admission to the ICU. Their loved ones were taken care of closely and were treated with modern equipment. This caused them to have hope that the patients would recover, have a possibility to survive, and could be back home. Findings showed that the relatives trusted the staff's competency, treatment, and technology used with the patient. One possible reason is that they perceived they did not have the knowledge and ability to help patients, so they had to rely on staff's assistance. During this time, relatives usually felt helpless (Moser & Dracup, 1992:2262). They evaluated that only the staff could help their loved one. Another explanation is related
to ICU staff characteristics which appeared as competency and proficiency. They could effectively use sophisticated equipment which were significant factors for helping patient to survive. Therefore, they trusted the staff to care for their love one.

Results in the present study revealed that 28.1% of relatives had spiritual belief which was positive belief that relatives clung on to as a mind shelter and maintained their hope in a way that it could protect their loved ones. Results also showed that relatives had positive views which were considered as a positive belief that could generate hope which caused motivating and energizing forces for them to confront obstacles (McGee, 1984: 37). This finding is consistent with the result of Pakdeechit’s study about patients undergoing radiotherapy which found that when the patients had hope, they could better cope with stress (Pakdeechit, 1992). This is similar to the results of Parmumasmonton’s study about hope and adaptation of patients with leukemia. For them, hope was a necessary power to adjust themselves through illness, since hope helped them perceive that their illness was not too severe for them to handle. When they had hope they would expect positive things, feel heartened, and tolerate various medical treatments (Parmumasmonton, 1991). In addition, findings revealed that relatives in this study had commitment to confront obstacles and not give up. According to Lazarus’s discussion, the motivated property of commitments is an important resource because it can impel a person to sustain their coping effort when facing obstacles (Lazarus & Folkman, 1984: 61). Therefore, having commitment was one positive belief that was found in this study. These relatives had commitments that came from the patients and other family members whom they had to support and help them.
Considering another finding related to psychological resources, the finding indicated that in addition to positive beliefs, the concept of "Tamjai" (It is named in the Thai language) also one of psychological resources of relatives in this study. Two aspects of Tamjai were found in this study. First, Tamjai was a way to accept a real situation. Relatives used it as a factor that could help alleviate and reduce their stress and other distressed emotions. They could accept the situation by using Buddhist philosophy which emphasizes the importance of law of karma (Phra Dhammapidok, 1995: 155) and belief regarding "birth, sickness, decay, and death are the truth of life" (Buddhadasa Bhikkhu, 1998: 15-16). Therefore, they could accept and understand that this situation was a natural part of human life and whatever will be, will be. In a study of 74 gay men with AIDS, Reeds, et al. (1994) reported that realistic acceptance appears to represent a fundamentally cognitive phenomenon. It is a way to cope with potentially life-threatening conditions such as AIDS. If a person could accept real situations, it could be the best way to prepare themselves for anything which may occur in the future (Nilmanat, 1995). In the present study, some relatives prepared themselves for the loss of their loved one. Another could accept situations because they perceived that they did not ignore the patients. At least, the patients received the best treatment from the doctor. Second, Tamjai was a way the relatives used to strengthen their mind and fight obstacles. It was an effort to control and empower themselves. It also generated hope and helped them face up stressful situations.

These relatives drew on psychological resources to cope with stressful situations. The finding in this study indicates that the concept of "Tamjai" broadens Lazarus's stress, appraisal, and coping theory (Lazarus & Folkman, 1984) in the context of Thai culture. This psychological resource is a coping resource that
corresponds to emotion-focused coping strategies. It is a useful resource that helps relatives maintain calm, reduce worry, and better adapt when confronting stressful situations.

**Environmental resources**

1. **Social support**

Findings revealed that a total of 64 relatives had social support which indicated that they used this resource to cope with stressful situation during this time. The result showed that they received three types of support from their kin, neighbors, friend, and other patients’ relatives. Firstly, emotional support, which consisted of having someone who listened to their problems (90.6%) and having someone who comforted, cheered up and visited the patient (64.1%). Secondly, informational support in which someone gave them some advice (78.1%). Thirdly, tangible support which consisted of having financial assistance (34.4%), having assistance in routine tasks and responsibilities (31.3%), having assistance in patient’s problems (18.8%), and having assistance in accommodations and transportation (17.2%).

