ROLE STRAIN OF CAREGIVER DAUGHTERS OF PATIENTS WITH CEREBROVASCULAR DISEASE

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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

2004

ISBN 974-04-4372-3

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Entitled

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was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Master of Nursing Science (Adult Nursing)
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude and deep appreciation to Assoc. Prof.Dr.Saipin Kasemkitwattana, my major advisor for valuable guidance, advice, and encouragement, which enabled me to succeed in my thesis. I am very grateful to have had the opportunity to be her advisee. My appreciation and gratitude is also extended to Assoc.Prof.Dr.Pongsri Srimoragot, and Asst.Prof.Dr.Usavadee Asdornwised, my co-advisors, for their constructive comments, supervision and encouragement. I also would like to express my appreciation to Assoc.Prof.Wannee Satayawiwat and Assoc.Prof.Prakong Intarasombat, the thesis committee members, for their constructive comments and valuable recommendations for the study.

I acknowledge the Director of Prasat Neurological Institute and King Chulalongkorn Memorial Hospital, and the officers of the Neurological Clinic, Out-Patients Department at both hospitals for their cooperation and generous assistance.

I deeply thank all the subjects who participated in this study. Without their cooperation, my study would not have been successful.

I am very grateful to the Faculty of Graduate Studies, Mahidol University for partial financial support for this study. I am also thankful to the Boromarajonani College of Nursing, Nopparatvajira that allowed me the time to study.

Finally, I am very grateful to my parents, beloved brothers, sister, my friends, and my colleagues for their love and encouragement, which have inspired me to reach this goal.

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ROLE STRAIN OF CAREGIVER DAUGHTERS OF PATIENTS WITH CEREBROVASCULAR DISEASE

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ABSTRACT

The purpose of this descriptive research was to examine factors influencing caregiver role strain of daughters in patients with cerebrovascular disease. The samples were 110 daughter caregivers who accompanied the patients to follow-ups at neuromedical clinics of the Out-Patient Department at Prasat Neurological Institute or King Chulalongkorn Memorial Hospital. The research instruments were Demographic data, Strain from worry, Mutuality, Preparedness, Rewards of Caregiving, and Caregiver role strain questionnaires. The data were collected between January and May 2003 and analyzed by descriptive statistics, Pearson's product moment correlation, and stepwise multiple regression.

The result showed that the samples had ages ranging from 18 to 64 years with an average of 39 years. More than half of the samples were single (56.4%).Equal numbers completed elementary level schooling as completed a bachelor's degree (29.1%). Many of them had family income less than 10,000 baht per month (36.4%) and left their jobs to be caregivers (27.3%). The average duration of care was 26.7 months and the average time spent in caregiving was 12.8 hour per day. Most of them had no experience of caregiving before (87.3 %), had received information and skill training in caring (77.3%), had at least one caregiving assistant (85.5 %), had some health problem before taking the caregiving role (35.5%), and had health problems during taking the caregiving role (49.1%). Some of them (26.4%) had other persons to care for as well as the CVD patient. The reasons for becoming a caregiver were duty or responsibility (79.1%) and love or bonding (77.3%). Strain from worry was positively related to caregiver role strain at a moderate level with significance (r =.447, p<.001). Preparedness, rewards of caregiving, and family economic status were negatively related to caregiver role strain at a low level with significance (r =-.295, p<.01, r =-.226, p<.01, r =-.197, p<.05). Strain from worry was able to predict caregiver role strain, and could explain 20.0 percent. Preparedness could explain up to 30.3 percent.

The implications from this study are that nurses should evaluate strain from worry, preparedness, positive feelings from caregiving of caring, economic problems, and health status. Moreover, nurses should plan to promote health continuously for daughter caregivers of CVD patients.

KEY WORDS : CEREBROVASCULAR DISEASE / CAREGIVER DAUGHTERS ROLE STRAIN // STRAIN FROM WORRY/ PREPAREDNESS
106 P. ISBN 974-04-4327-3

ความเครียดในบทบาทญาติผู้ดูแลที่เป็นบุตรสาวผู้ป่วยโรคหลอดเลือดสมอง(ROLE STRAIN OF CAREGIVER DAUGHTERS OF PATIENTS WITH CEREBROVASCULAR DISEASE)

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บทคัดย่อ

การศึกษาวิจัยเชิงบรรยายครั้งนี้ มีจุดประสงค์เพื่อศึกษาปัจจัยที่มีอิทธิพลต่อความเครียดในบทบาทญาติผู้ดูแลที่เป็นบุตรสาวผู้ป่วยโรคหลอดเลือดสมอง กลุ่มตัวอย่างคือบุตรสาวที่พาผู้ป่วยมารับการตรวจรักษาที่คลินิกอายุรกรรมประสาท แผนกผู้ป่วยนอกสถาบันประสาทวิทยาและโรงพยาบาลจุฬาลงกรณ์ จำนวนทั้งสิ้น 110 ราย เครื่องมือที่ใช้ในการเก็บข้อมูลประกอบด้วย แบบสอบถามข้อมูลส่วนบุคคล แบบวัดความวิตกกังวล แบบวัดความสัมพันธ์ต่างเกื้อกูล แบบวัดความพร้อมในการดูแล แบบวัดรางวัลที่ได้รับจากการดูแล แบบวัดความเครียดในบทบาทญาติผู้ดูแล ระยะเวลาในการเก็บข้อมูลตั้งแต่เดือนมกราคม ถึงเดือนพฤษภาคม พ.ศ. 2546 วิเคราะห์โดยสถิติพรรณนา ค่าสัมประสิทธิ์สหสัมพันธ์ของเพียร์สัน และการวิเคราะห์ถดถอยแบบพหุคูณขั้นตอน

ผลการศึกษาพบว่ากลุ่มตัวอย่างมีอายุระหว่าง 18-64 ปี อายุเฉลี่ย 39 ปี มากกว่าครึ่งมีสถานภาพโสด (56.4%) ส่วนใหญ่มีการศึกษาระดับประถมศึกษาและระดับปริญญาตรีเท่ากัน (29.1%) ส่วนใหญ่มีรายได้ครอบครัวต่ำกว่า 10,000 บาทต่อเดือน (36.4%) และออกจากงานเพื่อมาดูแลผู้ป่วย (27.3%) มีประสบการณ์ในการดูแลผู้ป่วยเฉลี่ย 26.7 เดือน และใช้เวลาในการดูแลเฉลี่ย 12.8 ชั่วโมงต่อวัน ส่วนใหญ่ไม่มีประสบการณ์ในการดูแลผู้ป่วยมาก่อน (87.3%) ส่วนใหญ่ได้รับคำแนะนำหรือฝึกทักษะการดูแล (77.3%) มีผู้ช่วยเหลืออย่างน้อย1 คนในการดูแลผู้ป่วย (85.5%) มีปัญหาสุขภาพก่อนการดูแล (35.5%) และในระหว่างการดูแลมีปัญหาสุขภาพ (49.1%) ต้องดูแลบุคคลอื่นนอกเหนือจากผู้ป่วย (26.4%) เหตุผลในการเข้ามารับบทบาทเป็นผู้ดูแล เป็นหน้าที่หรือความรับผิดชอบ (79.1%) ความรักหรือความผูกพัน (77.3%) ความวิตกกังวลมีความสัมพันธ์ทางบวกกับความเครียดในบทบาทญาติผู้ดูแลในระดับปานกลาง อย่างมีนัยสำคัญทางสถิติ (r =.447, p< .001) ส่วนความพร้อมในการดูแล รางวัลที่ได้รับจากการดูแล เศรษฐานะของครอบครัวมีความสัมพันธ์ทางลบกับความเครียดในบทบาทญาติผู้ดูแลในระดับต่ำอย่างมีนัยสำคัญทางสถิติ (r =-.295, p< .01, r =-.226, p<.01, r =-.197, p<.05 ตามลำดับ) โดยความวิตกกังวลสามารถทำนายความเครียดในบทบาทญาติผู้ดูแลได้ร้อยละ 20.0 และความพร้อมในการดูแลสามารถร่วมทำนายความเครียดในบทบาทญาติผู้ดูแลเพิ่มขึ้นเป็นร้อยละ 30.3

ผลการวิจัยมีข้อเสนอแนะว่า พยาบาลควรมีการประเมินความวิตกกังวล ความพร้อมในการดูแล ความรู้สึกที่ดีในระหว่างการดูแล ปัญหาทางเศรษฐกิจและภาวะสุขภาพของญาติผู้ดูแลที่เป็นบุตรสาว รวมถึงการวางแผนให้ความช่วยเหลือเพื่อส่งเสริมสุขภาพของญาติผู้ดูแลที่เป็นบุตรสาวอย่างต่อเนื่อง

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CHAPTER I

INTRODUCTION

Background and significance of the study

Cerebrovascular disease is a chronic illness which is considered to be a crucial public health problem. From reports of the World Health Organization, it was the most common second cause of death and usually occurred in people aged over 65 years. It was predicted that people ageds over 60 years would be twice as numerous in the next 20 years. Thus, there is a trend that the occurrence of cerebrovascular disease could also be doubled (Hachinski, 2002: 1). In the United States of America, it was found that there were approximately 500,000 to 600,000 patients with cerebrovascular disease each year. And this disease caused to death in the third rank, next to heart disease and cancer (Grant, 1996: 893; Margie,1998: 606; Teel, et al., 2001: 53) .
In Thailand, cerebrovascular disease occurs at the high rate, 690 per 100,000 people (Puangwarin, N. 2001: 21). Moreover, the rate at which people in all provinces of the country were ill from this disease was 92.7 per 100,000 people (statistics from Ministry of Public Health, Thailand, 2001).

Due to medical and nursing technological advances, caregiving has helped cerebrovascular disease patients to pass the critical period more (Teel, et al., 2001: 53). However, it appeared that 90% of these survivors had remaining disabilities (Periard & Ames, 1993: 252) which were physical mobility impairment, difficulty in swallowing, speaking and communication impairments, including loss of memory and cognition (Ragsdales, et al., 1993: 156 – 159). Besides, it was also found that the patients might change in behavior and emotional expression such as being worried, angry, unfriendly, restless, uneasy, aggressive, isolated or depressed. In addition, the following complications might occur ; joint stiffness, pressure sores or pneumonia (Ragsdale, et al., 1993: 156). As mentiones above, patients with cerebrovascular disease had limitations of taking care of themselves. So they needed continual caregiving from relatives or family members after discharge from hospital (Frazer, 1999: 9; Heuvel, et al., 2000: 670; Williams, 1994: 155).

According to Thai culture, family members usually have the crucial role and responsibility to take care of the patients due to their love and blood relationship. This group may include fathers, mothers, spouses, relatives, siblings, and children (Unnaprirak, L. 1999: 32), especially children who are expected by Thai society to have an important role to take care of their parents when they are old or ill. It is their role to reciprocate parents' kindness and express their gratefulness to them (Poopaiboon, R. 1992: 11; Suphap, S. 1980: 83; Tongpative, T. 2000: 201). The above value is still held in Thai society although time has changed. This is supported by the study of attitudes toward the values of Thai families conducted in 677 upcountry people aged between 15 to 55 years. The study found 99.6% of the participants thought that taking care of old patients was the responsibility of the daughters and sons. In addition, 86% of them reported that females should take these responsibilities (Wongsit, M. 1992: 6). The study is congruent with several studies in Thailand that the caregivers of cerebrovascular disease patients were mostly females and over 36% were daughters (Kopachon, C. 2002: 48; Natechang, S. 2002: 45; Perkdetch, B. 2002: 47; Sangboon, K. 2002: 61; Songwattanayut, W. 2002: 47; Thipsamniang, T. 2000: 52; Tuangsin, P. 2002: 60).

Concerning the caregiver role in taking care of cerebrovascular disease patients, females not only have this role but also other roles to of responsibility such as taking care of the family, taking the role of wife, mother, or daughter with responsibility to take care of parents. They also work for income to support the family. As society has changed, women have responsibility for expenses more (Chaichana, S. 2001: 83; Hawkins, 1996: 433; Luengamornlert, S. 1994: 103). Referring to the above, when a daughter has a role of taking care of parents with cerebrovascular disease, it is an additional responsibility besides those she has accepted previously (Musolf, 1991: 83). Therefore, it is considered as a heavy burden, affecting daughter to be unable to take many roles completely at the same time, thus leading to role conflict. From the study of Young and Kahana (1989: 663), it was found that caregivers who took care of elderly patients with heart disease felt that caregiving was a heavy burden which led to role conflict more than in other groups of caregiver. In addition, pathology and disease progress that changes uncertainly all the time caused the patients to need continual support. These also caused daughters to dedicate both physical and mental energy, including time for taking care of the patients. Previous studies (Kophachon, C. 2002; Songwattanayut, W. 2002) show that caregivers of cerebrovascular disease patients spent time for taking care between 17 to 24 hours a day. This decreased time for doing other activities and changed their life styles, which caused increased tension. Moreover, the expectation of society towards the caregiving role when parents were ill might also be one cause of strain. The above mentioned causes may lead to caregiver role strain if a daughter is unable to deal appropriately with stress or adapt herself to the role she has taken.

The foreign literature review indicates that factors influencing caregiver role strain consist of positive and negative factors. A negative factor is strain from worry which is considered as a caregiver barrier to a adaptation leading to role strain. Regarding positive factors, mutuality, preparedness, and rewards of caregiving are factors that encourage caregivers to adapt themselves for the most effective caregiver role, which decrease role strain.

Strain from worry is a factor affecting role strain of caregiver daughters. The reasons are that caregiving as a burden and added to the normal ones will cause more strain from worry about various matters, including personal health, safety, ability to take care of patients, and feelings that the patients are not the same as the persons they previously have known (Cantor, 1983: 600; Kerr & Smith, 2001: 434). In addition, increase of medical expenses nowadays is one of the factors leading daughters to have role strain (Sangboon, K. 2002: 79). Besides, the study conducted in daughters taking care of elderly parents found that strain occurring in during caregiving was caused by strain from worry about unpredictable events (Hawkins, 1996). However, besides strain from worry, caregiver role strain also depends on the relationship between daughter and patient in the duration of caregiving.

Mutuality refers to the positive quality of relationship between daughter and patient in the duration of caregiving which both persons have opportunity for nurturance to each other (Kneeshaw, et al., 1999: 128). As a result, both of them will receive benefits which may be satisfaction with activities they do together, realization of value of each other (Songwattanayut, W. 2002: 39). These good feelings are important motivations leading the caregivers willing to take care of the patients effectively and continuously even in difficult caregiving situations (Hirschfeld, 1983: 26). It is consistent with the study of Dwyer, et al. (1994) that showed a positive relationship in the duration of caregiving would decrease the feeling of the patient as a burden and reduce role strain of daughters taking care of elderly mother. Moreover, another important factor that increases the effectiveness of caregiving is preparedness.

Preparedness is the readiness of a daughter to do caregiving activities in order to fulfill patient needs, both physical and mental, including dealing with strain in the duration of caregiving. If caregivers have good preparation, they will be more confident about caregiving for patients (Hiranchunha, S. 1998: 82). This is consistent with Chureerat, K. (2002) study which found that caregivers of cerebrovascular disease patients who had more preparedness would have less role strain. The above mentioned study is congruent with one conducted by Archbold, et al. (1990) in caregivers of elderly people that showed caregivers with adequate preparedness before caregiving would have a low level role strain. Apart from preparedness, good feelings of caregiving, which are rewards of caregiving are considered to be important motivations to reduce role strain.

Rewards of caregiving refers to positive feelings about caregiving. These encourage caregivers to have self-esteem, realize the importance of life, and be proud to have a chance to take care of a person they love. Furthermore, they have understanding of pathology, duration and disease progress (Lackey & Gates, 2001: 325; Louderback, 2000: 97). These feelings help to reduce strain and burn-out of responsibilities, including being caregivers as shown in the study of Perkdetch, B. (2002: 64) conducted in caregivers of cerebrovascular disease patients. The study found that daughters who took care of their parents felt that caregiving was a way to reciprocate parents' kindness and express their gratefulness. In addition, they could get closer to each other. The above reveals that positive feelings of caregiving are motivations for taking care of patients with encouragement and satisfaction and without strain from the role received.

Besides strain from worry, mutuality, preparedness, and rewards of caregiving, there are also personal factors that have not been shown explicitly how they can affect role strain, and are family economic status and perceived level of patient dependency. The reason is that caregivers with higher economic status are able to afford medical services for patients more than those with the lower one, as a result, they can reduce the burden of caregiving (Robinson, 1990: 199). Therefore, family economic status may help caregivers to better deal with strain in the duration of caregiving . (Poowarawootpanich, W. 1994: 35; Smith, 1994: 37). On the contrary, the study of Picot (1995: 147) conducted in caregivers of elderly people found family economic status did not affect the strain in coping of caregivers. so it cannot be concluded how this factor affects role strain. Concerning the perceived level of patient dependency, it is one of the factors affecting role strain. Patients with a high perceived level of dependency or many limitations of taking care themselves need more care, which causes caregivers to spend more time in caregiving. Some of them have to be absent from work or quite their jobs in order to take care of the patients full time (Starrels, et al. 1997: 867). This is supported by the study investigating caregivers of elderly patients with chronic disease. The results show that the patients with a high level of dependency needed more care so that caregivers had to spend much time and energy to take care of them. As a result, it influenced caregivers'life styles and caused strain in the role received (Fasion et al., 1999: 250). The above findings are congruent with Khomson, K. (1997) study that elderly people with low ability of active daily living (ADL) by themselves caused high caregiver role strain. However, Blake and Lincoln (2002: 336) study found that limitations or level of ability to take care of themselves could not predict role strain.

From all the literature reviewed relating to Thai society, there is no study of the above mentioned factors about their effects on role strain of caregiver daughters of patients with cerebrovascular disease. Therefore, the above is the rationale for the researcher to determine those factors. And the results will be evidence to increase understanding of factors influencing role strain, specifically of caregiver daughters of patients with cerebrovascular disease. Moreover, information from the study will be useful in planning to help daughters to prevent or reduce risks of role strain in order to increase their potential to take care of the patients effectively.

Conceptual Framework

This study uses Roy’s Adaptation Model (Roy & Andrew, 1999: 32 – 56) as a research framework. It can be said that a person is an adaptation system consisting of body, mind and society, interacting with environments both internal and external to the body all the time. An adaptation process includes stimuli as input, transferring to the adaptation process which are the regular subsystem and cognator subsystem. The above mentioned process affects the output consisting of function, self-concept, role-function, and interdependence mode.