These findings are similar to findings of previous studies about family members of patients with cardiac disease (Artenian, 1989: 301-308; Dhooper, 1983: 15-32; Nyamathi, 1987: 86-92) which found that family members, friends, and neighbors were factors that helped them cope with problems. These are also consistent with the results of Hirth & Stewart’s study about patients waiting for cardiac transplant (Hirth & Stewart, 1994: 31-48). They reported that family members were frequent sources of effective support which was characterized as love, concern, and encouragement. They also provided the subjects with opportunities for emotional venting. Similarly to the study by Ritudom (1994) which found that support related to
money, household and other necessary things from their mate helped cancer patients receiving chemotherapy after mastectomy reduce their stress and concern.

Findings revealed that relatives had all types of social support. This might be because characteristic of Thai culture which people usually help and support each other, especially among local people. It also indicated that when they experienced stressful situation they tried to seek and draw on social supports available in context of this situation for dealing with stress. They received these supports from their kin, neighbors, other patients’ relatives and their employer. These findings lend support to Lazarus’s stress, appraisal, and coping theory in which social support is an environmental resource that a person uses for coping (Lazarus & Folkman, 1984: 159).

2. Material resources

Findings showed that relatives had material resources that could be categorized into three types. First, having enough expenses (42.2%), second, receiving reimbursement related to medical expenses (81.2%) which included: receiving reimbursement from government (15.6%); from social welfare and health insurance (56.3%); and from car insurance, social insurance, and life insurance (9.4%), and third, having suitable accommodations for going to visit the patient (81.3%) which was classified as: staying at home (39.1%), staying at a temple (26.6%), and staying at other kin’s house (15.6%).

Findings revealed that only 42.2% of relatives had enough expenses. It indicated that more than a half of them had financial problems. According to Lazarus’s discussion, material resources is one of coping resources. It increases coping options in almost any stressful situations (Lazarus & Folkman, 1984: 164). Therefore, when material resources such as money was not enough, it was reflected in
relative's stressful situation appraisal as financial problems. Only 15.6 % of them could reimburse their medical expenses from the government because they, themselves, the patient or their sibling were government officers. However, more than half of the relatives could make a reimbursement from social welfare and health insurance. This could reduce some stress of relatives who had no financial resources, whereas not all because most of them had a low income and worked as farmers and labourers.

In addition, relatives had extra expenses related to food and transportation to and from the hospital. Moreover, some of them were in debt and they had to stop their job which caused them to lose their income. Therefore, reimbursement of medical expenses from social welfare and other insurance was not enough for them. Stressful situations related to financial problems remained. This is similar to the result of Covinsky, et al.'s study about family members of seriously ill adult and Kanjanajari's study about patients with hematologic malignancy as previously mentioned (Covinsky, et al., 1994: 1839-1844; Kanjanajari, 1993).

The results also revealed that most relatives had suitable accommodations for going to visit the patients (81.3%). They mostly stayed at home which was not far from the hospital and had no transportation problems. Some of them could stay at kin's houses near the hospital (15.6%). In addition, the hospital provided a place for relatives who had no place to stay at night using a nearby temple. The findings showed that having suitable accommodations for going to visit the patients helped relatives visit their loved ones all three visiting time periods including morning, midday, and evening time. Relatives who could stay with their kin or stay at the temple could save on their accommodation and transportation costs. This differed from
relatives who had accommodation and transportation problems because they had problems with visiting times. For example, they couldn’t visit patients in the morning. These results lend support to Lazarus’s discussion in which material resources is a resource that a person uses for coping with stressful situations (Lazarus & Folkman, 1984: 164). However, some relatives evaluated that staying at a temple was not suitable for them because it was not safe for women.

In summary, the findings in this study lend support to Lazarus’s stress, appraisal, and coping theory in which health and energy, problem-solving skills, social skills, positive beliefs, social support, and material resources are coping resources. The relatives in this study had all types of coping resources to deal with stressful situations. However, they still experienced stress because some resources such as material resources were not adequate and their loved ones were still in a life-threatening situation. In addition, the findings indicate that the concept of “Tamjai” is a psychological resource that emerged from this study, which broaden Lazarus’s stress, appraisal, and coping model.

Constraints against utilizing coping resources

The findings showed that four relatives (6.3%) had personal constraint which was “discomfort in seeking information from the staff”. Some causes of it included: they were afraid of the staff’s scolding and they were afraid that the doctor did not have time to give information. This finding reflected the limitation of health care provider system that caused the relatives to feel uncomfortable to seek information they needed. In addition, these relatives might worry that the staff would not give good care to their loved ones. Therefore, they had to perform a good manner to the
staff. The findings also indicated that relatives in this study needed information from the staff. These findings support previous reports that information need was ranked as the most important need of family members of ICU patients (Daley, 1984: 231-242; Davis-Martin, 1994: 515-518). However, this personal constraint was the factor that inhibited them to seek for information.

Considering environmental constraint, the results revealed that four relatives (6.3%) had environmental constraint, which was limitation of the ICU visiting time policy. They evaluated that visiting time was not enough and not suitable. They needed more time to visit patients and to see them more frequently in order to reassure their loved one’s well-being and reduce their stress from perception of severity of illness. This result is supported by Phongpatanawut’s study about family members of critically ill patients in the ICU which found that restricted visiting times was one of factors causing them stress (Phongpatanawut, 1989). Similarly, the study by Mirr (1991: 228-235) found that visiting restrictions of ICU caused conflicts or power struggles with other family members over sharing time. Some of them reported conflicts with nurses regarding visiting hours, particularly if care was being given during that time and they were not allowed in. Theses results indicated that a restrictive visiting time policy inhibited relatives to cope with stressful situations and prevented them from seeing their loved one frequently and staying near them.

The findings related constraints against utilizing coping resources lend support to Lazarus’s stress, appraisal, and coping theory (Lazarus & Folkman, 1984) in which a person has adequate resources, whereas they do not fully use them due to the factors called personal constraints and environmental constraints.
In summary, the findings in the present study revealed that relatives of adult patients in the ICU appraised situation, which their loved ones were admitted in the ICU as stress. Stressful situation appraised by most of them was perceived severity of illness. Financial problems, disruption of normal routines, decreased stability of the family and lack of information about patient’s diagnosis and plan of treatment were also found to be stressful situations. They drew on their personal and environmental resources to deal with these situations. A few relatives had personal constraint and environmental constraint. The results from this study can be used to develop the instruments that can be used to assess the relative’s stress, coping resources, and constraints against utilizing coping resources and to plan specific nursing intervention in this sample.

Limitations

Limitation of this study was:

The researcher sometimes interviewed four relatives a day resulting in being exhausted which may effect the data collection.
CHAPTER VI

CONCLUSION AND RECOMMENDATIONS

Conclusion

This descriptive research aimed to describe stress, coping resources, and constraints against utilizing coping resources of relatives of adult patients in the ICU. Lazarus and Folkman’s theory of stress, appraisal, and coping model was used as a conceptual framework for this study.

The target population of this study was relatives of adult patients who were admitted to the medical intensive care unit (MICU) and the surgical intensive care unit (SICU) at Sawanpracharack Hospital, Nakhonsawan from May to July, 1999. Samples were purposively selected from relatives of patients who met the following study criteria: a) relatives of adult patients in the ICU who visited the patients within the first 2-5 days after admission to the ICU; b) relatives who were spouses, parents or children and were the most significant and close people to the patients; c) relatives were 18 years of age or over and able to communicate in Thai; and d) willingness to participate in the study.

The instruments used in this study were: the demographic questionnaires and the semi-structured open-ended questions which were questions related to perceived stressful situations, coping resources, and constraints against utilizing coping resources of relatives of adult patients in the ICU.

Data was collected by interviews by the researcher. The demographic data
were analyzed by using descriptive statistics. Stressful situations, coping resources, and constraints against utilizing coping resources were analyzed by using content analysis. The conclusions of the findings are listed below.

1. A total of 64 relatives of adult patients in the ICU appraised the situation in which patients were admitted to the ICU as stress. There were 1-5 stressful situations. The perception of severity of illness was a stressful situation appraised by most relatives (95.3%), followed by financial problems (57.8%), disruption of normal routines (23.4%), decreased stability of the family (21.9%), and lack of information about patient's diagnosis and plan of treatment (6.3%).