Stimuli influencing adaptation are environments both internal and external to a person which affect the person’s behavior consisting of focal stimuli, contextual stimuli, and residual stimuli. Focal stimuli are stimuli that directly impact on a person leading that person to respond immediately. While contextual stimuli refer to other stimuli in environments affecting adaptation with both positive and negative side. And residual stimuli are stimuli that possibly have effects on a person’s adaptation. All stimuli have pool effects transferring to the adaptation system and affect a person’s adaptation. Considering Roy’s Adaptation Model, when a daughter of a cerebrovascular disease patient take caregiver role, it is considered to be focal stimuli. Whereas strain from worry, mutuality, preparedness, and rewards of caregiving are contextual stimuli. The above stimuli are accumulated and transferred to the adaptation process. As a result, there is an adaptation of caregivers regarding the role strain of daughters in patients with cerebrovascular disease.

Concerning a concept of Roy’s Adaptation Model and the study of factors influencing caregiver role strain of daughters in patients with cerebrovascular disease, the researcher has adapted the conceptual – theoretical – empirical structure based on Fawcett and Down’s theory (1992: 106 – 107). The concept is used to connect the conceptual structure of Roy’s Adaptation Model to the factors being studied and instruments used to measure item. It can be said that daughters as caregivers of patients with cerebrovascular disease have different adaptation systems according to family economic status and perceived level of patient dependency. Moreover, taking the caregiver role by daughters who take care of patients with cerebrovascular disease is considered to be focal stimuli affecting adaptation, which is role strain. Strain from worry, mutuality, preparedness and rewards of caregiving, are contextual stimuli influencing adaptation–caregiver role strain as shown in figure 1. Furthermore, the conclusion of the relationships between strain from worry, mutuality, preparedness, rewards of caregiving, including personal factors which are family economic status and perceived level of patient dependency, and role strain of caregiver daughters of patients with cerebrovascular disease are shown in terms of the research concept in figure 2

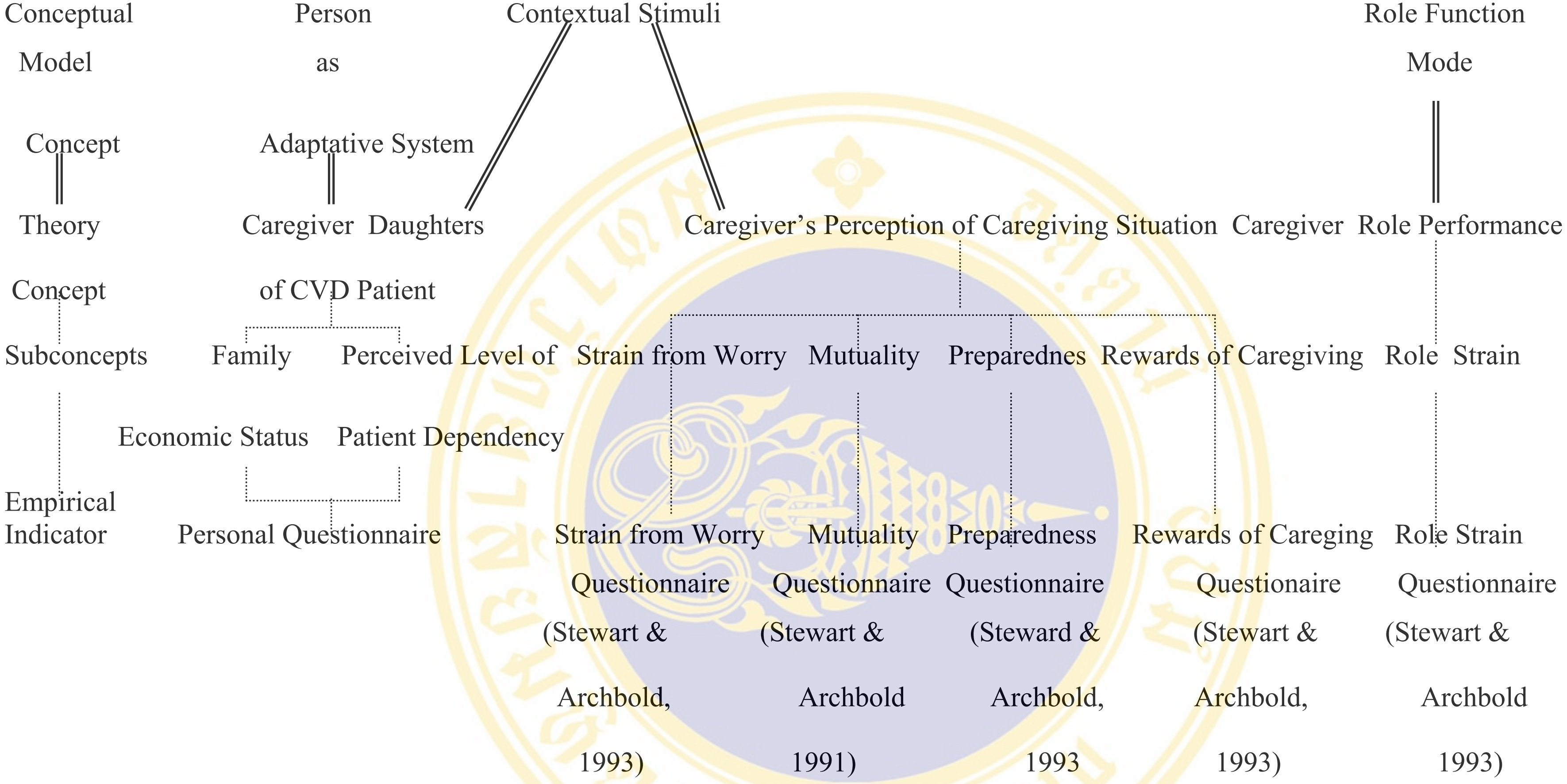

Figure 1 Concept-Theoretical-Empirical Structure of the Study

Remark: ═══ Propositions linking conceptual model and theory concept
┈┈┈ Operational definitions link the theory concepts to the empirical indicator

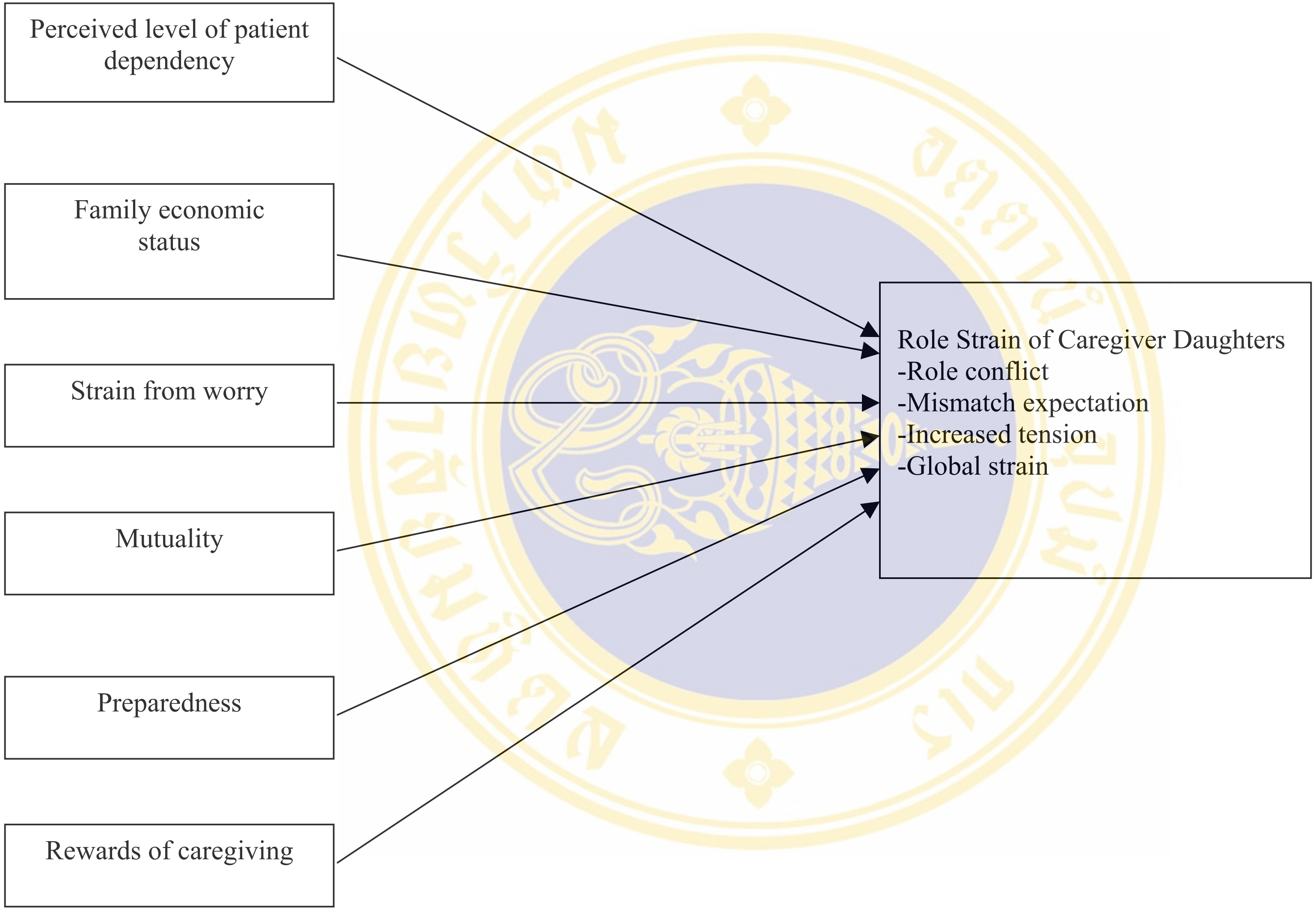

Figure 2 Conceptual Framwork

Research Questions

1. How does strain from worry, mutuality, preparedness, rewards of caregiving, perceived level of patient dependency and role strain of caregiver daughters of patients with cerebrovascular disease?

2. How does strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, and perceived level of patient dependency affect role strain of caregiver daughters of patiens with cerebrovascular disease?

Purposes of the Study

1. To investigate strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, perceived level of patient dependency, and role strain of caregiver daughters of patients with cerebrovascular disease.

2. To examine influences of strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, perceived level of patient dependency on role strain of caregiver daughters of patients with cerebrovascular disease.

Hypothesis

Strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, and perceived level of patient dependency can be used to predict role strain of caregiver daughters of patients with cerebrovascular disease.

Scope of the Study

This study aimed to determine strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, and perceived level of patient dependency affecting role strain of caregiver daughters of patients with cerebrovascular disease. The subjects were daughters who were main family caregivers and had experience of taking care of the patients with cerebrovascular disease at home for at least 3 weeks. Also they took the patients to follow-up at the neuromedical clinic of Out-Patient Departments at Prasart Neurological Institute or King Chulalongkorn Memorial Hospital. The duration of data collection was from January to May 2003.

Expected Benefits

1. To enable health care teams to understand the factors that affect role strain of caregiver daughters of patients with cerebrovascular disease.

2. To provide basic data for evaluation and nursing plans that help caregivers who are daughters of patients with cerebrovascular disease in preventing and reducing role strain.

3. To use the results as guidelines in nursing system planning and cooperating with health care teams to enhance the potential of caregivers in public, including providing knowledge to them, and improving preparedness of caregivers who are daughters of patients with cerebrovascular disease.

4. To provide guidelines for other research topics related to caregivers who are daughters of patients with cerebrovascular disease.

Definition of terms

Strain from worry refers to a daughter's perception of the difficulties of caregiving due to strain from worry about patients with cerebrovascular disease , the caregiver herself, and the family future. This factor was evaluated by using the strain from worry questionnaire of Stewart and Archbold (1993).

Mutuality refers to a daughter's perception towards the positive relationship between daughters and cerebrovascular disease patient in the duration of caregiving. It is caused by nurturance of each other, enabling them to receive rewards in terms of love, understanding, kindness, satisfaction, and realization of the value of each other. The mutuality questionnaire of Stewart and Archbold (1991) was used to evaluate this factor.

Preparedness refers to a daughter's perception of readiness for caregiving activities according to patients' need both in physical and emotional dimensions, including dealing with caregiver strain. For this factor, the preparedness questionnaire of Stewart and Archbold (1993) was used for evaluation.

Rewards of caregiving refers to daughter's perception towards positive feelings of caregiving, consisting of rewards of meaning, rewards of learning, financial rewards, spiritual rewards, and rewards of being there for the receiver. This factor was evaluated by the reward of caregiving questionnaire of Stewart and Archbold’s (1993). All dimensions of reward are explained as below:

Rewards of meaning meant that caregiving is good for increasing the meaning of life.

Rewards of learning meant that caregiving creates a learning process and more understanding of health and illness.

Financial rewards mean that caregiving enables caregivers to receive benefits possibly in terms of presents, rewards or money from relatives occasionally.

Spiritual rewards meant that caregiving is a way to accumulate goodness so that the caregiver may have a better life at present and in the future.

Rewards of being there for the receiver meant that caregiving is considered as a good opportunity to help and have interaction with patients.

Role strain refers to a daughter’s perception that she is unable to deal completely with various roles due to role conflict, mismatched expectation, increased tension and global strain. The role strain questionnaire of Stewart and Archbold (1993) was used to evaluate this factor.

Family economic status refers to a daughter’s perception towards the adequacy of average monthly family income. It was evaluated from the daughter’s demographic data questionnaire.

Perceived level of patient dependency refers to a daughter’s perception towards patient needs for caregiving. The patient’s demographic data questionnaire was used for evaluation of this factor.

CHAPTER II
LITERATURE REVIEW

This research aimed to determine factors role strain of caregiver daughters in patients with cerebrovascular disease. The researcher reviewed literature relating to cerebrovascular disease, concept of the caregiver, role of daughters in Thai families as caregivers, effects and role strain of caregiver daughters in patients with cerebrovascular disease, and the relationship among factors which are strain from worry, mutuality, preparedness, rewards of caregiving, family economic status and perceived level of patient dependency and role strain of caregiver daughters in patients with cerebrovascular disease. The details are as follow:

Cerebrovascular Disease

Cerebrovascular disease is caused when the brain lacks of blood to supply it which may be due to occlusion or rupture, leading to incompetence in that part of brain (Puangwarin, N. 2001: 757). Signs and symptoms, including severity level of cerebrovascular disease depends on the position and size of brain tissue with pathology of ischemia. Some patients may have Transient Ischemic Attacks (TIAS) that can be recovered from within 24 hours. Whereas for some patients, symptoms may exist for more than 24 hours but they can recovered within 3 weeks which is called Reversible Ischemic Neurological deficits (RIND). Concerning some patients, dysfunction may occur gradually and keep increasing. This symptom may occur from 1 to 2 hours or for several days. After the patient is treated until they have passed pass the critical period remaining, The pathology will affect the patient in each dimension as follows:

1. **Physical dimension**

1.1 Physical mobility impairment usually occurs in patients with pathology in medulla, or midbrain cerebella. The symptom usually found is hemiplegia, leading to weakness of paralytic muscles and pathology in the opposite side of brain. The patients will have muscle weakness, contraction, fists clenching, difficulty of arm and leg stretching, joint stiffness, loss of balance, causing mobility impairment.

1.2 .Communication impairment. The patients have impairment both in speaking and writing depending on the pathology of brain. Impairments mostly found are:

1.2.1 Receptive aphasia is caused by nicked brain disease at Wernicke's area, so the patient cannot understand the meanings of words heard or written communication.

1.2.2 Expression aphasia is caused by brain pathology at Broca's area. The patient can understand the words heard or written communication but is unable to communicate by speaking or writing.

1.2.3 Dysarthria is found in the patient with brain pathology in upper motor neurons, which causes impairment of vocal muscles and causes the patient to have a speaking impairment (Linton, 2000: 412-413). All the above mentioned impairment cause the patients to be unable to communicate their thoughts to others or they cannot understand other people's words (Taboonpong, N. et al., 1994: 10)

1.3 Chewing and swallowing impairments occurrs because of by impairment of the 5th, 7th, 9th, 10th and 12th pair of nerve which have function in controlling the movement of chewing and swallowing muscles so losing their functions causes the patient to have problems in swallowing. Lips are not fully closed causing food to flow out of the mouth, and food remaining in the mouth leads to following complications such as strangling, pneumonia and malnutrition (Dilorio & Price, 1990: 38; Phipps, 1991: 963; Westergren, et al., 2001: 262).

1.4 Feeling or perception impairment is found in patients with brain pathology in the parietal lobe, especially the right cerebral hemisphere. Impairments mostly found are:

1.4.1 Impairment of touching, pain, pressure, heat and coldness perception. The patients are unable to identify the contacted substance, which can easily cause harm to the patient because the body will have less feeling perception and less response to stimuli. In addition, it was found that the patients neglect the negative the environment. The patient will pay attention to the body or only one side of environment and neglect the negative side (Barker, 1994: 500).

1.4.2 Sighting perception impairment due to homonymous hemianopsis. The patients are unable to estimate distance or see overlapping images, which easily leads to accidents (Hansen, 1998: 607).

1.4.3 Impairment of time, people and place recognition cause the patients to be confused and misperceive affecting decision making and leading to misbehaviour.

1.5 Cognitive impairment is found in patients with brain pathology in the temporal lobe which causes the patient to lose memory both in the short and long past. Moreover, the patients lack concentration or attention, and are also unreasonable (Banasik, 2000: 1072) leading to inability in learning new things or solving their own problems.

1.6 Excretion impairment from brain pathology is found in the cerebral cortex. The problem mostly found is reflex incontinence due to bladder weakness. Moreover, decreased physical mobility accompanied by less water drinking may lead to constipation or difficulty in excreting

1.7 Sexual dysfunction. The cases mostly found are the male's penis can not become erect and females are unable to have orgasm, or there is less sexual desire causing a change in sexual relationship between couples.

2. Mind dimension

Brain pathology from cerebrovascular disease in the limbic system, which is the part controling emotional expression, causes the patient to perform differently, depending on the site of impairment. If the impairment occurs in the cerebrum, the patient will cry and laugh unreasonably. If there is impairment in the temporal lobe, the patient will be depressed (Adams & Victor, 1989: 354-360). Besides, the patient's ability to take care of themselves will be decreased causing them to be unable to do activities of daily living by themselves or they cannot do them according to their expectation. As a result, the patient will feel distress, stress and depressed (Grant, 1996: 896; Robinson & Mahoney, 1995: 86). In some cases, the patients have childish behaviors together with fear such as fear of disability, torment, repitition, being abandoned, and death. They feel lost when they need to depend on others and have decreased self-esteem. Some patients may feel bad-tempered, hopeless, angry, or aggressive (Bronstein, 1991: 1008).

3 Social dimension

Due to their illness and disability, patients have limitations in of daily living and need to depend on others for support, which may cause social problems as follows:

3.1 A change of family relationship, which is caused when the patients cannot take care of themselves and need to be supported by family members. Thus, The patients have to adapt themselves to their new role. For example, they used to be family leaders and go to work in order to support the family. Instead, they have to quit their job and stay home which makes them feel a lack of pride and self confidence. Some family caregivers have to go out to work instead of the patients, which is considered to be a barrier to effective caregiving. And if the family does not have preparedness or the patient does not have adaptation, there will be problems in family relationships.

3.2 A change of social relationship. Disability causes appearance changes to in the patients. Thus, the patients feel too shy to have social integration. Moreover, they want to separate themselves from others and do not care for others, causing a decrease in social relationships. If in the past the patients played a crucial role in society such as work or as leaders, when they are sick and cannot work as usual, there will be a lesser social role and less social integration. As a result, the patients may feel lonely, desperate, depressed and be unable to solve problems or deal with stress.

From the above, it has been seen that cerebrovascular disease affects patients in terms of bodily, mental and social aspects, which including decreases ability in taking care of themselves. Therefore, the patients need to be supported by family members.

Concept of Caregivers

Family caregiver refers to a relative or a person who takes care of the patient at home (Davis, 1992:2). This person is a member of the same family with a relationship such as spouse, daughter or son, relative or a possible other person who provides caregiving without compensation or rewards. The quality of caregiving may be different according to the type of relationship in each family or society. Caregivers can be categorized based on the level of caregiving responsibility as follows (Selected Committee on Aging, cited in Sirapo-ngam , Y.1996: 86; Suwanno, J.1998)

1. Primary caregiver is a person who has primary responsibility in taking care of the patient regularly and consistently more than others. The responsibilities emphasize activities of daily living such as eating or feeding, showering, and nursing care such as wound care, and medical preparation.

2. Secondary caregiver refers to another person in the caregiving network. This person may help in some activities but not regularly and consistently such as providing substitute caregiving or assisting the primary caregiver in taking care of the patient.However, this caregiver spends less time than a primary caregiver.

Each patient may have one primary caregiver and/or a secondary caregiver to provide caregiving. The decision on who will be primary or secondary caregivers is not only made according to the responsibilities of caregiving activities and time, but other factors also need to be considered. The factors such as the ability of caregiving, readiness, burden, role and responsibility need to be considered. From the literature review of Thai cerebrovascular disease patients and family caregivers it was shown that the majority of family caregivers were daughters by over 36%. It is the duty of the daughters to take care of their parents when they are old or ill, and it is considered as doing good merit and has a good value which is perpetuated from generation to generation.

Role of Daughters in Thai Families as Caregivers

Beliefs and values of Thai society relating to female roles from the past until now are various. The significant role of Thai women is the caregiver role given to persons in the family whether parents, husbands, daughters or sons, or siblings both in healthy or in illness status (Chaichana, S. 2001: 83-88). Referring to sons and daughters, if the parents are sick, daughters usually are the first choice of being the caregiver. This duty has been taught from their parents and perpetuated from generation to generation. In Thai society, the son usually was not expected to be the primary caregiver to play back their parents when they were ill. However, the norm of Thai people usually expected the son to become a monk for some duration of his life. Apart from that, parents still need their daughters to play a role in taking care of them when they are old or ill. The above is congruent with the study by Wongsith, M. (1992: 21) which found that 30% of Thai people in rural areas wanted daughters to take care of them when they were old or ill Especially,the youngest daughters were expected to take the role of caregivers more than other daughters (Caffrey, 1992: 110 ; Chaichana. S, 2001:76). Concerning the changes in terms of society, economics and technology, including the higher cost of living nowadays, females have to take much more responsibilities, got just in the family, such as working outside for a salary. Females have to take more roles and responsibility, and they are highly expected by society to be caregivers. This may cause role strain to caregiver daughters who have to take care of parents with cerebrovascular disease, either in daily life style changes or because they play other roles also.

Effects and Role Strain of Caregiver Daughters of Patients with Cerebrovasvula Disease

Caregiving for cerebrovascular patients, who need close care gaving by family caregivers may cause the caregivers to face patient’s changes in terms of both physical and emotional expression. As a result, family caregivers’ life styles are changed, which may lead to the following effects.

1. Physical dimension

To take care of cerebrovascular disease patients, family caregivers have to take care closely and consistently, which may lead to caregiver health problems in the duration of caregiving. Several studies conducted in cerebrovascular disease patient family caregivers found that the family caregivers had physical health problems in the duration of caregiving. The problems mostly found were muscle pain, headaches, dizziness, eating small amounts of food or eating at uncertain times, decreased weight, and inadequate rest (Kophachon, C. 2002: 49; Natechong, S. 2002: 45; Sangboon, K. 2002: 41; Songwattanayut, W. 2002:47; Tirapaiwong, P. 1997: 52). Besides, it was found some family caregivers felt that they themselves had more physical health problems than the patients (Cuellar & Buttes, 1999: 27). If the above circumstances still remain without any solutions, the family caregivers may also have sickness which may affect the quality of caregiving.

2. Mental and emotional condition

When family caregivers take a caregiver role, they have more duties and responsibilities. As a result, they may feel moody, distressed, feel like their lives are tied to the patients all the time, and are unable to do personal activities, causing them to burn themselves out by taking care of the patient (Anderson, et al., 1995: 846; Hughes, et al., 1999: 544; Wood, 1991: 198). And if the patients have more cognitive impairment with more changes in behavior and emotion, these can cause the family caregivers to have depression (Heuvel, et al., 2001: 675-676; Scharz & Robert, 2000: 87). The above results are congruent with the study of Teel et al. (2001: 53) conducted in 302 family caregivers of cerebrovascular disease patients. The study reveals that caregivers felt tired, sorrowful, sad, stressful and had depression in the duration of caregiving. Furthermore, they felt caregiving was a big burden. These are the effects of taking a caregiver role, which may cause caregiver sole strain.

The Relationship between Strain from Worry and Role Strain of Caregiver Daughters of Patients with Cerebrovascular Disease

Strain from worry is a feeling of difficulty which occurs in caregiving situations involving caregivers themselves or patients. Most caregivers tend to worry about unexpected events; especially, emergencies or their health and their responsibilities in families and outside. Because of these factors, caregiving is not fully done (Forebery-Warleyby, et al., 2000: 1649-1650; Kneeshaw, et al., 1999). Moreover, caregivers feel anxious about patient's health, pathology, and disease progression that may occur during caregiving. They also worry that patient disabilities may turn into permanent ones (Anderson, et al., 1995: 847; Cantor, 1983: 600; Krammer & Kipnis, 1995: 345) and worry about patient treatment expenses (Barush & Spaid, 1989: 673; Grant, 1996: 897). All those anxieties can cause strain in caregivers. Regarding the study of 100 cerebrovascular disease patient caregivers, it was found that strain from worry had a negative relationship with caregiver health (r = -.79, p < .001) (Natechange, S. 2002: 63). It shows that caregivers who have less strain from worry do not have later health problems; therefore, they can fully play the role of caregiver without role strain. Additionally, the study of Spark, et al. (1998) in 151 dementia patient caregivers shows that the mental health of daughter caregivers can be predicted by strain from worry by 33%. It can be seen that patient’s daughters have bad mental health because of strain from worry by caregiving and it causes them to be inefficient in adjusting themselves in the caregiver role and it leads to role strain later. Therefore, strain from worry may have a positive relationship with role strain of caregiver daughters of patients with cerebrovascular disease.

The Relationship between Mutuality and Role Strain of Caregiver Daughters of Patients with Cerebrovascula Disease

Mutuality is the positive quality relationship between a daughter and a patient which occurs during caregiving. Both of them share benefits with each other and they are satisfied with activities that they do together (Hirschfeld, 1983: 26). Furthermore, while they are together, they can learn, understand and appreciate each other more (Walker, 1990: 149). It can be seen from the study of Pohl, et al. (1995) that 98 daughters who took care of aged mothers had more good relationships with their mothers and they were satisfied with caregiving experiences. It demonstrates that a good relationship can reduce the feeling of obligation, so daughters are satisfied with their roles and do not have role strain. In addition, mutuality encourages caregivers to continuously take care of patients no matter how difficult caregiving situations are and it also reduces caregiver role strain (Hirschfeld, 1983: 26). Those finding are in accordance with the study of Dwyer, et al. (1994: 40) which found that mutuality has a negative relationship with caregiver role strain ($r = -.250$, $p < .01$). It also confirms the study of Songwattanayut, W. (2002) in 100 cerebrovascular disease patient caregivers which found that mutuality has a negative relationship with strain directly occurring from caregiving ($r = -.317$, $p < .05$) and direct strain from caregiving can be predicted by 5.2%. It can be seen that high mutuality can reduce the feeling of obligation and it is found to be an important persuasion for reducing role strain as well as affecting patients’s quality of life. Therefore, mutuality might have a negative relationship with role strain of caregiver daughters of patients with cerebrovascular diesase.

The Relationship between Preparedness and Role Strain of Caregiver Daughters of Patients with Cerebrovascular Disease

Preparedness is a daughter's readiness to carry out caregiving so that they can serve patient's physical and mental demands. It includes abilities to deal with problems occurring during caregiving (Smith, 1994: 31). Therefore, patient's daughters must have preparation on pathology, disease progression, patient changes in terms of physical, mental, emotional, and social aspect as well as complications that may occur and skills in taking care of cerebrovascular patients (Sripattarapinyo, J. 1997: 43) in order to increase their confidence in caregiving. Regarding the study of Bereton & Nolan. (2000: 503) in 87 cerebrovascular disease patient caregivers, it was found that caregivers needed knowledge and skills before patients left hospital so that they could be confident with caregiving and caregiver role strain could be reduced. That result was in line with the study of Bull, et al. (2000: 76-82) which shows that 57 aged patient caregivers who had preparation before patients left from hospitals were satisfied and accepted the caregiver role more than caregivers who did not get preparation. Therefore, role strain was reduced. Those finding are in accordance with Kophachon's study (2002: 55-56) in 100 cerebrovascular disease patient caregivers which found that preparedness had a negative relationship with caregiver role strain ($r = -.36$, $p < .001$) and caregiver role strain can be predicted by 13.1%. It demonstrates that adequate preparedness may have a negative relationship with role strain of caregiver daughters of patients with cerebrovascular disease.

The Relationship between Rewards of Caregiving and Role Strain of CaregiverDaughters of Patients with Cerebrovascular Disease

Rewards of caregiving is a positive feeling of daughters which occurs during caregiving. It gives a daughter appreciation of her own worth and she has a meaningful life. Furthermore, it encourages a caregiver to feel close, to love, and have bonding with a patient (Cantor, 1983). Those are rewards of caregiving which cause caregivers to have no role strain. It can be seen from the study of Riedel, et al. (1998: 165) in 200 caregivers of aged patients in a recuperative period that positive feelings which occurred in caregiving made caregivers have no feeling of obligation to take care of patients. Therefore, they can adjust themselves to their responsibilities without role strain. Moreover, the study of Tuangsin, P. (2002) in 105 cerebrovascular disease patient caregivers shows that caregiving is an opportunity to express gratefulness. When caregivers are willing to take care of patients, role strain is reduced. It agrees with the study of Kophachon, C.(2002) in 100 cerebrovascular disease patient caregivers which found that rewards of caregiving had a negative relationship with caregiver role strain ($r = -.312$, $p < .01$). Therefore, rewards of caregiving might have a negative relationship with role strain of caregiver daughters of patients with cerebrovascular disease .

The Relationship between Family Economic Status and Role Strain of Caregiver Daughters of Patients with Cerebrovascular Disease

Family economic status is one factor that can support caregiving because high family economic status can help caregivers to deal with problems during caregiving better than ones who have low family economic status (Walker, et al., 1990: 151). If they have high family economic status, they have less worry about expenses for equipment, appliances, or other services facilitating caregiving (Archbold, 1983:41). In addition, it was found that caregivers with low family economic status will assess the caregiving situations as the cause of strain and they tend to be more depressed than caregivers with high family economic status (Lee, et al., 2001: 44-56; Robinson, 1990: 189-203;). However, the study of Pohl, & Given (1994) in 159 daughters who took care for their disabled aging parents shows that daughters with high economic status saw caregiving as a special duty that influenced them to ignore other family members and decrease time for their own activities. Therefore, they may have caregiver role strain. On the other hand, the study of Picot (1995) shows that family economic status has no effect on caregivers facing role strain. Therefore, it is not clear how family economic status relates to role strain of caregiver daughters of patients with cerebrovascular disease.

The Relationship between Perceived Level of Patient Dependency and Role Strain of Caregiver Daughters of Patients with Cerebrovascular Disease

The perceived level of patient dependency is a perception of a daughter caregiver toward a cerebrovascular disease patient's demand for caregiving. The level of dependency is a sign reflecting patient demand of caregiving from others (Chaiyawong, K. 1996). If a patient has a high level of dependency, the caregiver has to exert more time and effort for caregiving so it may have an effect on role strain (Starrels, et al., 1997: 860-872). From the study of Kaewraya, K. (1996), it was found that patient's ability to do their routine activity has a negative relationship with caregiver role strain ($r = -.32$, $p < .05$). This is in accordance with the study of Starrel, et al (1997) in 1,585 caregivers taking care of parents or aged parents which found that caregivers had high role strain when their parents had much physical restriction because it takes much time to take care of them. This was in line with the study of Chan & Chang. (1999) in 50 cancer patient caregivers which shows that patients who had high physical restrictions were the cause of caregiver strain. It demonstrates that patient with a high level of dependency cause a high level of caregiver role strain. However, it is not congruent with the study of Blake & Lincoln (2002: 336) which mentioned that patient restrictions or ability to take care of themselves can not be used to predict caregiver role strain. Therefore, it is still not clear how the perceived level of patient dependency relates to role strain of caregiver daughters of patients with cerebrovascular disease .

Conclusion

Cerebrovascular disease is a chronic neural disease which is an important public heath problem caused when blood vessels are narrowed, clogged up, or broken. As a result, patients have physical disability or emotional expression problems and they have to be taken care of by relatives or family members after leaving from hospitals. Patient daughters are one group of people who play the role of caregiver in order to express gratefulness. Meanwhile, taking a caregiver role increases their responsibility which is considered to be difficult and decreases their free personal time so they cannot do other activities or completely take other roles for a long continued period of time. Those can cause strain from worry which may be from patients or caregivers themselves and it can lead to caregiver role strain. These feelings may decrease if caregivers have efficiency in preparedness, mutuality, high economic status, and perceive the level of patient dependency which are the important factors affecting personal differences in adjusting themselves into a caregiver role.

CHAPTER III

METHODOLOGY

This study is a descriptive research. The objective of this study is to study the influence of strain from worry, mutuality, preparedness, rewards of caregiving, family economic status and perceived level of patient dependency on role strain of caregiver daughters in patients with cerebrovascular disease. The details of the methodology are as follows.

Population and Sampling

The population is daughters who are the main family caregivers of patients with cerebrovascular disease and live in the same house with the patients and regularly take care of the patients. The samples did not receive a regular salary from taking care of the patients. They also brought the patients for follow-up at the Out-Patient Department of the neuromedical clinics at Prasat Neurological Institute or King Chulalongkorn Memorial Hospital.

Purposive sampling techniques were used as the criteria in the selection of subjects. Subjects were daughters who had at least three weeks of experience in taking care of patients with cerebrovascular disease at home to ensure that there was enough direct experience in a caregiving role (Kasemkitwattana, S. 1993: 456)

The sample size was calculated based on the formula for regression analysis by Throndike (Throndike, 1987, cited in Varapongsathorn, 1989:60)

$$n \quad 10k + 50$$

n= sample size

k= number of independent variables (in the study there were 6 variables) sample size 110

Setting

The study was conducted at Prasat Neurological Institute and King Chulalongkorn Memorial Hospital. These two hospitals are tertiary care level hospitals in Bangkok and have neuromedical clinics for treatment of cerebrovascular disease at the Out-Patient Department. These hospitals have clinical specialists in neuromedicine. At the in-patient department, the patients usually receive information and knowledge related to caregiving of patients with cerebrovascular disease at home such as, personal care, benderized diet preparation, tube feeding, transfer and exercise before discharge from the inpatient hospitals by nurses and the healthcare team. In addition, both hospitals have referal systems and home visits to follow-up some patients at home. In contrast, the Out-Patient Departments in each hospital have no formal program for counseling or giving advice to the patients and their caregivers for specific problems.

Research Instruments

The instruments used to collect data are divided in two parts

1. Demographic Information Form.

1.1 The Daughter Caregivers Demographic Information Form. This part included information about age, number of siblings, priority of siblings, priority of daughter, status, religion, education level, occupation, family income, adequacy of income, health problems, duration of caregiving, time spent in caregiving per day, experience of caregiving, caregiving assistance, reasons for taking a caregiver role, other roles of caregiving for the cerebrovascular patient, information and skill training to care for the patients.

1.2.1 The Patient Demographic Information Form. This part included information about gender, age, status, religion, medical diagnosis, disability, co-morbidity, level of patient dependency, ability to think and communicate, medical expenses, and complications.

1. Mutuality questionnaire, rewards of caregiving questionnaire, preparedness questionnaire and role strain questionnaires. These questionnaires were developed by Stewart & Archbold, (1986, 1991, 1993) and developed from the result of qualitative

research studies related to caregivers of chronic illness patients and continuously developed to become a standardized instrument These instruments were used with elderly caregivers with chronic illness to test the level of reliability. Similarly, in Thailand, these instruments have been tested for reliability with caregivers of patients with cerebrovascular disease . The value of Cronbach's Alpha Coefficient is presented in the appendix D.

The strain from worry questionnaire and rewards of caregiving questionnaire were translated into theThai language by Saipin Kasemkitwattana and back translated into English by Punchalee Wasanasomsithi, a bilingual specialist to ensure the accuracy of language. The mutuality questionnaire, preparedness questionnaire, and caregiver role strain questionnaires were translated into theThai language by Wiraphun Wirojrat and colleague and back translated into English by a bilingual specialist to ensure the accuracy of language. These were improved by comparing the results of the research that was related to this study for consistancy in a Thai context. Details of the questionnaires are as follows.

2.1 The strain from worry questionnaire consisted of 15 negative questions, which asked about worry during caregiving for the patient. It used a 5 point rating scale for responses ranging from 1 (Not at all) to 5 (A great deal).The total score ranged from 15-75 points. The higher score meant high strain from worry and a lower score meant low strain from worry.

2.2 The mutuality questionnaire consisted of 15 positive questions which, asked about positive relationships during caregiving. It used a 5 point rating scale for responses ranging from 0 (Not at all) to 4 (A great deal).The total score ranged from 0-60 point. A higher score meant high mutuality and a lower score meant low mutuality.

2.3 The preparedness questionnaire consisted of 8 positive questions, which asked about the perception of preparedness to give care to patients .It used a 5 point rating scale for responses ranging from 0 (Not at all) to 4 (A great deal). The total score ranged from 0-32 points. A higher score meant high preparedness and a lower score meant low preparedness.