2. Coping resources which 64 relatives in this study drew on in order to cope with stressful situations were from both personal resources and environmental resources. The relatives' personal resources were as follows:

2.1) Health and energy: Most relatives were healthy (89.1%). Only seven relatives (10.9%) had problem about their health. Even though most relatives perceived they were healthy during periods of patient's admission in the ICU, they evaluated that their health and energy were disturbed. They ate less due to the loss of appetite (65.6%) and decreased their sleeping time due to the sleeplessness and bad sleeping (78.1%). The causes of these symptoms arose from the stressful situations during this time.

2.2) Problem-solving skills included: a) the ability to analyze and evaluate situations (100%); b) the ability to make decisions and choose methods to solve problems which could be classified as management of routine tasks (62.5%),
management of financial problems (42.2%), management of patient’s problems (37.5%), and appropriate management of time (7.8%); c) the ability to plan for problem solving (46.8%); and d) the ability to seek information (32.8%).

2.3) Social skills included: a) the ability to communicate with people who they trusted for consulting and ventilating (92.2%), b) the ability to communicate with other people for seeking help (53.1%), and c) the ability to communicate with other people for seeking information (39.1%).

2.4) Psychological resources which were positive beliefs and the concept of “Tamjai” (It is named in the Thai language). Positive beliefs could be categorized as: a) having hope (67.2%), b) trust in staff’s competency (43.8%), c) spiritual belief (28.1%), d) having a positive view (28.1%), e) having commitment (21.9%), and f) trust in treatment and technology used with the patients (15.6%). The result in this study regarding the concept of “Tamjai” broadens Lazarus’s stress, appraisal, and coping theory (Lazarus & folkman, 1984) in the context of Thai culture. Two aspects of Tamjai were: a) Tamjai was used by relatives to accept a real situation (32.8%) and b) Tamjai was used by relatives to strengthen their mind and fight obstacles (31.1%).

In addition, the relatives had environmental resources which were as follows:

1) Social support, there were three categories of social support. First, emotional support which could be classified into two types: a) having someone to listen to their problem (90.6%) and b) having someone to comfort, cheer them up and visit the patient (64.1%). Second, informational support was having someone to give the relatives some advice (78.1%). Third, tangible support which consisted of: a) having financial assistance (34.4%), b) having assistance in routine tasks and
responsibilities (31.3%), c) having assistance in patient’s problems (18.8%), and d) 
having assistance in accommodations and transportation (17.2%).

2) Material resources, there were three categories of material resources. 
First, having enough expenses (42.2%). Second, receiving reimbursement related to 
medical expenses (81.2%) which included receiving reimbursement from the 
government (15.6%); receiving reimbursement from social welfare and health 
insurance (56.3%); and receiving reimbursement from car insurance, social insurance 
and life insurance (9.4%). Third, having suitable accommodations for going to visit 
the patients (81.3%) which were classified as staying at home (39.1%), staying at a 
temple (26.6%), and staying at other kin’s house (15.6%).

3) The relatives in this study had two types of constraints against utilizing 
coping resources which were the personal constraint (6.3%) and the environmental 
constraint (6.3%). Discomfort in seeking information from the staff was found to be 
relatives’ personal constraint and a limitation of the ICU visiting time policy was 
found to be relatives’ environmental constraint.

Implications and Recommendations

The finding from this study provide considerations for nursing practice, 
education, and research.

Nursing Practice

The findings of this study showed that most relatives appraised this situation 
of patients who were admitted to the ICU as stress. Therefore, they drew on resources 
that were available to cope with stressful situations. At that time, there were some
constraints against utilizing their coping resources. From the finding of this study, the researcher suggests the following nursing intervention.

1. **Assessment of the relative’s appraisal, coping resources, and constraints against utilizing coping resources** during the first 2-5 days of patient’s admission to the ICU by developing assessment tool that based on the result of this study. ICU nurses should provide opportunities for relatives to express their feelings and talk about their problems and concerns that help ICU nurses understand relatives’ stressful situation and ability to cope with stress. In addition, it will help reduce relatives’ personal constraint in which they felt uncomfortable to seek information from the staff.

2. **Giving information about patient’s condition, progression, plan of treatment.** The relatives appraised the perceived severity of illness and decreased stability of family as stressful situation. This indicates that this situation threatens their well being at the present and in the future. Therefore, ICU nurses should encourage them to appraise situation accurately and realistically, reduce stress from event uncertainty by giving information about patient’s condition, progression and plan of treatment. In addition, they should play a role to mediate communication between physicians and relatives because some of them had personal constraints related to discomfort in seeking information from the staff.