2.4 The rewards of caregiving questionnaire consisted of 27 positive question, which asked about positive feelings from caregiving. It used a 5 point rating scale for responses ranging from 1 (Not at all) to 5 (A great deal). The total scores ranged from 27-135 points. A higher score meant high rewards of caregiving and a lower score meant low rewards of caregiving.

2.5 The Caregiver role strain questionnaire consisted of 42 negative questions, which asked about caregiver role strain and feelings of difficulty in taking the role of caregiver, divided as follow:

2.5.1 Role conflict consisted of 14 negative questions, which asking about the conflict of taking the role of caregiver and the barriers to other roles. It used a 5 point rating scale for responses ranging from 0 (Not at all) to 4 (A great deal). The total scores ranged from 0-56 points. A higher score meant high role conflict and a lower score meant low role conflict.

2.5.2 Role mismatched expectation consisted of 7 negative questions, which asked about disturbance once to the caregiver's mind. It used a 5 point rating scale for responses ranging from 0 (Not at all) to 4 (A great deal). The total scores ranged from 0-28 points. A higher score meant high role mismatched expectation and a lower score meant low mismatched expectation.

2.5.3 Increased tension consisted of 14 negative questions, which asked the effects of taking the role of caregiver on their lifestyle. It used a 5 point rating scale for responses ranging from 0 (Not at all) to 4 (A great deal). The total scores ranged from 0-56 points. A higher score meant high increased tension and a lower score meant low increased tension.

2.5.4 Global strain consisted of 7 negative questions. The questions from 1-6 asked about their level of confidence in caregiving to the patient The score for responses ranged from 0 (Not at all) to 4 (A great deal). The 7 th item asked about their level of confidence in caregiving to the patient. It used a 5 pint rating scale for responses ranging from 4 (not confident) to 0 (the most confident) The total scores ranged from 0-28 points. A high score meant the caregiver had high global strain; a low score meant low global strain.

Reliability

The researcher tried out these instrument with 20 daughter caregivers of patients with cerebrovascular disease with similar characteristics to the samples of the study. The total samples were 110. Reliability was assesed by Cronbach's Alpha Coefficient . The reliabilities for the instruments were as follows.

Instrument	n= 20	N=110
Strain from worry	0.90	0.76
Mutuality	0.89	0.88
Preparedness	0.76	0.85
Rewards of caregiving	0.93	0.90
Role strain	0.92	0.91
Role conflict	0.88	0.76
Mismatched expectation	0.68	0.41
Increased tension	0.87	0.89
Global strain	0.67	0.69

Human Rights Protection of the Samples

The researcher was aware of research ethics and respected the human dignity of samples and possible effects. The researcher provided human rights protection to the samples by requesting permission to conduct the research from the Faculty of Graduate Studies, Mahidol University and this was presented to the human ethical committee at the two hospitals, Prasat Neurological Institute and King Chulalongkorn Memorial Hospital. When permission to collect data was granted, the researcher began to collect the samples. Before the data collection began, the researcher explained the objectives and the confidentiality of data use. The samples felt free to participate and could withdraw at any time from the study. Withdrawal from participation would not affect themselve or the medical care of patients in any way. Moreover, the sample could ask question when they were unclear. After they were informed of human rights protection, the samples signed the consent form to participate in the research, (Appendix A)

Data Collection

The researcher conducted all data collection and surveyed the names of the cerebrovascular patients and approached the caregivers while they were waiting in the waiting area at the Out-Patient Department of neuromedical clinics to ensure the inclusion criteria. The researcher explained the purpose of the research study and the protection of human rights of samples. When the samples agreed to take part in the research they signed the consent form.

Regarding data collection, if the sample could read and write, the researcher let them answer the questions by themselves. The samples could ask questions and receive clarification from the researcher. If the sample could not read or write, the researcher did the interview and had a rating feeling card to help them answer the questionnaires. The researcher started with the demographic information of the caregiver, followed by demographic information of the patient, mutuality questionnaire, rewards of caregiving questionnaire, preparedness questionnaire and caregiver role strain questionnaire. The approximate time for each interview was about 40 minutes. In case that, there was only one caregiver accompanied with the CVD patient the researcher conducted the interview near the patient in case the patient in need help. For those could not do the interview at the clinic, the researcher asked for the sample's address and telephone number and made an appointment to collect data at the samples' homes with their permission. The researcher collected data as follows:

Prasat Neurological Institute	Mon.-Fri.	08.00-12.00 a.m.
King Chulalong korn Memorial Hospital	Mon.-Tue.	01.00-04.00 p.m.

Data Analysis

Data was analyzed by a computer program setting the significance level of statistics at .05 .The steps in analysis were as follows:

1. Analyzing the demographic information data of the samples and the patients by frequency and percentage.

2. Calculating the range, the mean and the standard deviation of all the variables which were strain from worry, mutuality, preparedness, rewards of caregiving, perceived level of patient dependency and role strain.

3. Pearson’s product moment correlation coefficient was uesd with all the variables including strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, perceived level of patient dependency and role strain.

4. Multiple regression coefficients were analyzed to examine the influencing of strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, perceived level of patient dependency on role strain of caregiver daughters of patients with cerebrovascular disease by using the stepwise regression method. Assumption must be made in order to use multiple regression.

CHAPTER IV
RESULTS

This research aimed to study factors influencing role strain of caregiver daughters of patients with cerebrovascular disease. The samples were 110 daughters of patients who were followed-up at neuromedical clinics of Out-Patient Departments at Prasart Neurological Institute, or King Chulalongkorn Memorial Hospital. The methods of data collection were questionnaires and interviews: 40 samples completed questionnaires; 68 of the samples were interviewed at the hospitals, and 2 were interviewed at home. The findings are as follows.

Demographic Information of Caregivers

The samples were between 18 – 64 years old with an average of 39 years. Most of them (86.4 %) had more than 2 siblings. Nearly half of them (44.5%) were the last child. More than half (56.4 %) were single. Almost all of them (95.5 %) were Buddhist. The number of samples who completed elementary education were are the same number of the samples who completed a bachelor’s degree (29.1 %). In addition, more than half of them (52.7 %) were unemployed and 27.3 % quit their jobs to take care of the patients. With regard to family income, the largest group of them (36.4.%) earned between less than 5,000 and 10,000 baht per month (mean = 22,027.27, S.D. = 24,806.23) and almost half of them (49.1 %) said they earned sufficient income but had no savings. The demographic information of caregivers is presented in Table 1.

Table 1 Demographic Information of Caregivers (n=110)

Information	Number	Percent	Information	Number	Percent
Age (years)			**Religion**		
Adolescence (15-21)	6	5.5	Buddhist	105	95.5
Adult age (22-40)	60	54.5	Muslim	4	3.6
Middle age (41-60)	42	38.2	Christian	1	0.9
Elderly (>60)	2	1.8			
Min =18, Max=64			**Education level**		
Mean=39			No formal education	2	1.8
S.D.=9.89			Elementary level	32	29.1
			High school level	27	24.5
Number of sibling (person)			Diploma/Certificate	15	13.6
			Bachelor degree	32	29.1
1-2	15	13.6	Master degree	2	1.8
>2	95	86.4			
Priority of Child			**Occupation**		
The first child	22	20.0	Working	52	47.3
The middle child	39	35.4	Full time	41	37.3
The last child	49	44.5	Part time	11	10.0
			Not working	58	52.7
			Leaving job for being caregiver	30	27.3
Marital status					
Single	62	56.4	House wife	18	16.4
Married	44	40	Student	7	6.4
Divorce	2	1.8	Retire from government service	2	1.8
Separate	2	1.8			
			Seeking for the job	1	0.9

Table 1 Demographic Information of Caregivers (n=110) (Continued)

Information	Number	Percent	Information	Number	Percent
Family income			**Sufficiency of income**		
(baht/month)					
<5,000 – 10,000	40	36.4	Insufficient money and debt	21	19.1
10,001-15,000	15	13.6			
15,001-20,000	20	18.2	Sufficient money but no savings	54	49.1
20,001-25,000	9	8.2			
25,001-30,000	4	12.7	Sufficient money and savings	35	31.8
>30,000	12	10.9			
Min=3,000, Max=200,000					
Mean=22,027.27 , S.D.=24,806.23					

In terms of experiences of caregiving of caregivers, it was found that most of the samples (40.9%) had a duration of caregiving from 1 to 12 months with an average of 26.7 months (S.D. = 32.21). The average time that they spent in caregiving per day was 12.8 hours (S.D. = 6.90) ; 30% of them spent time in caregiving per day between 9 and 12 hours. Most of them (87.3 %) had no experience in caregiving before. 77.3 % said they had received information and skills training to care for patients with cerebrovascular disease. Most of them (85.5 %) had an assistant and more than half of these assistants (55.5 %) were their siblings. In addition, 35.5 % of them had health problems before taking the caregiving role, and 49.1 % had health problems during taking the caregiving role. Health problems found were musculoskeletal pain, stress or anxiety, insomnia, and fatigue. The reasons for of becoming caregivers were because of duty or responsibility, and love and bonding (79.1 % and 77.3 % respectively). Some of them (26.4 %) had other person to care for as well as the CVD patient.

53.6 % of them perceived the level of patient dependency at a high level. The information related to caregiving situation is presented in Table 2.

Table 2 Information Related to the Caregiving Situations (n=110)

Information	Number	Percent	Information	Number	Percent
Duration of caregiving (month)			**Time spent in caregiving**		
3/4 month	9	8.2	**(hours/day)**		
1-12 months	45	40.9	1-4	16	14.5
13-24 months	23	20.9	5-8	15	13.6
25-36 months	9	8.2	9-12	33	30.0
37-48 months	7	6.4	13-16	15	13.6
49-60 months	4	3.6	17-20	13	11.8
>60 months	13	11.8	21-24	18	16.4
Min=3/4 Max=144			Min=2, Max=24		
Mean=26.7, S.D.=32.21			Mean=12.8, S.D.=6.90		
Experience of caring			**Caregiving assistant**		
No	96	87.3	No	16	14.5
Yes	14	12.7	Yes*	94	85.5
CVD	4	3.6	Sibling	61	55.5
CA	3	2.7	Father/Mother	22	20.0
Elderly	3	2.7	Nephew/Niece	13	11.8
Paralysis	2	1.8	Son/Daughter	7	6.4
Liver disease	1	0.9	Relative	6	5.4
Tuberculosis	1	0.9	Sister in law	5	4.5
Other person caring responsibility			**The reason of becoming**		
except CVD patient			**Caregiver****		
No	81	73.6	Duty/Responsibility	87	79.1
Yes	29	26.4	Love/Bonding	85	77.3
Child	13	11.8	No one else was		
Niece/Nephew	8	7.3	available to assume	34	30.9
Aging parent	7	6.4	caregiving role		
Husband	1	0.9	Willing to caregiving	3	2.7

Table 2 Information of Related Caregiving Situation (n=110) (continued)

Information	Number	Percent	Information	Number	Percent
Health problem before taking caregiving role			**Health problem during taking caregiving role**		
No	71	64.5	No	56	50.9
Yes ***	39	35.5	Yes✞	54	49.1
Musculoskeletal pain	7	6.4	Musculoskeletal pain	28	25.4
Headache/Migraine	6	5.5	Stress/Anxiety	15	13.7
Thyroid	5	4.5	Insomnia	13	11.8
Peptic ulcer	4	3.6	Fatigue	12	10.9
Hypertension	4	3.6	Headache/Migraine	5	4.5
Allergy	4	3.6	Fever	4	3.6
Stress/Anxiety	3	2.7	Abdominal pain	3	2.7
Diabetes mellitus	2	1.8	Dizziness	3	2.7
Hypercholesterol	2	1.8	Weight loss	3	2.7
Asthma	2	1.8	Hypertension	1	0.9
Numbness	2	1.8	Numbness	1	0.9
Renal disease	1	0.9			
Fever	1	0.9	**Information and skill training to care patients with CVD**		
Anemia	1	0.9			
CA cervix	1	0.9	No	25	22.7
			Yes	85	77.3
Perceived level of patient dependency					
Little	9	8.2			
Moderate	42	38.2			
High	59	53.6			

* each caregiver had more than one caregiving assistant

** each caregiver had more than one the reason becoming caregiver

*** each caregiver had more than one health problem before taking caregiving role

✞ each caregiver had more than one health problem during taking caregiving role

Demographic Information of Patients with Cerebrovascular Disease

Most of the patients with cerebrovascular disease are female (70.9 %) and 86.4 % of them are older than 60 years old (mean = 69.88, S.D. = 8.90). The marital status was found to be almost equal for both married (46.4 %) and divorced (45.5 %). Most of them (95.5 %) are Buddhist. 82.7 % of them were diagnosed with ischemic stroke. Almost half of them (46.4 %) have left hemiplegia, and 90.9 % have co-morbidity such as hypertention, diabetes mellitus,and hyperlipidemia. Hypertension was the most commonly found (71.8 %). 32.7 % had complications, and 43.6 % had memory deficit. 54.6 % of them had dysarthria. More than half of them (60 %) were slow in cognition and decision. 53.6 % of the patients could be reimbursed for medical cost from the government. Demographic information of patient with cerebrovascular diseaseis presented in Table 3.

Table 3 Demographic Information of Patients with Cerebrovascular Disease (n=110)

Information	Number	Percent	Information	Number	Percent
Gender			**Disability**		
Male	32	29.1	Left hemiplegia	51	46.4
Female	78	70.9	Right hemiplegia	47	42.7
			Paraplegia	2	1.8
Age (years)			Tetraplegia	10	9.0
Middle age (41-60)	15	13.6			
Elderly age (>60)	95	86.4	**Memory**		
Min=48, Max=91			Normal	58	52.7
Mean=69.88, S.D.=8.90			Deficit	48	43.6
			Loss	4	3.6
Marital status					
Married	51	46.4	**Speech**		
Widowed	50	45.5	Normal	37	33.6
Divorced	4	3.6	Dysarthria	60	54.6
Separated	5	4.5	Aphasia	13	11.8

Table 3 Demographic Information of Patient with Cerebrovascular Disease (n=110) (continued)

Information	Number	Percent	Information	Number	Percent
Religion			**Cognition and decision**		
Buddhist	105	95.5	Normal	38	34.5
Muslim	4	3.6	Slow	66	60.0
Christian	1	0.9	Amnesia	6	5.5
Diagnosis			**Complication**		
Ischemic stroke	91	82.7	No	74	67.3
Hemorrhage	15	13.6	Yes**	36	32.7
Ischemic & Hemorrhage	4	3.6	Joint stiffness	22	20.0
			Pressure sore	14	12.7
			Pneumonia	5	4.5
Co-morbidity			Epilepsy	5	4.5
No	10	9.0	Urinary tract infection	4	3.6
Yes*	90	90.9			
Hypertension	79	71.8	**Source of payment**		
Diabetic mellitus	40	36.4	Reimbursement from the government	59	53.6
Hyperlipidemia	28	25.5			
Heart	18	16.4	Own payment	42	38.2
Gout	5	4.5	Universal coverage card	3	2.7
Renal disease	5	4.5	Social welfare	3	2.7
Other (Asthma, Dementia,Parkinson Peptic ulcer, Osteoporosis, Cirrhosis)	12	10.9	Aging card	2	1.8
			Health insurance	1	0.9

*each patient had more than one co-morbidity

** each patient had more than one complication

Strain from worry, mutuality, preparedness, rewards of caregiving, perceived level of patient dependency and role strain

It was found that the samples had strain from worry (mean = 42.60, S.D. = 10.91, skewness = -.241), mutuality (mean = 34.67, S.D. = 11.32, skewness = -.284), preparedness (mean = 21.38, S.D. = 5.79, skewness = -.270), rewards of caregiving (mean = 99.82, S.D. = 18.09, skewness = -.503) and perceived level of patient dependency (mean = 2.45, S.D. = 0.64, skewness = -.770) at a rather high level whereas role strain was at a low level (mean = 32.54, S.D. = 21.73, skewness = 1.038). It was also found that the highest mean score of role strain was increased tension (mean = 13.07, S.D. = 10.22) while mismatched expectation was the lowest mean score (mean = 4.10, S.D. = 3.48). Strain from worry, mutuality, preparedness, rewards of caregiving, perceived level of patient dependency and role strain are presented in Table 4.

Table 4 Range, Mean, Standard Deviation, and Skewness of Strain from Worry, Mutauility, Preparedness, Rewards of Caregiving, Perceived Level of Patient Dependency, and Role Strain

Variables	Possible Range	Actual Range	Mean	S.D.	Skewness
Strain from worry	15-75	17-67	42.60	10.91	-.241
Mutuality	0-60	7-60	34.67	11.32	-.284
Preparedness	0-32	3-32	21.38	5.79	-.270
Rewards of caregiving	27-135	54-131	99.82	18.09	-.503
Rewards of meaning	12-60	18-59	44.95	8.65	
Rewards of learning	4-20	4-20	15.12	3.20	
Financial rewards	2-10	2-10	4.77	1.98	
Spiritual rewards	6-30	9-30	22.67	5.94	
Rewards of being there for the patient	3-15	5-15	12.30	2.63	
Perceived level of patient dependency	1-3	1-3	2.45	0.64	-.770
Role strain	0-168	3-112	32.54	21.73	1.038
Role conflict	0-56	0-42	7.67	9.13	
Mismatched expectation	0-28	0-19	4.10	3.48	
Increased tension	0-56	0-50	13.07	10.22	
Global strain	0-28	0-21	7.71	4.48	

The relationship among strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, perceived level of patient dependency, and role strain

The analysis of correlation among all variables by the Pearson's Product Moment Correlation Coefficient found that strain from worry was a positively related to role strain at a moderate level with statistical significance (r = .447, p < .001). Meanwhile, preparedness, rewards of caregiving, and family economic status was negatively related to role strain at a low level with statistically significance (r = -.295, p < .01, r = -.226, p < .01, r = -.197, p < .05 respectively). Moreover, it was also found that the independent variables were related to each other at a level of lower than 0.8; this meant that there was no violation of assumption of multicollinearity for regression analysis. The relationship among strain from worry, mutuality, preparedness, rewards of caregiving, family economic status, perceived level of patient dependency is presented in Table 5.

Table 5 Pearson's Product Moment Correlation Coefficient between all Variables

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. Strain from worry	1.000						
2. Mutuality	.140	1.000					
3. Preparedness	.055	.322***	1.000				
4. Rewards of caregiving	.101	.516***	.634***	1.000			
5. Family economic status	-.091	-.015	.212*	.240*	1.000		
6. Perceived level of dependency	.122	-.095	.152	.115	-.114	1.000	
7. Role strain	.447***	-.071	-.295**	-.226**	-.197*	.061	1.000

* p<.05,** p<.01,*** p<.001

Prediction of role strain

The analysis of the stepwise multiple regression lessening is used to examine the predictability of role strain. Therefore, the variables would be tested in multiple regression analysis using the stepwise method. The assumption testing of multiple regression analysis was met to perform the analysis (Appendix F).