3. **Facilitating the relatives necessary resources** such as consulting social workers for financial problems and giving information about accommodations.

4. **Promoting health and energy of relatives** when visiting the patient by:
   a) Providing a place to stay when they visit the patient at the hospital.
b) Reducing time for going to visit the patient and also reducing anxiety about patient’s condition by giving ICU telephone numbers for asking patient’s information. It will help the relatives have enough time to do their job and not have to visit and take care of patients all the time.

c) Suggesting them to pay attention to their health so that they have power and energy to handle stress and to give them suggestions about food, rest, and allaying anxiety.

5. Facilitating the relatives to maintain their hope by:

a) Giving reassurance that the patients are given the best care.

b) Facilitating the relatives to perform their spiritual beliefs.

6. Facilitating informational and emotional support among relatives of ICU patients and their family members by encouraging and facilitating relatives to discuss with their family members and other patients’ relatives in order to exchange information and cheer each other up.

7. Providing flexible visiting time. Based on the result of this study about the relative environmental resource regarding limitation of ICU visiting policy, ICU nurses should assess visiting need of relatives and provide the flexible visiting time in each case.

8. Sharing this research finding with ICU nurses and policy makers for developing protocol that use in assessment and giving an appropriate and effective nursing intervention to the relatives.
Nursing Education

The findings in this study revealed that admission of the patients to the ICU was the situation that threatened relative's well being. They had to draw on resources to handle stressful situations. These findings provide knowledge that will help student nurses who read this research understand stress and the use of coping resources of relatives of adult patients in the ICU that will promote the concept of holistic nursing in student nurses.

Further Research

1. There were three relatives who refused the interview. They might have experienced higher levels of stress. Therefore, further research with them should be conducted.

2. The limitation of this study was the fact that the interviewed four relatives a day, causing exhaustion for the researcher. Further researchers should not interview more than three relatives a day.

3. The finding of this study indicated that using open-ended questions that were guided by conceptual frameworks to collect data provided useful knowledge which increased the understanding about stress, coping resources, and constraints against utilizing coping resources. Therefore, further research related to stress and coping should use them for data collection.
BIBLIOGRAPHY


กิติกร นิคมานัส. (2538) (Nilmanat, K., 1995). ความรู้สึกไม่แน่นอนในความเข้มข้น ไวรัส และวิธีการควบคุมความเครียดของเด็กผู้หญิงปอดดับชีวิต เจ้าของที่มีอาการหายหักก้าก้าวตัวเอง โรงพยาบาล. วิทยานิพนธ์ทางอาหารศาสตรมหาบัณฑิต (การพยาบาลผู้ป่วย) บันทึกวิทยาลัย มหาวิทยาลัยมหิดล.


ชานิช ลิ้นเงิน. (2540) (Luevanich, C., 1997). มูลค่าการทบทวนความครียด และภาวะเครียด ปัญหาอาหารในเด็กผู้ป่วยที่ประสบอุทิศเด็กชุมชนที่ตกทับมะถ workflow ในโรงพยาบาล. วิทยานิพนธ์ทางอาหารศาสตรมหาบัณฑิต (การพยาบาลผู้ป่วย) บันทึกวิทยาลัย มหาวิทยาลัยมหิดล.

ทักษิณ ชวาระบาร์กรณ์. (2531) (Choowattanapakorn, T. 1988). ความสัมพันธ์ระหว่างความท่วง และการร่วมกันของผู้ป่วยระยะยาวในโรงพยาบาล. วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (พยาบาลศาสตร์) บันทึกวิทยาลัย มหาวิทยาลัยมหิดล.


บังอร ฤทธิ์กุล. (2537) (Ritudom, B., 1992). ความสัมพันธ์ระหว่างการสนับสนุนจากคู่สมรส พฤติกรรมการดูแลตนเองที่คุณภาพชีวิตในผู้ป่วยระยะยาว ด้านที่ได้รับการสนับสนุน พฤติกรรมการดูแลตนเองที่คุณภาพชีวิตในผู้ป่วยระยะยาว ด้านที่ได้รับการสนับสนุน วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (พยาบาลศาสตร์) บันทึกวิทยาลัย มหาวิทยาลัยมหิดล.

บุญมา ตั้งศิริศิริ. (2535) (Tantisak, B., 1992). ความสัมพันธ์ระหว่างปัจจัยบ่งบอกการ พฤติกรรมการดูแลตนเองที่คุณภาพชีวิตในผู้ป่วยระยะยาว ด้านที่ได้รับการสนับสนุน วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (พยาบาลศาสตร์) บันทึกวิทยาลัย มหาวิทยาลัยมหิดล.


พรชัย ไชยสม. (2536) (Chaisom, P., 1993). ความเครียด และพฤติกรรมผู้ป่วยควบคุมดื่มของบิดา บรรดาที่เกิดจากการรักษาในท้องกิจการคลินิกที่ห้า วิทยานิพนธ์พยาบาลศาสตรมหาบัณฑิต (การพยาบาลแม่และเด็ก) บันทึกวิทยาลัย มหาวิทยาลัยมหิดล.

มาลี ตั้วนาภัทร (2522) (Launkaw, M., 1979). ความเครียดในบางครั้งผู้ป่วยไฟบั้มการหงส์. วิทยานิพนธ์ปริญญาตรีศิลปศาสตรมหาบัณฑิต (มหาบัณฑิต) บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.

แม่เนียม จริยะจรัส (2539) (Jirajans, M., 1996). รูปแบบการพัฒนาหลักสูตรการสอนสำนักในผู้ป่วยโรคร้องไห้ และการนำทบทวนได้รับการรับรองแบบผู้สนใจ. วิทยานิพนธ์ ปริญญาตรี มหาวิทยาลัยบัณฑิต (มหาบัณฑิต) บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.


วิมลสวัสดี ภิวาทะ (2535) (Vrolarn, V., 1992). การรับรู้และรับความรู้สึกไม่แน่นอนในความเข้าใจการบริโภคยา รวมถึงความดุกระดับและความดุกระดับโดยทั่วไปของบุคลากรที่มีลักษณะการรักษาในโรงพยาบาล. วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (มหาบัณฑิต) บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.


สาคู คงพันธ์ (2533) (Kongpun, S., 1990). ความสัมพันธ์ระหว่างความคิดความคิดเห็นกับความดุกระดับไปในภาวะที่มีความรุนแรงของภาวะรักษานิเวศ. วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (มหาบัณฑิต) บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.


สุภัยภัทร กาญจนาภี (2536) (Kanjanajar, S., 1993). รูปแบบการเข้าใจของผู้ป่วยมะเร็งของระบบโพแทสเซียมในภาวะที่กินโปรตีน. วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต (มหาบัณฑิต) บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.

APPENDIX
APPENDIX A

Questionnaires

Demographic Questionnaire:

Part I Patient’s demographic questionnaire

1. Sex □ male □ female

2. Age __________ years

3. The conditions causing the patient admitted to the ICU ____________
   □ Cardiovascular conditions □ Acute respiratory failure
   □ Gastrointestinal conditions □ Acute renal failures
   □ Coma □ Trauma with injury
   □ Sepsis and septic shock □ Others

4. The equipment used with the patient ____________

5. The patient’s level of consciousness □ alert □ coma

6. Admission in the general ward before being transferred to the ICU was ________ days

7. Length of stay in the ICU: ____________ days.
Part II  The relative’s demographic questionnaire

1. Sex  □ male  □ female

2. Age ____________ years

3. Religion ____________

4. Marital status □ single  □ married  □ widow/divorce/separated

5. Educational background □ no education  □ certificate & diploma
□ primary school  □ bachelor degree or higher
□ high school

6. Occupation □ government officer  □ farmer
□ trader  □ housewife
□ labourer  □ unemployed

7. Payment □ reimbursement  □ self paid
□ partial reimbursement

8. Relationship to patient □ child  □ spouse  □ parent

9. Experience of the family member with the ICU □ no  □ yes

10. The day of interview □ 2nd day of patient’s admission to the ICU
    □ 3rd day of patient’s admission to the ICU
    □ 4th day of patient’s admission to the ICU
Part III  Perceived stressful situation, coping resource, and constraints against utilizing coping resources questions

Direction: Please describe the situations which have occurred since your relative was admitted to the ICU until now and answer these following questions.