From stepwise multiple regression analysis, strain from worry was the first predictor of role strain and it explained about 20 %. of total variance of caregiver role strain ($F_{(1, 108)} = 27.010$, $p < .001$). Preparedness was the second predictor of role strain and it explained role strain up to 30.3 % ($F_{(1, 107)} = 15.733$, $p < .001$). Prediction of role strain is present in Table 6.

Table 6 Predictability by Strain from Worry and Preparedness

Variables	**R**	**R Square**	**R^2 Change**	**F Change**	**b**	**Beta**	**t**	**P Value**
Strain from worry	.447	.200	.200	27.010	.891	.447	5.197	.000
Preparedness	.550	.303	.103	15.733	-1.203	-.321	-3.966	.000

CHAPTER V

DISCUSSION

The research aimed to study the influences of strain from worry, mutuality, preparedness, rewards of care giving, family economic status, and perceived level of patient dependency on role strain of caregiver daughters of patients with cerebrovascular disease. The samples were daughters of the cerebrovascular disease patients. The discussion of the study is presented as follows.

Demographic Information of Caregivers

The samples in the study were between 18 – 64 years old. The average age was 39 years (S.D. = 9.89), which is in adulthood. This is contrast to the previous studies in Thailand (Kopachon, C. 2002: 47; Natechange, S. 2002: 45; Sangboon, K. 2002: 61; Songwattanayut, W.2002: 47; Thipsamniag, T. 2000: 52; Tuangsin, P. 2002: 61), which found that most caregivers were in middle age. This is due to the fact that the previous studies are of caregivers as a whole. None of them have specified a group of daughters as the caregivers, which may have caused the difference in age. The study showed that more than half of them (56.4 %) were single. This enabled them not to worry about house chores or taking care of other family members. They then were able to become a caregiver, which is consistent with the result of a previous study (Somnarint, 1995: 70). Besides, 52.7 % of them were unemployed, which enabled them to take care of the patients effectively, and they were pleased and willing to take the role of a caregiver. This is congruent with the reasons for taking a caregiver role such as responsibility/duty and love/bonding (see Table 2).

The result of the study shows that some of the samples (35.4 %) had health problems before becoming caregivers. The problems were musculoskeletal pain, headache or migraine, hypertension, and allergy, which showed that there were some limitations in caregiving. During caregiving, 49.1 % of the health problems found were musculoskeletal pain, stress or anxiety, insomnia, and fatigue (see Table 2). This is congruent with previous studies (Kophacon, C. 2002; Natechange, S.2002: 46; Navarat, W.2002: 47; Perkdetch, S. 2002; Songwattanayut, W. 2002: 48), which found that caregivers have both physical and mental problems. The problems may be because of high responsibilities of caregiving by daughters, which decreases self-care activities. These health problems may reduce the ability and quality of caregiving. In terms of caregiving, more than half of the samples (53.6 %) assessed the patient dependency level at a high level. The patients needed assistance in daily routines and for a high duration of caregiving, which is in accordance with the fact that the samples spent the average duration of caregiving of 12.8 hours per day, close to that of Thipsamniag, T. (2000), which indicated that it was 12.23 hours per day. The samples were also assisted by other family members in caregiving up to 85.5 %. Most assistants were their siblings (55.5 %), which is consistent with previous studies (Kophachon, C. 2002: 49; Natechange, S. 2002: 46; Navarat, W. 2002: 48; Sangboon, K. 2002: 63; Songwattanayut, W. 2002: 47; Wongjunlongsin, 1999: 48) in which most caregivers were family members. It proves that the responsibilities of a patient's caregiving are not left to only one person, but the whole family is part of it.

Demographic Information of Patients with Cerebrovascular Disease

The result showed that 70.9 % of the patients were old women, with the average age of 69.88 years old. In contrast to previous studies, which found that most of the patients were male (Kopachon, C. 2002; Natechang, S. 2002; Sangboon, K. 2002; Songwattanayut, W. 2002; Thipsamniang, 2000; Tuangsin, P. 2002) More female patients were found than male patients. It may be because of the decrease of estrogen hormone in elderly women which reduces the level of high-density lipoprotein (HDL). Meanwhile, the increasing level of low-density lipoprotein (LDL) and cholesterol affects the blood vessels to solidify faster and become less flexible. In addition, the decreasing of estrogen level reduces factor II, VII, IX, and X of blood vessel solidification (Mehring, 1994: 751), along with the change in the anatomy of blood vessels in the elderly; smooth muscle cells and lipids gather in the artery in the intima section, solidify and resize blood vessels and lessen its elasticity (Thongchareon, 1993: 72). Hypertension is a factor to increase the risk of cerebrovascular disease in females (Roquer, et al. 2003: 1581). Hypertension is a particularl risk factor and can cause cerebrovascular disease 3.14 times more compared to normal people. Diabetes mellitus can be a risk and cause of cerebrovascular disease 2.5 – 4 times more than normal people (Pasunan, N 2002: 158 – 159). The above information supports the result that there were three initial diseases to be found in the patients, which were hypertension, diabetes mellitus, and hyperlipidemia (see Table 3). These diseases are all significant factors to cause cerebrovascular disease. As these diseases accelerate atheroma in artery walls, which causes thrombosis or emboli to block the tip of the cerebrovascular system, and it causes cerebral infraction (Phuangwarin, N. 2001: 41). Moreover, it is a fact that up to 82.7 % of the patients were diagnosed with ischemic stroke. This is because the occurrence rate of hemorrhage stroke is only 10 – 25 % of all cerebrovascular disease patients; more than half of them are found in middle age; the disease is severe and death rate is very high. Ischemic stroke, on the other hand, gradually proceeds its progress (Sangsuwan, J. 1998: 83-84). Therefore, ischemic stroke was found much more than hemorrhage stroke, in accordance with previous studies both domestically and internationally (Appleros,et al., 2003; Carod-artal, et al., 2000: 2995; Lai, et al., 2003: 489; Perkdetch, B. 2002; Rathore, et al., 2002: 2718; Songwattayut, W. 2002: 50; Wongjunlongsin, S. 1999: 47).

The study findings show that 46.4 % of the patients had left hemiplegia. This is because of the pathological condition of the right hemisphere, which deals with perception, thinking, memory, and emotional expression. It then causes patients to have slower thinking and decision making. It was shown that 43.6 % of the patients had memory deficit, and 60 % had slow cognition and decision making, which is consistent with previous study (Kophachon, C. 2002). 42.7 % of the patients had right hemiplegia, which means the left hemisphere, which deals with speech and communication, has a pathological condition. It was found that the patients had dysarthria and aphasia, 54.6 % and 11.8 %, respectively, supporting a previous study by Sangboon, K.(2002). It showed that their illness caused them gradually to be unable to help themselves, and they necessarily need assistance from family members. Besides, 32.7 % of the patients were found to have complications, which were joint stiffness (20 %), pressure sore (12.7%), pneumonia (4.5%), and epilepsy (4.5%) respectively (see Table 3). Even though 77.3 % had received information and skill training about caregiving for the patients, this suggests that the caregiving quality was not good enough. The nursing system should provide more assistance to enhance the efficiency of caregiving to prevent complications.

Strain from Worry

The result showed that the samples had a range of strain from worry scores between 17 – 67 (mean = 42.6, S.D. = 10.91, skewness = -.241). This shows that they had a rather high level of strain from worry, which is consistent with the study of Sangboon, K. (2002) who found that caregivers felt high strain from worry. This might be because that 40.9 % of the samples took care of the patients during the first year of sickness, which is in the recovery process. During this time there are many changes in symptoms (Phungwarin, N. 2001). This period can be one of the factors causing the samples to worry. Although most of the samples (77.3 %) had received caregiving preparation before becoming a caregiver, 87.3 % of them had no experiences in caregiving for patients before. It caused them to worry about the health status of the patients (mean = 3.82, S.D. = 1.235), and whether the sickness would get worse (mean = 3.23 S.D. = 1.512). The samples were worried about the patients continuously, because of love and bonding, and it can be seen that they are worried about the safety of the patients (mean = 3.08, S.D. = 1.580). And they do not want to leave the patients alone or have anyone else to take care of them (mean = 3.28, S.D. = 1.563), as they are not confident that other people would take as good care of the patients as they do. Besides, some of the samples have health problems both before and during caregiving the patients (see Table 2). This causes them to worry about how long they can take care of the patients, and who would take care of the patients if anything happened to them (mean = 2.93, S.D. = 1.652). It is congruent with the study of Kneeshaw, et al. (1999), which found that daughters were worried if their health would interfere with caregiving their parents. Meanwhile, Cantor (1983: 600) found that caregivers, who are children of the patients are worried that their capability might not be sufficient to take care of the patients. All the above reasons are factors causing the samples to have a rather high level of strain from worry.

Mutuality

The study found that the samples had a range of mutuality scores between 7 – 60 (mean = 34.67, S.D. = 11.32, skewness = -.284). It showed that the samples had a rather high level of positive relationship with the patients during caregiving. This result is consistent with the study of Songwattanayut, W. (2002), which found that caregivers had a high positive quality relationship with CVD patients. This is because the samples become caregivers with willingness, love and bonding with the patients. They also considered that they should express gratitude to their parents by taking care of them when they were ill or old, which was their responsibility. Therefore, they were glad to take care of their parents and had a positive attitude towards caregiving. All of these reasons made a positive relationship during caregiving. It was found that the samples loved the patients at a high level (mean = 3.68, S.D = 0.649) and felt are bonding to the patients (mean = 3.54, S.D = 0.689) (see appendix E), which is consistent with the study of Walker, et al. (1990:) which found that if daughters had a positive relationship during caregiving, they were more likely to find caregiving to be satisfying. This may be because the samples spent an average caregiving duration of 12.8 hours per day. Someone spent 24 hours in caregiving (see Table 2). This showed that both the patients and caregivers spent much more time doing activities together. Both of them had an opportunity to get to learn about each other, which made a better understanding of each other. The study also found that the samples shared the same opinion with the patients (mean = 3.27, S.D. = 0.928), and they enjoyed the time spent together (mean = 2.95, S.D. = 1.156). This is congruent with previous studies (Pohl, et al., 1995; Walker, et al., 1990: 149), which found daughters who spent the greater amount of time with their mother would have a positive impact from caregiving on their relationship. The samples of this study perceived a rather high mutuality.

Preparedness

The result showed that the samples had a range of preparedness scores between 3 – 32 (mean = 21.38, S.D. = 5.79, skewness = -.207). This shows that they had a rather high level of preparedness. This result is congruent with a previous study (Kophachon, C. 2002), which found that caregivers of patients with cerebrovascular disease had a high perception of how prepared he or she was for the task and for stress in the caregiving role. This may due to the fact that both two hospitals provided a good preparation for caregivers before discharging the patients to home. The preparation included giving instructions, information, and caregiving skills training to care for the patients; For instance, personal hygiene care, blenderized diet preparation, tube feeding, transfer and changing position, and rehabilitation. With this preparation, the caregivers learned to take care of the patients and were able to respond to patients' needs (Suwanno, J. 1997: 75). Besides, females usually had experiences of being cargivers as they are responsible for taking care of the family members and house chores so they tended to learn rapidly all tasks such as physical hygiene, cooking and feeding, including assistance with toileting (Mui, 1995: 403; Walker, 1995). Moreover, the average caregiving duration was 26.7 months, which implies that the patients had passed the critical period and were in the recovery period. The duration is long enough for the caregivers to develop their skills and capabilities to provide better caregiving (Phuangchan, S. 1993; Deeprasert, A. 2000: 48). The samples were therefore assessed to have preparedness in total at a high level (mean = 3.02, S.D. = 0.908) (see appendix E).

Rewards of Caregiving

The study shows that the samples had a range of rewards of caregiving scores between 54 – 131 (mean = 99.82, S.D. = 18.09, skewness = -.503). This implies that the caregivers had a positive attitude towards caregiving at a rather high level, which is consistent with previous study (Kophachon, C. 2002; Sangboon, K. 2002) who found that caregivers had a high positive feeling of caregiving that occured because he or she fullfilled the caregiving role. This was due to the sample's willingness to become a caregiver. The samples therefore considered the situation positively. The study shows that the samples perceived the rewards of caregiving in terms of meaning at the highest level (mean = 44.95, S.D. = 8.65) (see Table 4), expressed gratefulness (mean = 4.45, S.D. = 0.884) and gratification of the patients (mean = 4.31, S.D. = 1.123). This is in accordance with previous studies (Kophachon, C. 2002: 63; Sasat, S. 2000: 21; Songwatanayut, S. 2002: 59 ;Tuangsin, P. 2002: 78). Moreover, caregiving makes closeness (mean = 4.39, S.D. = 0.910), and admiration (mean = 4.14, S.D. = 1.192). Besides, as most of the samples are Buddhist (95.5 %) (Table 1), they therefore believe that caregiving is a good thing (mean = 3.61, S.D. = 1.447), and it makes good merit (mean = 3.32, S.D. 1.691). (see appendix E) All of the above made the samples perceive that caregiving is a good thing to do, or is rewards, which is congruent with the study of Walker, et al. (1990) that found that daughters who took care of their mothers perceived that caregiving is what they gain in return or as rewards.

Perceived Level of Patient Dependency

The result shows that the samples had a range of perceived level of patient dependency scores between 2-3 (mean=2.45, S.D.= 0.64, skewness=-.770) This implies that the samples had a rather high perceived level of patient dependency. This result is consistent with the previous studies (Kophachon,C.2002: 52; Songwattanayut, W. 2002: 50;). 86.4% of the patients were older than 60 years old and almost half (46.4%) had left hemiplegia whereas 42.7 % of them had right hemiplegia. These shows that the patients had limitations in taking care of themselves. In addition, the average time that the samples spent in caregiving per day was 12.8 hours. All of the above information made the samples perceived level of patient dependency at a rather high level.

Role strain

The study showed that the samples had a range of role strain scores between 3 – 112 (mean = 32.54, S.D. = 21.73, skewness = 1.038). This implies a low level of role strain. This result is consistent with the study of Kophachon, C. (2002), which found that caregivers had low strain .It may be because the samples had bonding and were willing to take care of the patients. And as children who should take care of their parents, they therefore had a positive attitude to caregiving without boredom and stress (Phungbanharn, 1996). Moreover, the average of caregiving duration of 26.7months is long enough for them to develop their caregiving capability, and to adapt themselves to the role. It is consistent with previous studies (Phuangchan, S. 1993; Somnarint, O. 1995), which found that the sufficient caregiving duration extends the caregiver caregiving capability. Also the samples were females, who are responsible for family members and house chores, so when becoming a caregiver, they were able to develop organization skills that facilitated the inclusion of caregiving tasks into the daily routine. (Schott-Bare, 1993: 235). This therefore reduced the role strain of caregivers.

In addition, more than half of the samples (52.7 %) were unemployed and single (56.4 %). They therefore were able to spend most of their time on caregiving effectively. Meanwhile, most of them (85.5 %) gained assistance, which implies that the caregiving responsibility was assisted. The samples had more time for themselves to participate in social activities and hold other roles. Therefore, they had less stress, which is congruent with the study of Huevel, et al. (2001), which found that caregivers who are able to manage their time to do other activities will have less stress. During caregiving the caregivers gain compliments (mean = 3.20. S.D. =1.284) (see appendix E) and visits from relatives, which are emotional support to relieve the role strain of the caregivers which is consistent with a previous study (Chaungsawasdisak, S.1998: 59).

Factors Influencing Role Strain

From the study, it was found that strain from worry had a positive relationship with caregiver role strain ($r = .447$, $p < .001$). And its predictability of role strain is 20 %. Therefore, it supports the research hypothesis. It shows that, the higher strain from worry, the more role strain. This result is consistent with the study of Spark, et al. (1998), which found that worry can be a predictor of daughters' mental health. This may be because being a caregiver is a new role added to the current ones. Along with love and bonding for the patients, the sampling group cannot leave this responsibility to other people, and they cannot proceed other roles completely. This leads to role conflict and increased stress. The study shows that worry has a positive correlation with role conflict and role strain ($r = .290$, $p < .01$: $r = .411$, $p < .01$ respectively).
(see appendix E) It is consistent with the study of McCathy's (1996: 799) which found that daughters who took care of Alzheimer's disease parents felt that they had lost their prior life styles, relatives and social relationships, including relationships in the family. Meanwhile, Orenker's (1990) study found that caregivers who have to take

time off or rearrange their working time to become a caregiver have increased role strain.

Preparedness had a negative relationship with caregiver role strain (r = -.295, p < .01) and its predictability to role strain was cumulative up to 30.3 % ($F_{(1,107)}$ = 15.733, p<.001). It thus supports the research hypothesis. This shows that the higher the preparedness, the less caregiver role strain. This result is consistent with previous studies (Archbold, et al. 1990: 375; Kophachon, C. 2002), which found that preparedness can relive caregiver role strain. It could be because of the outcome of the caregiving preparation, which brings confidence in caregiving for the patients, and capability to respond to the patients need. It is consistent with the study of Heuvel, et al (2001: 674) which found that caregivers who are confident in their caregiving capability will have less role strain. Moreover, preparedness enables the caregivers to plan the caregiving and take care of the patients appropriately (Tassanasetta, et al., 2001: 82). This causes no changes to daily routine. The caregivers can obtain current roles, including family affairs, the working women, have social activities, and have spare time for themselves to relax or to do private business. It was shown that preparedness had a negative correlation with role conflict and role strain equally (r = -.255, p < .01). (see appendix E).This is congruent with the study of Bull, et al. (2000), which found that caregivers who gain preparation before taking the patients into their own caregiving were also more accepting of the caregiving role. In addition, the study of Scherbring (2002) found that caregivers, who have a high level of preparedness, showed the level of burden was relieved. Therefore, preparedness had an influence on role strain.

The study shows that rewards of caregiving had a negative relationship with caregiver role strain (r = -.226, p < .01). This implies that the higher the rewards of caregiving, the less role strain. This is due to the fact that the samples became caregivers because of a sense of responsibility, love, and bonding with patients. Moreover, they gain compliments from neighbors. And they thought it was a good opportunity to gratify the patients, which enabled them to get close to the patients. Therefore, they were glad to take the responsibility. The positive feelings or rewards of caregiving made the samples feel that caregiving is not a burden, but a motivation to keep on caregiving for the patients. Role strain then reduces, in accordance with previous studies (Archbold, et al., 1990; Lee, et al., 2001: 52; Riedel, et al., 1998: 165; Schwarz & Robert, 2000; Tuangsin, 2002 ; Wongjunlongsin, S. 1999: 67). The result shows that rewards of caregiving have no predictability of caregiver role strain;however, this is in contrast to previous studies (Picot, 1995; Sangboon, K. 2002). This may be because rewards of caregiving have a correlation with preparedness (r = .634, p < .001).

It was found that mutuality had no relationship with caregiver role strain (r = -.071, p > .05). It shows that no matter how much mutuality there is, it does not affect caregiver role strain. This is because the samples are daughters of the patients, and the relationship with the patients had been good before they became a caregiver. During caregiving, the relationship gets even better. The caregiving, which is from love and bonding to the patients, makes the caregivers glad, not stressful and willing to take care of the patients. Therefore, mutuality had no correlation with caregiver role strain, which is in contrast to the study by Songwattanayut, W. (2002), which found that mutuality had a correlation to role strain (r = -.317, p < .05) and its predictability of role strain was5.2 %. And this is the same as the study of Archbold, et al.(1990), which found that mutuality relieves caregivers role strain. It may be because this research aimed to study a group of daughters, in which the samples had homogenous characteristics , so the perception of mutuality had no variation.

Family economic status had a negative relationship with role strain (r = -.197, p < .05). It shows that the higher the family economic status, the less role strain. This was due to the fact that wealthy caregivers are capable of finding helpful caregiving facilities, for instance, materials and equipment purchases, and health center provision. These all enable them to have an easier caregiving situation, and have decreased responsibility for the caregivers. The caregivers then feel more relaxed with the role (Archbold, et al., 1983: 41; Huevel, et al., 2001: 675). This is consistent with the study of Lee, et al. (2001), which found that the caregivers with higher family economic status assessed the caregiving to be less stressful than those with lower family economic status. In addition, wealthy family can afford the cost of living of caregivers and families, which enables the caregivers to take care of the patients effectively (Watson, 1992: 55). They do not have to be concerned with the family income, so they therefore feel less stressful (Bull, 1990; Somnarint, O. 1995: 63; Starrel, et al., 1997). In this study family economic status had no predictability on caregivers role strain. This result is in contrast to the study of Montgomory, et al., (1985), which found that family income can predict a subjective burden. Whereas, the study of Hughes, et al. (1999) found that low income can predict an objective burden. This is because most of the samples earned sufficient income, and more than half of the patients gained reimbursement from the government (see Table 2). It implies that family economic status makes no difference. Moreover, family economic status is correlated to preparedness ($r = .212$, $p < .05$).

The perceived level of patient dependency has no correlation to role strain of caregivers ($r = .061$, $p > .05$). It shows that no matter how high the level of patient dependency , there is no effect on the role strain of caregivers. This is due to the love and bonding of the caregivers towards the patients. Most of the samples are willing to become caregivers. They think that caregiving for their beloved ones is not a burden. Therefore, the level of dependency causes no effect on role strain, which is in accordance with previous studies (Hawkins, 1996; Mui, 1992), which found that the deficiency level of the patients had no relationship to role strain in daughters. The same result is found in the study of Blake & Lincoln (2002: 376) and Schott-bare (1993), which found that limitations or physical disability had no predictability on role strain. It is in contrast to the study of Kenchaiwong, F. (1996), which found that the level of patient dependency had a positive correlation to the caregiving burden. And it is related to the study of Kaewraya, K. (1997),who found that the capability to conduct daily routines of elderly people had a negative correlation to role strain. This is due to the fact that the previous studies were the studies of caregivers as a whole, whereas this research aims to study only the group of daughters. The perception level of patient dependency on role strain could be different. Moreover, The limitation of instrument had no sensitivity and objectivity. Therefore the level of patient dependency had no effect on role strain, which is contrary to the research hypothesis.

The findings of this study showed that strain from worry and preparedness had predictability on caregiver role strain up to 30.3 % with statistical significance at $p < .001$. On the other hand, other factors, such as, mutuality, rewards of caregivers, family economic status, and the perceived level of patient dependency had no predictability on role strain of caregiver daughters of patients with cerebrovascular disease. The latter findings then support some part of the research hypothesis.

CHAPTER VI
CONCLUSION

The aim of this research study was to study the role strain of caregiver daughters, who are daughters of patients with cerebrovascular disease. This study used Roy’s Adaptation Model as the conceptual framework. The samples of the study were 110 daughters of patients with cerebrovascular disease who lived in the same house with the patients, and had experienced of taking care of CVD patients for at least 3 weeks. In addition, the samples brought the patients to follow-up at neuromedical clinics of Out–Patient Departments at Prasart Neurological Institute, or King Chulalongkorn Memorial Hospital. 70 samples were interviewed, and 40 samples answered the questionnaires by themselves. All samples were interviewed while the patients followed-up at the hospital except two samples who were interviewed at home. The data were collected between January and May 2003. The instruments used were questionnaires of demographic data of the daughter caregivers and the patients with cerebrovascular disease, strain from worry questionnaire, mutuality questionnaire, preparedness questionnaire, rewards of caregiving questionnaire, and role strain questionnaire. The reliability of strain from worry questionnaire, mutuality questionnaire, preparedness questionnaire, rewards of caregiving questionnaire, role strain questionnaire, role strain in terms of role conflict, in terms of mismatched expectation, in terms of increasing stress, and global strain were (0.90, 0.89, 0.76, 0.93, 0.92, 0.88, 0.67, 0.87, 0.68 respectly). The result was analyzed by a computer program. The result was presented as frequency, percent, range, mean, standard deviation, Pearson’s Product Moment correlation coefficient, and stepwise multiple regression The result is as follows.

The samples were 18 – 64 years old (mean = 39, S.D. = 9.89). 86.4 % had more than 2 siblings. Nearly half of them (44.5%) were the last child. Almost all are Buddhist (95.5 %). More than half (56.4) % were single. The number of samples who completed elementaryeducation were the same number as samples who completed a bachelor’s degree (29.1 %). More than half of samples (52.7 %) were unemployed, and 27.3 % quit their jobs to take care of the patients. The largest group of them (36.4 %) earned between less than 5,000 and up to 10,000 baht per month (mean = 22,027.77, S.D. = 24,860.23). In terns of caregivers’ experience, the samples had a duration of caregiving from 1 to 12 months with an average duration of 26.7 months (S.D. = 32.21).The average time that they spent in caregiving per day was 12.8 hours (S.D. = 6.90); 30 % of them spent time in caregiving per day between 9 and 12 hours. Most of them (87.3 %) had no experience in patient caregiving before, whereas 77.3 % had received information and skills training to care for patients with cerebrovascular disease. Most of the samples (85.5 %) had assistants, and more than half of them (55.5 %) were their siblings. In addition, 35.5% expressed that they had health problems before taking caregiving role, but 49.1 % had health problems during taking a caregiving role. The reason for becoming caregivers are the duty or responsibility, and love or bonding (79.1 %% and 77.3 % respectively). Some of them (26.4 %) had other person to care for as well as the CVD patient and 53.6 % of them perceived the level of patient dependency at a high level.

Most of the patients with cerebrovascular disease (70.9 %) were female and were over 60 years old (mean = 69.88, S.D. = 8.90). The marital status was found to be almost equal for both married (46.4 %) and divorced (45.5 %). Most of them (95.5 %) are Buddhist. Almost all of them (82.7 %) were diagnosed with ischemic stroke and left hemiplegia (46.4 %). 90.9 % had co-morbidility. Hypertension was the most commonly found (36.4 %). 35.5 % had complications.43.6 % had memory deficit, and 54.6 % had dysarthria. And more than half (60 %) had slow cognition and decision making. 53.6 % of the patients can be reimbursed from the government for medical costs.

The samples had strain from worry (mean = 42.60, S.D. = 10.91, skewness = -.241), mutuality (mean = 34.67, S.D. = 11.32, skewness = -.284), preparedness (mean = 21.38, S.D. = 5.79, skewness = -.270), rewards of caregiving (mean = 99.82, S.D. = 18.09, skewness = -.503) and perceived level of patient dependency (mean = 2.45, S.D. = 0.64, skewness = -.770) scores at a rather high level whereas caregiver role strain was at a low level (mean = 32.54, S.D. = 21.73, skewness = 1.038). The study result shows that strain from worry had a positive correlation with role strain with statistical significantce (r = .447, P < .001), and predictability on role strain was 20.0 %. Preparedness had a negative correlation with caregiver role strain (r = -.295, p < .01), and it increased predictability on caregiver role strain up to 30.3 %. Meanwhile, rewards of caregiving and family economic status also had a negative correlation with role strain with statistical significance (r = -.226, p < .01, r = -.197, p < .05). However, they had no predictability on role strain. The perceived level of dependency had no correlation to role strain with no statistical significance (r = .061, p > .05). The findings of the study supported some part of the research hypothesis.

Recommendation

Implication for Nursing Practice

The result of the study showed that strain from worry, preparedness, rewards of caregiving, and family economic status were related to role strain of caregiver daughters. Strain from worry and preparedness could explain role strain of caregiver daughters. Therefore, nurses should evaluate all factors influencing the daughter caregiver role strain in order to plan an effective nursing care program for caregivers to help them adapt to their caregiving role. For example;

a) 24 hours telephone line.This program will assist the caregiver daughters via the telephone line . The daughter caregiver can call 24 hours to ask about the problems of caring for CVD patients

b) The preparedness program for caregiver daughters. This program provides information about disease, and medical treatment for caregiver daughters. In addition, it provides the training skill of caring, such as personal hygiene care, food feeding, and rehabilitation.

The study result also showed that daughter caregivers had health problems before and during taking the caregiving role. Therefore, the caregiver daughters should receive health information about rest, relaxing activities, stress management and check-up their health regularly. Moreover, nurses can establish self help groups, to enable the daughter caregivers to exchange ideas, opinions, experiences, and get troubleshooting instructions.

The referal system for the CVD patients. The nurse and other professionals can present their information clearly to assist the patients and their caregivers to use these facilities efficiently such as home health care or health care centers.

Implication for Nursing Education

The nursing curriculum should contain the concept of caregivers, relating to chronic disease patients' caregiving. The content should mention the role and responsibility of the caregiver, the factors influencing role strain, including nursing procedure, to relieve strain and promote the role of daughter caregivers.

Implication for Further Studies

1. Further studies should be done in a group of family economic status variation, and a different level of patient dependency.

2. There should be studies of groups of caregiver daughters had low family economic status because the result of the study found that theses group had risk cause caregiver role strain.

3. There should be studies of groups of caregiver daughters of other chronic disease patients, such as Alzheimer disease, cancer, AIDS, or elderly people, to compare them with the findings of this study.

4. Other factors, which can affect role strain of caregiver daughters, should be taken into account, for instance, sense of coherence, self-esteem, and family cohesiveness.

5. Further studies level of patient dependency should be used the instrument , which to assessed the patients' ability to do activities , so that the instrument had more a sensitivity and objective data.

6. The findings of the study should be used to develop and create a program assisting adapt of caregiver daughters role.

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APPENDIX A

Information Consent Form

Information Consent Form

แบบฟอร์มการยินยอมและพิทักษ์สิทธิ์ผู้เข้าร่วมการวิจัย

ดิฉัน นางสาวอารีย์ แสงรัศมี นักศึกษาพยาบาลปริญญาโท คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล กำลังทำวิทยานิพนธ์เกี่ยวกับปัจจัยที่มีอิทธิพลต่อความเครียดในบทบาทญาติผู้ดูแลที่เป็นบุตรสาวผู้ป่วยโรคหลอดเลือดสมอง ท่านเป็นบุคคลสำคัญในการเก็บข้อมูลครั้งนี้ จึงขอความร่วมมือในการตอบแบบสอบถาม ถ้าหากท่านยินยอมในการให้ข้อมูล ดิฉันขอรบกวนท่านในการตอบแบบสอบถามเกี่ยวกับข้อมูลส่วนตัวและข้อมูลเกี่ยวกับสัมพันธภาพระหว่างท่านกับผู้ป่วย ความรู้สึกที่ดีจากการให้การดูแล ความพร้อมในการดูแล ความวิตกกังวลและความเครียดที่เกิดขึ้นจากการดูแล โดยใช้เวลาประมาณ 40 นาที

ในการตอบแบบสอบถามครั้งนี้ไม่มีถูกหรือผิด ขอให้ท่านตอบตรงความรู้สึกของท่านมากที่สุด ข้อมูลที่ได้จะเป็นประโยชน์ต่อการวางแผนการพยาบาลในการช่วยเหลือญาติผู้ดูแลผู้ป่วยโรคหลอดเลือดสมองที่เป็นบุตรสาวต่อไป ไม่ว่าท่านจะเข้าร่วมการวิจัยหรือไม่ก็ตามจะไม่มีผลกระทบใดๆ ต่อท่านหรือการดูแลที่ผู้ป่วยได้รับแต่อย่างใด หากท่านยินดีเข้าร่วมการวิจัยแล้วเกิดเปลี่ยนใจภายหลัง ท่านมีสิทธิ์จะถอนตัวได้โดยไม่มีข้อแม้ใดๆ ข้อมูลที่ได้จากท่านทั้งหมดจะเป็นความลับและนำเสนอผลการวิจัยของญาติดูแลที่เป็นบุตรสาวผู้ป่วยโรคหลอดเลือดสมองโดยรวม

นางสาวอารีย์ แสงรัศมี
ผู้วิจัย

………

สำหรับผู้เข้าร่วมวิจัย

ข้าพเจ้าได้รับทราบรายละเอียดของการวิจัย ดังที่อธิบายไว้ข้างต้นแล้วมีความเข้าใจ และมีความยินดีให้เข้าร่วมมือในการวิจัยครั้งนี้

ลงชื่อ………………………………
วันที่ ….เดือน………..พ.ศ. 2546

APPENDIX B

Permission Letters for Data Collection

Permission Letters For Data Collecting

คำรับรองและอนุมัติให้ใช้สถานที่/หน่วยงานที่ดำเนินการวิจัย

ข้าพเจ้า แพทย์หญิงอภิรมย์ เวชภูติ ตำแหน่ง ผู้อำนวยการสถาบันประสาทวิทยา อนุมัติให้ นางสาวอารีย์ แสงรัศมี ดำเนินโครงการวิจัย เรื่อง ปัจจัยที่มีอิทธิพลต่อความเครียดในบทบาทผู้ดูแลที่เป็นบุตรสาวผู้ป่วยโรคหลอดเลือดสมอง ในสถาบันประสาทวิทยา ได้ตั้งแต่วันที่ 27 กุมภาพันธ์ 2546 จนสิ้นสุดโครงการ

(แพทย์หญิงอภิรมย์ เวชภูติ)
ผู้อำนวยการสถาบันประสาทวิทยา

ที่ จพ.ล. ๒๔๒๖ /2546

โรงพยาบาลจุฬาลงกรณ์
1873 ถนนพระรามที่ 4
แขวงปทุมวัน เขตปทุมวัน
กรุงเทพฯ 10330

๑๘ มีนาคม 2546

เรื่อง ยินดีให้เก็บข้อมูลเพื่อประกอบการทำวิทยานิพนธ์
เรียน ประธานคณะกรรมการบริหารหลักสูตรพยาบาลศาสตรมหาบัณฑิต
อ้างถึง หนังสือที่ พย.ม. 1279/2545 ลงวันที่ 9 ธันวาคม 2545

ตามหนังสือที่อ้างถึง คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล แจ้งความประสงค์ขอความอนุเคราะห์ให้ **นางสาวอารีย์ แสงรัศมี** นักศึกษาหลักสูตรพยาบาลศาสตรมหาบัณฑิต สาขาการพยาบาลผู้ใหญ่ เข้าเก็บข้อมูลจากญาติผู้ดูแลในกลุ่มบุตรสาวที่พาผู้ป่วยมารับบริการที่คลินิกอายุรกรรมประสาท แผนกผู้ป่วยนอก ตั้งแต่เดือนมกราคม 2546 เป็นต้นไปจนกว่าจะได้ข้อมูลครบ 47 ราย นั้น

โรงพยาบาลจุฬาลงกรณ์พิจารณาแล้ว ไม่ขัดข้อง ยินดีให้ดำเนินการตามที่แจ้ง กรุณาติดต่อขอพบหัวหน้าพยาบาล ตึกจักรพงษ์ชั้น 2 ในวันที่เก็บข้อมูล อนึ่ง ก่อนพบบุคคลดังกล่าว ขอให้นักศึกษานำบัตรนักศึกษาหรือบัตรประจำตัวประชาชนพร้อมจดหมายฉบับนี้มาติดต่อรับบัตรประจำตัวผู้เก็บข้อมูล ณ ตึกอำนวยการ ชั้นล่าง ห้องหมายเลข 4

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(รองศาสตราจารย์นายแพทย์คเณศร์ แววจิตร)
รองผู้อำนวยการฯฝ่ายวิชาการ
ปฏิบัติการแทน ผู้อำนวยการโรงพยาบาลจุฬาลงกรณ์

ฝ่ายการพยาบาล โทรศัพท์ 0-2256-4360 ฝ่ายอายุรศาสตร์ โทรศัพท์ 0-2256-4246
ฝ่ายผู้ป่วยนอก โทรศัพท์ 0-2256-5003 ฝ่ายเลขานุการ โทรศัพท์ 0-2652-4600-29
ต่อ 3291 โทรสาร 0-2256-4368

APPENDIX C

Data Collection Instruments

Data Collection Instruments

ส่วนที่ 1 แบบบันทึกข้อมูลส่วนบุคคลทั่วไป

ข้อมูลส่วนบุคคลของญาติผู้ดูแล

คำชี้แจง โปรดทำเครื่องหมาย ✓ ลงในช่อง☐ หรือเติมคำลงในช่องว่าง

1. อายุ .... ปี
2. ท่านมีพี่น้องจำนวน .... คน เป็นบุตรคนที่ .... เป็นบุตรสาวคนที่ ....
3. สถานภาพสมรส
   - ☐ โสด ☐ หย่า
   - ☐ คู่ ☐ แยกกันอยู่
   - ☐ ม่าย
4. ศาสนา
   - ☐ พุทธ ☐ อิสลาม
   - ☐ คริสต์ ☐ อื่นๆ ระบุ..........
5. ระดับการศึกษา
   - ☐ ไม่ได้เรียนหนังสือ ☐ อนุปริญญาหรือประกาศนียบัตร
   - ☐ ประถมศึกษา ☐ ปริญญาตรี
   - ☐ มัธยม ☐ สูงกว่าปริญญาตรี
6. ขณะนี้ท่านทำงานหรือไม่
   - ☐ ทำงาน ระบุ...............
     - ☐ ทำเป็นบางวัน ☐ ทำเป็นประจำ
   - ☐ ไม่ได้ทำงานเนื่องจาก................
     - ☐ ว่างงาน ☐ กำลังหางานทำ ☐ อื่นๆ ระบุ...........
     - ☐ เกษียณ ☐ หยุดทำงานเพราะต้องดูแลผู้ป่วย
7. รายได้ของครอบครัว................บาทต่อเดือน
8. ความเพียงพอของรายได้
   - ☐ ไม่เพียงพอ และมีหนี้สิน
   - ☐ เพียงพอต่อเดือนไม่เหลือเก็บ
   - ☐ เพียงพอและมีเหลือเก็บ

9. ปัญหาสุขภาพของญาติผู้ดูแล

ปัญหาสุขภาพเดิม

☐ ไม่มี ☐ มี ระบุ............