Stressful situation questions

1. What are your thoughts and feelings about the situation which (patient’s name) was admitted to the ICU?

2. How does this situation affect you and your family?

3. What are your concerns related to the situation in which (patient’s name) was admitted to the ICU?

4. Do you have any other concerns related this situation?

Coping resources questions

Some significant factors may help you deal with a difficult situation occurring in your life, such as having good health status, having power and strength mind or having encouragement and support from other people. What do you think is the factor which helped you deal or manage with the situation you concerning about (patient’s name)’s illness?

Health and energy

1. How do you perceive your health status?

2. Did your health status contribute in dealing with your concerns, How?

3. How about eating? Was it enough or not? What was the cause of not eating enough?
4. How have you been sleeping since (patient’s name) was admitted to the ICU? Was it enough or not? What was the cause of not enough sleeping?

Social skill

1. How well do you get along with the others?

2. Did it help you to deal with your problems or concerns? How did it help you?

Positive belief

1. How do you perceive (patient’s name)’s condition now?

2. What do you expect about (patient’s name)’s condition? Is it worse, better or stable? Why do you think so?

3. How do you perceive the treatment and nursing care given to the patient?

4. Did you seek any help from other people or do anything to help (patient’s name)? What was the result from doing these things?

Social support

1. Did you have someone to talk to or discuss things with as you faced the situation in which your relative was admitted to the ICU?

2. What contents or details did you discuss or talk about?

Problem-solving skill

1. What did you do to handle these concerns?

2. Who did you contact for help seeking about (patient’s name)’s illness?

Material resource

1. Did you help for pay medical treatment of the patient during the ICU’s admission?

2. How does the payment affect you?
Constraint against utilizing coping resources questions

In dealing with difficult situations, some people may confront some obstacles. For you, what did you perceive as the obstacles that made you unable to manage your problems or concerns?

1. How do you manage your work when you need to go to see/take care of the patient in hospital?

2. How do you go to the hospital? Do you have any problems about transportation?

3. Where do you stay when the patient is admitted in the ICU? Do you think it is a suitable place for you?

4. What do you think about the ICU visiting policy?

5. What are factors inhibit you to deal with your problems about the patients?

6. What are the issues that you would like to suggest to the ICU staff concerning quality of care?

7. What are the issues that you would like to suggest to the hospital about quality of services?
APPENDIX B

List of Experts Consulted on Validation of the Instruments

The following experts assisted the researcher in developing the instrument used in this study.

1. Associate Professor Prakong Intrasombat
   M.Ed. (Nursing Administration)
   Department of Nursing
   Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

2. Assist. Professor Pikul Tantitham
   M.S. (Acute Care Nursing)
   Department of Nursing
   Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

3. Assist. Prof. Yajai Sitthimongkol
   M.S. (Psychiatric Nursing), Ph. D. (Nursing)
   Department of Mental Health and Psychiatric Nursing
   Faculty of Nursing, Mahidol University.
APPENDIX C

Consent to Participate in Research Study

Human Rights for Research Population

To ______________________

I am a graduate student, Mahidol University. I am currently conducting research “Stress, Coping Resources, and Constraints Against Utilizing Coping Resources of Relatives of Adult Patients in the ICU”. A potential benefit of this study is to help nurses and other health professionals understand and use this information in planning appropriate and effective interventions to prevent and manage stress in relatives of adult patients in the ICU. However, the research will not be succeed without your participation.

You can participate in this research study by interviewing general information about yourself, feeling and concern related to your relative’s admission to the ICU, resources, and obstacles in coping with problems occurred during this time and this information will be tape-recorded. All data which you provide will be kept confidential and used only to present an overall picture. If you have any questions, I would be glad to explain them to you. You can refuse or participate in this research study with no effect on the treatment of care that the patient receives. Even during the study period, you can withdraw yourself from the study at anytime.

Thank you for your kind cooperation.

Sincerely yours,

Rungrat Wanichapichat
BIOGRAPHY

NAME
Miss Rungrat Wanichapichat

DATE OF BIRTH
11 August 1969

PLACE OF BIRTH
Nakhonsawan, Thailand

INSTITUTIONS ATTENDED
Sawanpracharak Nursing College, 1988-1991
Diploma in Nursing.
(Equivalent to Bachelor of Science in nursing)
Mahidol University, 1997-2000
Master of Nursing Science (Adult Nursing)

POSITION & OFFICE
1998- Present, Staff nurse 6
Medical intensive care unit,
Sawanpracharak Hospital, Nakhonsawan