ปัญหาสุขภาพที่เกิดจากการดูแล

☐ ไม่มี ☐ มี ระบุ................

10. ระยะเวลาในการดูแลผู้ป่วย..........ปี.........เดือน......... สัปดาห์

11. ระยะเวลาที่ใช้ดูแลต่อวัน............ชั่งโมง

12. ประสบการณ์การดูแล

☐ ไม่มี ☐ มี ระบุ..................

13. ผู้ช่วยเหลือในการดูแลที่บ้าน

☐ ไม่มี ☐ มี ระบุ..................

14. เหตุผลในการเข้ารับหน้าที่ดูแลผู้ป่วย (ตอบได้มากกว่า 1 ข้อ)

☐ หน้าที่/ความรับผิดชอบ

☐ ความรัก/ความผูกพัน

☐ ไม่มีใคร

☐ อื่นๆ

15. ท่านมีผู้อื่นที่จะต้องดูแลอีกหรือไม่นอกจากผู้ป่วย

☐ ไม่มี ☐ มี ระบุ................

16. ท่านเคยได้รับความรู้เกี่ยวกับการดูแลผู้ป่วยโรคหลอดเลือดสมองที่บ้านหรือไม่

☐ ไม่เคย ☐ เคย ระบุ................

ข้อมูลส่วนบุคคลของผู้ป่วย

คำชี้แจง โปรดทำเครื่องหมาย ✓ ลงในช่อง☐ หรือเติมคำลงในช่องว่าง

1. เพศ

☐ ชาย ☐ หญิง

2. อายุ......... ปี

3. สถานภาพสมรส

☐ คู่ ☐ หย่า

☐ ม่าย ☐ แยกกันอยู่

4. ศาสนา

☐ พุทธ ☐ อิสลาม

☐ คริสต์ ☐ อื่นๆ

5. การวินิจฉัยโรค.....................................

6. ความพิการที่ปรากฏ

☐ อ่อนแรงครึ่งซีกซ้าย หรืออัมพาตครึ่งซีกซ้าย

☐ อ่อนแรงครึ่งซีกขวา หรืออัมพาตครึ่งซีกขวา

☐ อ่อนแรงท่อนล่าง หรืออัมพาตท่อนล่าง

☐ อ่อนแรงหรืออัมพาตทั้งหมด

7. โรคที่พบร่วมกับโรคหลอดเลือดสมอง (ตอบได้มากกว่า 1 ข้อ)

☐ ไม่มี

☐ ความดันโลหิตสูง

☐ ไขมันในเลือดสูง

☐ เบาหวาน

☐ โรคหัวใจ

☐ อื่นๆ ระบุ.....................

8. ระดับการพึ่งพาของผู้ป่วย

☐ น้อย

☐ ปานกลาง

☐ มาก

9. ความสามารถในการคิดและสื่อสาร

ความจำ

- ☐ ดี
- ☐ เสื่อม
- ☐ จำไม่ได้เลย

การพูด

- ☐ ปกติ
- ☐ ลำบาก
- ☐ ไม่ได้เลย

การคิดและตัดสินใจ

- ☐ ปกติ
- ☐ ช้าลง
- ☐ ไม่ได้เลย

10. ค่าใช้จ่ายในการรักษา

- ☐ จ่ายเอง
- ☐ เบิกจากต้นสังกัด
- ☐ โครงการ 30 บาท
- ☐ อื่นๆ ระบุ........................

11. ภาวะแทรกซ้อนที่พบระหว่างการเจ็บป่วย (ตอบได้มากกว่า 1 ข้อ)

- ☐ ไม่มี
- ☐ แผลกดทับ
- ☐ ปอดบวม
- ☐ ข้อยึดติด
- ☐ ติดเชื้อในระบบทางเดินปัสสาวะ
- ☐ อื่นๆ ระบุ........................

Strain from Worry Questionnaire

แบบวัดความวิตกกังวล

ข้อคำถามแต่ละข้อในแบบวัดชุดนี้ ถามความวิตกกังวลในการดูแล ที่เกี่ยวกับผู้ป่วย และญาติผู้ดูแล รวมถึงสถานการณ์การดูแล ขอให้ท่านอ่านข้อคำถามในแต่ละข้อ โปรดทำเครื่องหมาย ✓ ลงในช่อง ☐ ที่ตรงกับระดับความวิตกกังวลของท่าน

ข้อความ	ไม่เลย	เล็กน้อย	มีบ้าง	ค่อนข้างมาก	มาก
1. ท่านกังวลเกี่ยวกับสุขภาพของผู้ป่วย 2. ท่านกังวลเกี่ยวกับสภาพอารมณ์ของผู้ป่วย 3. ท่านกังวลเกี่ยวกับเงินที่ใช้ในการรักษาผู้ป่วย 4. ท่านกังวลว่าท่านจะสามารถดูแลผู้ป่วยไปได้อีกนานเท่าไร เนื่องจากสุขภาพของท่านไม่ดี 5. ท่านกังวลเกี่ยวกับความปลอดภัยของผู้ป่วย เช่น การใช้เครื่องใช้ไฟฟ้า ……………………………... …………………………….. ……………………………... …………………………….. 15. ท่านกังวลว่าความพิการของผู้ป่วยจะเป็นอย่างถาวร					

Mutuality Questionnaire

แบบวัดความสัมพันธ์ต่างเกื้อกูล

ข้อคำถามในแต่ละข้อของแบบวัดชุดนี้ ถามความรู้สึกของท่านที่มีต่อผู้ป่วย ในระหว่างที่ท่านให้การดูแลผู้ป่วย ขอให้ท่านอ่านข้อคำถามในแต่ละข้อ และทำเครื่องหมาย ✓ ลงในช่อง☐ ที่ตรงกับความรู้สึกของท่านมากที่สุด

ความรู้สึกของท่านต่อผู้ป่วยในเรื่องต่อไปนี้	**ไม่เลย**	**เล็กน้อย**	**ค่อนข้างมาก**	**มาก**	**มากที่สุด**
1. ท่านและผู้ป่วยมีความเห็นตรงกันในเรื่องต่างๆ มากเพียงใด					
2. ท่านมีความใกล้ชิดสนิทสนมกับผู้ป่วยมากเพียงใด					
3. ท่านมีความสุขที่ได้ร่วมพูดคุยรื้อฟื้นถึงความหลังกับผู้ป่วยหรือเล่าเหตุการณ์ความหลังต่างๆ ให้ผู้ป่วยฟังมากเพียงใด					
4. ผู้ป่วยแสดงออกถึงความรู้สึกซาบซึ้งในตัวท่านและสิ่งที่ท่านปรนนิบัติต่อผู้ป่วยมากเพียงใด					
5. ท่านรู้สึกผูกพันกับผู้ป่วยมากเพียงใด					
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15. ผู้ป่วยแสดงออกถึงความเอื้ออาทรต่อตัวท่านมากเพียงใด					

Preparedness Questionnaire

แบบวัดความพร้อมในการดูแล

ข้อคำถามแต่ละข้อในแบบวัดชุดนี้ ถามความพร้อมของท่านในการดูแลผู้ป่วยโรคหลอดเลือดสมอง ข้อให้ท่านอ่านข้อคำถามแต่ละข้อและทำเครื่องหมาย ✓ ลงในช่อง ☐ ที่ตรงกับความรู้สึกของท่านมากที่สุด

คำถาม	ไม่มีเลย	เล็กน้อย	ปานกลาง	มาก	มากที่สุด
1. ท่านคิดว่าท่านมีความพร้อมในการดูแลความต้องการทางด้านร่างกายของผู้ป่วยมากเพียงใด					
2. ท่านคิดว่าท่านมีความพร้อมในการดูแลความต้องการด้าน อารมณ์ของผู้ป่วยมากเพียงใด					
3. ท่านคิดว่าท่านมีความพร้อมที่จะหาข้อมูลเกี่ยวกับบริการและจัดหาบริการให้การดูแลให้กับผู้ป่วยมากเพียงใด					
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8. โดยรวม ท่านคิดว่าท่านมีความพร้อมในการดูแลผู้ป่วยมากเพียงใด					

Rewards of Caregiving Questionnaire

แบบวัดรางวัลที่ได้รับจากการดูแล

ข้อคำถามแต่ละข้อในแบบสอบถามชุดนี้ ถามความรู้สึกดีที่เกิดขึ้นหรือรางวัลที่ได้รับจากการดูแลในระหว่างที่ท่านให้การดูแลผู้ป่วยโรคหลอดเลือดสมอง ขอให้ท่านอ่านข้อคำถามแต่ละข้อและทำเครื่องหมาย ✓ ลงในช่อง ☐ ที่ตรงกับประสบการณ์หรือความรู้สึกที่เกิดขึ้นกับตัวท่านมากที่สุด

คำถาม	**ไม่เลย**	**เล็กน้อย**	**ค่อนข้างมาก**	**มาก**	**มากที่สุด**
1. การดูแลผู้ป่วยช่วยให้ท่านรู้สึกว่าท่านได้ทำความดีมากเพียงใด					
2 การดูแลผู้ป่วยช่วยให้ท่านเข้าใจตัวท่านเองเมื่อต้องเจ็บป่วยมากเพียงใด					
3. การดูแลผู้ป่วยช่วยให้ท่านรู้สึกว่าท่านได้สร้างบุญกุศลผลบุญมากเพียงใด					
4. การดูแลผู้ป่วยช่วยให้ท่านรู้สึกว่าท่านได้ทำในสิ่งที่มีความสำคัญมากเพียงใด					
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27. การดูแลผู้ป่วยทำให้ท่านภูมิใจคนในครอบครัวมากขึ้นเพียงใด					

Role Strain Questionnaire

แบบวัดความเครียดในบทบาทญาติผู้ดูแล

แบบสอบถามชุดนี้เป็นแบบสอบถามความเครียดในบทบาทญาติผู้ดูแล ประกอบด้วยแบบสอบถามทั้งหมด 4 ชุด ได้แก่ แบบสอบถามความขัดแย้งในบทบาท แบบสอบถามการแสดงบทบาทไม่ตรงความคาดหวัง แบบสอบถามความตึงเครียดเพิ่มขึ้น และแบบสอบถามความเครียดในบทบาทโดยรวม

แบบความขัดแย้งในบทบาท

ข้อคำถามในแต่ละข้อในแบบวัดชุดนี้ ถามถึงการดูแลผู้ป่วยโรคหลอดเลือดสมองเป็นอุปสรรคต่อการกระทำบทบาทอื่นของท่านหรือไม่ ขอให้ท่านอ่านข้อคำถามแต่ละข้อและทำเครื่องหมาย ✓ ลงในช่อง ☐ ที่ตรงกับระดับความรู้สึกของท่านมากที่สุด

การดูแลผู้ป่วยเป็นอุปสรรคต่อท่านในการ..............................	**ไม่เลย**	**เล็กน้อย**	**ค่อนข้างมาก**	**มาก**	**มากที่สุด**	**ไม่มีบทบาทนี้**
1. ทำหน้าที่ภรรยาที่ท่านคิดว่าควรจะเป็นมากเพียงใด						
2. ทำหน้าที่แม่ที่ท่านคิดว่าควรจะเป็นมากเพียงใด						
3. ทำหน้าที่ลูกสาวที่ท่านคิดว่าควรจะเป็นมากเพียงใด						
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14. ความรับผิดชอบอื่นๆ ที่ท่านมีอยู่มีผลรบกวนการดูแลผู้ป่วยให้เป็นไปตามที่ท่านคิดว่าควรจะเป็นมากเพียงใด						

แบบวัดการแสดงบทบาทไม่ตรงตามความคาดหวัง

ข้อคำถามแต่ละข้อในแบบวัดชุดนี้ ถามความรู้สึกของท่านที่มีต่อการช่วยเหลือผู้ป่วยโรคหลอดเลือดสมอง ขอให้ท่านอ่านข้อคำถามแต่ละข้อและทำเครื่องหมาย ✓ ลงในช่อง ☐ ที่ตรงกับความรู้สึกของท่านมากที่สุด และเขียนคำตอบในข้อที่ต้องการรายละเอียดเพิ่มเติม

1. มีความช่วยเหลือใดบ้างที่ท่านคิดว่าท่านควรให้กับผู้ป่วยแต่ท่านไม่สามารถให้ความช่วยเหลือได้

☐ มี

☐ ไม่มี..........................ไปตอบข้อ 2

☐ ไม่แน่ใจ.....................ไปตอบข้อ 2

1.ก.ถ้ามี กรุณาบอกว่าสิ่งนั้นคืออะไร..............................

1.ข.ถ้ามี สิ่งนั้นรบกวนจิตใจท่านมากเพียงใด

☐ ไม่เลย ☐ เล็กน้อย ☐ ค่อนข้างมาก ☐ มาก ☐ มากที่สุด

2. มีสิ่งใดบ้างที่ท่านทำเพื่อผู้ป่วยแต่หลังจากที่ทำแล้วท่านคิดว่าท่านไม่น่าจะทำสิ่งนั้น

☐ มี

☐ ไม่มี..........................ไปตอบข้อ 3

☐ ไม่แน่ใจ.....................ไปตอบข้อ 3

2.ก.ถ้ามี กรุณาบอกว่าสิ่งนั้นคืออะไร...........................

2.ข.ถ้ามี สิ่งนั้นรบกวนจิตใจท่านมากเพียงใด

☐ ไม่เลย ☐ เล็กน้อย ☐ ค่อนข้างมาก ☐ มาก ☐ มากที่สุด

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7. ภาวะสุขภาพ และความต้องการการช่วยเหลือของผู้ป่วยทำให้ครอบครัวท่านมีความขัดแย้งเกิดขึ้นหรือไม่

☐ ไม่มีความขัดแย้ง

☐ มีความขัดแย้งเล็กน้อย

☐ มีความขัดแย้งค่อนข้างมาก

☐ มีความขัดแย้งมาก

☐ มีความขัดแย้งมากที่สุด

แบบวัดความตึงเครียดเพิ่มขึ้น

ข้อคำถามแต่ละข้อในแบบวัดชุดนี้ ถามว่าการดูแลผู้ป่วยโรคหลอดเลือดสมองมีผลกระทบในทางลบต่อชีวิตของท่านหรือไม่ ถ้ามี มีอยู่ในระดับใด ขอให้ท่านอ่านข้อคำถามแต่ละข้อและทำ ✓ ลงในช่อง ☐ ที่ตรงกับระดับความรู้สึกของท่านมากที่สุด

ข้อความ	ไม่เลย	เล็กน้อย	ค่อนข้างมาก	มาก	มากที่สุด
1. ทำให้ท่านมีเวลาให้กับตัวเองน้อยลง					
2. เพิ่มความตึงเครียดในความสัมพันธ์ระหว่างท่านและผู้ป่วย					
3. ทำให้ผู้ความเป็นส่วนตัวของท่านลดน้อยลง					
4. ผู้ป่วยพยายามเรียกร้องให้ท่านทำในสิ่งที่ท่านไม่อยากทำ					
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14. ทำให้เวลาในการพบปะเพื่อนฝูงและญาติพี่น้องลดน้อยลง					

แบบวัดความเครียดในบทบาทโดยรวม

ข้อคำถามแต่ละข้อในแบบวัดชุดนี้ ถามเกี่ยวกับประสบการณ์โดยทั่วไปของท่านในการดูแลผู้ป่วยโรคหลอดเลือดสมอง ขอให้ท่านอ่านข้อคำถามแต่ละข้อและทำเครื่องหมาย ✓ ลงในช่อง ☐ ที่ตรงกับความรู้สึกของท่านมากที่สุด

1. จากการพูดคุยกับผู้ดูแลบางคนทำให้ทราบว่าผู้ดูแลบางคนรู้สึกว่าการดูแลผู้ป่วยโรคหลอดเลือดสมองทำให้ขาดอิสระ ในขณะที่บางคนไม่รู้สึกเช่นนั้น สำหรับตัวท่าน ท่านรู้สึกว่าการดูแลผู้ป่วยทำให้ท่านขาดอิสระมากเพียงใด

   ☐ ไม่รู้สึกว่าขาดอิสระเลย
   ☐ รู้สึกว่าขาดอิสระบ้างเล็กน้อย
   ☐ รู้สึกว่าขาดอิสระค่อนข้างมาก
   ☐ รู้สึกว่าขาดอิสระมาก
   ☐ รู้สึกว่าขาดอิสระมากที่สุด

2. บ่อยครั้งเพียงใดที่ท่านรู้สึกว่าการดูแลผู้ป่วยมีความยากลำบาก

   ☐ ไม่เคยเลย
   ☐ นานๆ ครั้ง
   ☐ บางครั้ง
   ☐ บ่อยครั้งมาก
   ☐ เป็นประจำ

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7. ถ้าผู้ป่วยมีความต้องการการดูแลเพิ่มมากขึ้น ท่านมีความมั่นใจเพียงใดที่จะให้การดูแผู้ป่วยมากกว่าที่ท่านทำอยู่ในขณะนี้

   ☐ ไม่มั่นใจเลย
   ☐ มั่นใจเล็กน้อย
   ☐ มั่นใจค่อนข้างมาก
   ☐ มั่นใจมาก
   ☐ มั่นใจมากที่สุด

APPENDIX D

Reliability of Instruments

Reliability of Instruments

ค่าความเชื่อมั่นเครื่องมือในต่างประเทศ (Stewart & Archbold, 1991, 1993)

เครื่องมือ	**ค่าสัมประสิทธิ์แอลฟา**
แบบวัดความวิตกกังวล	0.89-0.96
แบบวัดความสัมพันธ์ต่างเกื้อกูล	0.61-0.95
แบบวัดความพร้อมในการดูแล	0.86-0.92
แบบวัดรางวัลที่ได้รับจากการดูแล	0.67-0.92
แบบวัดความเครียดในบทบาทญาติผู้ดูแล	
ความขัดแย้งในบทบาท	0.70
การแสดงบทบาทไม่ตรงตามความคาดหวัง	0.67
ความตึงเครียดเพิ่มขึ้น	0.82-0.93
ความเครียดโดยรวม	0.72-0.84

ค่าความเชื่อมั่นของเครื่องมือในญาติผู้ดูแลผู้ป่วยโรคหลอดเลือดสมองในประเทศไทย

เครื่องมือ	ผู้วิจัย	ค่าสัมประสิทธิ์แอลฟา
แบบวัดความวิตกกังวล	เกวลิน แสงบุญ (2002)	0.93
	เสาวลักษณ์ เนตรชัง (2002)	0.72
แบบวัดความสัมพันธ์ต่างเกื้อกูล	วัลภา ส่งวัฒนายุทธ (2002)	0.85
แบบวัดความพร้อมในการดูแล	จุรีรัตน์ ก่อผจญ (2002)	0.86
แบบวัดรางวัลที่ได้รับจากการดูแล	เกวลิน แสงบุญ (2002)	0.93
	จุรีรัตน์ ก่อผจญ (2002)	0.87
แบบวัดความเครียดในบทบาทญาติผู้ดูแล		
ความขัดแย้งในบทบาท	จุรีรัตน์ ก่อผจญ (2002)	0.71-0.84
การแสดงบทบาทไม่ตรงตามความคาดหวัง	เสาวลักษณ์ เนตรชัง (2002) บุญญารัตน์ เพิกเดช (2002)	0.50-0.58
ความตึงเครียดเพิ่มขึ้น		0.54-0.93
ความเครียดโดยรวม		0.60-0.81

APPENDIX E

More Results

More Results

สรุปผลการวิจัย เรียงลำดับตามความมากน้อยของค่าเฉลี่ยทั้งรายด้านและรายข้อ

1.ความวิตกกังวล (ระดับคะแนน 1-5 คะแนน)

ข้อ	ข้อความ	Mean	S.D.
6	กังวลว่าจะทำอย่างไรถ้าหากผู้ป่วยมีอาการเลวลง	3.90*	1.388
1	กังวลเกี่ยวกับสุขภาพของผู้ป่วย	3.82	1.235
7	จำเป็นต้องออกไปทำธุระข้างนอกบ้าน กังวลที่ ต้องทิ้งผู้ป่วยไว้คนเดียวหรือฝากไว้กับผู้อื่น	3.28	1.563
13	กังวลว่าโรคของผู้ป่วยจะเลวลง	3.23	1.512
15	กังวลว่าความพิการของผู้ป่วยจะเป็นถาวร	3.13	1.676
5	กังวลเกี่ยวกับความปลอดภัยของผู้ป่วย	3.08	1.580
9	กังวลว่าใครจะดูแลผู้ป่วยถ้าตนเองเป็นอะไรไป	2.93	1.652
2	กังวลเกี่ยวกับสภาพอารมณ์ของผู้ป่วย	2.89	1.498
10	กังวลเกี่ยวกับการตัดสินใจที่จะเอาผู้ป่วยไปอยู่ที่อื่นดีหรือไม่	2.89	1.794
8	กังวลเกี่ยวกับอนาคตของตัวเอง	2.81	1.628
3	กังวลเกี่ยวกับการเงินที่จะใช้ในการรักษาผู้ป่วย	2.35	1.443
14	กังวลว่าผู้ป่วยไม่เหมือนคนเดิมที่เคยรู้จัก	2.31	1.470
4	กังวลว่าจะสามารถดูแลผู้ป่วยไปได้อีกนานเท่าไร เนื่องจากสุขภาพไม่ดี	2.24	1.550
11	กังวลว่าคำแนะนำหรือการดูแลผู้ป่วยที่ได้รับจากแพทย์หรือพยาบาลจะไม่เพียงพอ	2.05	1.371
12	กังวลว่าการที่ท่านดูแลผู้ป่วยทำให้ท่านไม่มีเวลาหรือละเลยการดูแลสมาชิกอื่นในครอบครัว	1.72**	1.182

* ค่าเฉลี่ยสูงสุด ** ค่าเฉลี่ยต่ำสุด

2. ความสัมพันธ์ต่างเกื้อกูล (ระดับคะแนน 0-4 คะแนน)

ข้อ	ความรู้สึกของท่านต่อผู้ป่วยในเรื่องต่อไปนี้	Mean	S.D.
8	มีความรักในตัวผู้ป่วย	3.68*	0.649
5.	รู้สึกผูกพันกับผู้ป่วย	3.54	0.686
1	มีความเห็นตรงกันในเรื่องๆ	3.27	0.928
14	มีความสุขที่มีเวลาอยู่ด้วยกันกับผู้ป่วย	2.95	1.156
11	พูดคุยกับผู้ป่วยหรือหยอกล้อกันอย่างสนุกสนาน	2.43	1.323
7	ชอบนั่งพูดคุยหรือหยอกล้อกับผู้ป่วยอย่างสนุกสนาน	2.39	1.300
4	แสดงออกถึงความรู้สึกซาบซึ้ง	2.24	1.334
15	แสดงออกถึงความเอื้ออาทร	2.20	1.406
9	ให้ความสำคัญกับสิ่งหนึ่งสิ่งใดในชีวิตตรงกัน	2.00	1.414
3	มีความสุขที่ได้ร่วมพูดคุยรื้อฟื้นถึงความหลังกับผู้ป่วยหรือเล่าเหตุการณ์ความ หลังต่างๆ ให้ผู้ป่วยฟัง	1.99	1.324
6	ผู้ป่วยให้ความช่วยเหลือ	1.95	1.330
2	มีความใกล้ชิดสนิทสนมกับผู้ป่วย	1.81	1.121
13	ผู้ป่วยให้กำลังใจและเห็นใจ	1.90	1.420
10	มีความทุกข์ผู้ป่วยช่วยปลอบใจ	1.39	1.460
12	ปรับทุกข์กับผู้ป่วย	0.94**	1.152

* ค่าเฉลี่ยสูงสุด ** ค่าเฉลี่ยต่ำสุด

3. ความพร้อมในการดูแล (ระดับคะแนน 0-4)

ข้อ	ความรู้สึกของท่านต่อผู้ป่วยในเรื่องต่อไปนี้	Mean	S.D.
8	ความพร้อมในการดูแลผู้ป่วยโดยรวม	3.02*	0.908
1	มีความพร้อมในการดูแลความต้องการในด้านร่างกาย	2.95	0.975
6	ความพร้อมในการจัดการกับภาวะฉุกเฉิน	2.77	1.046
7	ความพร้อมในการขอข้อมูลการให้บริการสุขภาพและจัดหาแหล่งให้ การดูแล	2.70	1.071
5	มีความพร้อมในการดูแลให้ผู้ป่วยและตนเองเกิดความพึงพอใจ	2.69	0.955
2	มีความพร้อมในการดูแลความต้องการด้านอารมณ์	2.56	1.113
4	ความพร้อมในการจัดการกับความเครียดที่เกิดขึ้นระหว่างการดูแล	2.35	1.010
3	ความพร้อมในการข้อมูลเกี่ยวกับการบริการและจัดหาบริการการดูแลผู้ป่วย	2.34**	1.160

*ค่าเฉลี่ยสูงสุด ** ค่าเฉลี่ยต่ำสุด

4. รางวัลที่ได้รับจากการดูแล (ระดับคะแนน 1-5 คะแนน)

4.1 ด้านการให้ความหมาย

ข้อ	ข้อความ	Mean	S.D.
4	ทำในสิ่งที่มีความสำคัญ	4.43*	0.784
21	มีความใกล้ชิดสนิทสนมกันมาก	4.39	0.910
25	รักหรือรู้สึกดีกับผู้ป่วยมากขึ้น	4.15	1.102
19	มีความสุขมาก	3.80	1.202
11	ชีวิตมีความหมายมากขึ้น	3.77	1.178
18	เป็นประสบการณ์ที่พึงพอใจ	3.75	1.137
9	รู้สึกดีต่อตนเอง	3.67	1.134
27	ภาคภูมิใจคนในครอบครัวมากขึ้น	3.57	1.145
13	คนในครอบครัวใกล้ชิดสนิทสนม	3.47	1.432
14	รู้สึกประสบความสำเร็จ	3.45	1.138
10	ผู้อื่นเห็นความสำคัญของการดูแล	3.30	1.475
24	ผู้อื่นชื่นชมหรือชาบซึ้งถือเป็นรางวัล	3.20**	1.284

ด้านจิตวิญญาณ

ข้อ	ข้อความ	Mean	S.D.
6	แสดงความกตัญญู/ร่วมทุกข์ร่วมสุข	4.45*	0.884
15	ตอบแทนบุญคุณ	4.31	1.123
5	รู้สึกปลื้มปิติ	4.14	1.192
1	ทำความดี	3.61	1.447
3	สร้างบุญกุศล	3.32	1.691
7	มีชีวิตที่ดีในชาตินี้หรือชาติหน้า	2.85	1.702

* ค่าเฉลี่ยสูงสุด

4.2 ด้านการเรียนรู้

ข้อ	ข้อความ	Mean	S.D.
2	เข้าใจตนเองเมื่อเจ็บป่วย	4.15	1.065
22	เรียนรู้เกี่ยวกับการดูแลสุขภาพ	4.03	0.953
23	ปรับตัวเองไปในทางที่ดีขึ้น	3.88	1.269
26	ดูแลสุขภาพตนเองดีขึ้น	3.07	1.438

4.3 ด้านการได้อยู่กับผู้ป่วย

ข้อ	ข้อความ	Mean	S.D.
20	มีคุณประโยชน์ต่อผู้ป่วย	4.21	1.084
17	ภูมิใจที่ได้เป็นคนหนึ่งที่ได้ดูแลผู้ป่วย	4.11	1.176
16	ช่วยชีวิตผู้ป่วยให้ดีขึ้น	3.98	1.031

4.4 ด้านการเงิน

ข้อ	ข้อความ	Mean	S.D.
8	ช่วยฐานะทางการเงินโดยไม่คาดคิดมาก่อน เช่น ได้เงิน/สิ่งของจาก ญาติอื่น	2.03**	1.281
12	มีความคล่องตัวทางการเงิน	2.75	1.529

** ค่าเฉลี่ยต่ำสุด

5. ความเครียดในบทบาท (ระดับคะแนน 0-4 คะแนน)

5.1 ความขัดแย้งในบทบาท

ข้อ	ข้อความ	Mean	S.D.
8	เป็นอุปสรรคต่อการประกอบอาชีพ	1.06	1.429
12	เป็นอุปสรรคการเข้าร่วมงานสังคม	0.84	1.223
7	เป็นอุปสรรคการทำหน้าที่เพื่อน	0.82	1.315
13	เป็นอุปสรรคการทำสิ่งดีๆ ให้กับตัวเอง	0.80	1.107
9	เป็นอุปสรรคการทำงานในบ้าน	0.71	1.152
11	เป็นอุปสรรคการทำกิจกรรมทางศาสนา	0.62	1.014
3	เป็นอุปสรรคการทำหน้าที่ลูกสาว	0.61	1.286
14	เป็นอุปสรรคต่อความรับผิดชอบอื่นๆ	0.60	1.006
2	เป็นอุปสรรคการทำหน้าที่แม่	0.41	1.034
4	เป็นอุปสรรคการทำหน้าที่พี่หรือน้อง	0.35	0.903
1	เป็นอุปสรรคการทำหน้าที่ภรรยา	0.29	0.85
6	เป็นอุปสรรคการทำหน้าที่ ป้า น้า อา	0.25	0.851
10	เป็นอุปสรรคต่อการทำหน้าที่นักศึกษา	0.22	0.806
5	เป็นอุปสรรคต่อการทำหน้าที่ย่า ยาย	0.10	0.574

5.2 การแสดงบทบาทไม่ตรงกับความคาดหวัง

ข้อ	ข้อความ	Mean	S.D.
5	ผู้ป่วยมีความคาดหวังมากเกินไป	1.35	1.456
1	ความช่วยเหลือใดที่คิดว่าควรให้กับผู้ป่วยแต่ไม่สามารถช่วยได้	0.75	1.198
2	หลังจากที่ทำเพื่อผู้ป่วยแล้ว ท่านคิดว่าไม่น่าจะทำสิ่งนั้น	0.52	1.332
3	ผู้ป่วยพยายามทำด้วยตนเองแต่ท่านควรช่วย	0.52	1.081
7	ภาวะสุขภาพ และความต้องการการช่วยเหลือทำให้ครอบครัวขัดแย้ง	0.49	0.714
4	ท่านต้องทำให้ผู้ป่วยแล้วท่าน คิดว่าผู้ป่วยควรทำเอง	0.45	0.863
6	ความช่วยเหลือบางอย่างที่ผู้ป่วยต้องการให้ช่วย แต่เป็นความลำบากใจ	0.02**	0.191

5.3 ความตึงเครียดเพิ่มขึ้น

ข้อ	ข้อความ	Mean	S.D.
1	เวลาให้กับตัวเองน้อยลง	1.37	1.255
8	การหยุดพักผ่อนหรือไปเที่ยวลดลง	1.37	1.333
3	ความเป็นส่วนตัวน้อยลง	1.25	1.230
12	ผู้ป่วยเอาแต่ใจทำให้ต้องเพิ่มความช่วยเหลือเกินความจำเป็น	1.18	1.369
14	เวลาพบปะเพื่อนฝูงหรือญาติพี่น้องลดลง	1.17	1.262
5	มีกิจกรรมเพื่อความเพลิดเพลินน้อยลง	1.13	1.253
13	เพิ่มความกังวลในเรื่องต่างๆ มากขึ้น	1.05	1.195
7	เพิ่มความตึงเครียดให้กับชีวิต	0.97	1.129
11	การทำงานส่งตัวหรืองานบ้านลดลง	0.87	1.126
6	ผู้ป่วยเรียกร้องให้ช่วยเหลือในสิ่งที่ไม่สมเหตุสมผล	0.73	1.141
2	ความสัมพันธ์ระหว่างผู้ป่วยกับตนเองทำให้เพิ่มความตึงเครียด	0.65	0.913
9	ความกังวลเกี่ยวกับสัมพันธภาพระหว่างกับผู้ป่วยและตนเองทำให้เกิดอารมณ์เศร้า	0.57	0.972
10	ผู้ป่วยเอาเปรียบ	0.12	0.400

5.4 ความเครียดโดยรวม

ข้อ	ข้อความ	Mean	S.D.
6	ความต้องการของผู้ป่วยเปลี่ยนแปลง การดูแล	1.78*	1.176
7	เมื่อผู้ป่วยต้องการดูแลเพิ่มขึ้นความมั่นใจในการดูแล	1.48	1.217
1	รู้สึกขาดอิสระ	1.01	1.177
3	รู้สึกเครียด	0.96	0.985
4	รู้สึกขาดความอดทน	0.94	0.970
2	เป็นความยากลำบาก	0.86	1.036
5	ผลดีผลเสียในการดูแล	0.68	0.928

* ค่าเฉลี่ยสูงสุด ** ค่าเฉลี่ยต่ำสุด

สรุปผล รายละเอียดของคำถามของการแสดงบทบาทไม่ตรงตามความคาดหวัง ข้อ 1-4

1. ความช่วยเหลือที่ญาติผู้ดูแลคิดว่าควรให้กับผู้ป่วย แต่ตนเองไม่สามารถให้ความช่วยเหลือได้

ข้อความ	จำนวน (คน)	ร้อยละ
1. การทำกายภาพบำบัด	11	10
3. การเคลื่อนย้าย พลิกตะแคงตัว	7	6.36
4. เวลาในการดูแลผู้ป่วย	4	3.6
4. การรักษาผู้ป่วย	4	3.6
5. เงินค่ารักษาผู้ป่วย	2	1.8

1. สิ่งที่ญาติผู้ดูแลทำเพื่อผู้ป่วย แต่หลังจากทำแล้วคิดว่าตนเองไม่น่าจะทำสิ่งนั้น

ข้อความ	จำนวน (คน)	ร้อยละ
1. การว่ากล่าวผู้ป่วย	12	10.9
2. การให้ผู้ป่วยรับประทานอาหารที่ไม่เหมาะสมกับโรค	6	5.45
3. การเคลื่อนย้าย	1	0.9
4. เล่าปัญหาของตนเองให้ผู้ป่วยฟัง	1	0.9
5. ทำรุนแรงกับผู้ป่วย	1	0.9
6. อาบน้ำ	1	0.9

3.สิ่งที่ผู้ป่วยพยายามทำด้วยตนเอง แต่ญาติผู้ดูแลคิดว่าควรช่วยเหลือในสิ่งนั้น

ข้อความ	จำนวน (คน)	ร้อยละ
1. การนั่ง	10	9.09
2. การเดิน	10	9.09
3. การรับประทานอาหาร	7	6.36
4. การหยิบสิ่งของ	7	6.36
5. การทำความสะอาดหลังขับถ่าย	5	4.54
6. การอาบน้ำ	3	2.72
7. การพลิกตะแคงตัว	3	2.72
8. การแต่งตัว	3	2.72
9. การเข้าห้องน้ำ	2	1.8

4. สิ่งที่ญาติผู้ดูแลต้องทำให้ผู้ป่วย แต่ญาติผู้ดูแลคิดว่าผู้ป่วยควรทำสิ่งนั้นด้วยตนเอง

ข้อความ	**จำนวน(คน)**	**ร้อยละ**
1. การทำกายภาพบำบัด	13	11.8
2. การรับประทานอาหาร	13	11.8
3. การดื่มน้ำ	6	5.45
4. การเดิน	6	5.45
5 การลุกนั่ง	5	4.54
6. การแต่งตัว	3	2.72
7. การอาบน้ำ	3	2.72
8. การพลิกตะแคงตัว	1	0.9
9. การนอน	1	0.9
10. การปลดเข็มขัด	1	0.9
11. การทำความสะอาดปาก	1	0.9
12. การหยิบสิ่งของ	1	0.9

ความสัมพันธ์ระหว่างตัวแปรทั้งหมด

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Strain from worry	1.000										
2. Mutuality	.140	1.000									
3. Preparedness	.055	.322***	1.000								
4. Rewards of caregiving	.101	.516***	.634***	1.000							
5. Family economic status	-.091	-.015	.212	.240*	1.000						
6. Perceived level of patient dependency	.122	-.095	.152	.115	-.114	1.000					
7. Role strain	.447***	-.071	-.295**	-.226**	-.197*	.061	1.000				
Role conflict	.290**	.058	-.255**	-.032	-.137	.064	.774***	1.000			
Mismatched expectation	.376***	.090	-.074	-.085	-.185*	.082	.615***	.317*	1.000		
Increased tension	.411***	-.097	-.255**	-.261**	-.184*	.013	.895***	.481***	.505	1.000	
Global strain	.348***	-.316***	-.344**	-.363***	-.110	.073	.757***	.377***	.417***	.692***	1.000

* p < .05 ** p<.01 ***p< .001

APPENDIX F

Testing Assumption of Multiple Regression Analysis

Testing Assumption of Multiple Regression Analysis

The data were check before conducting an analysis that consist of checking for outliers, multicolinearity, check the bivariate relatonship to be sure they were linear, normal distribution, homoscedticity (Munro, 2000: 271-275). The results for each assumtion were presentd as follow:

1. Normal distribution

By using a histogram of the standardized residuals to assess normal distribution, the relationship between the independent variables and dependent variable were shown as linear. Besides, the dependent variable was normally distributed for each value of the dependent variable. Therefore, the residuals were fairly normally distributed, with one peak of .00 of standard deviation above the mean. It was possible to indicate that was normal distribution (**Figure 3**).

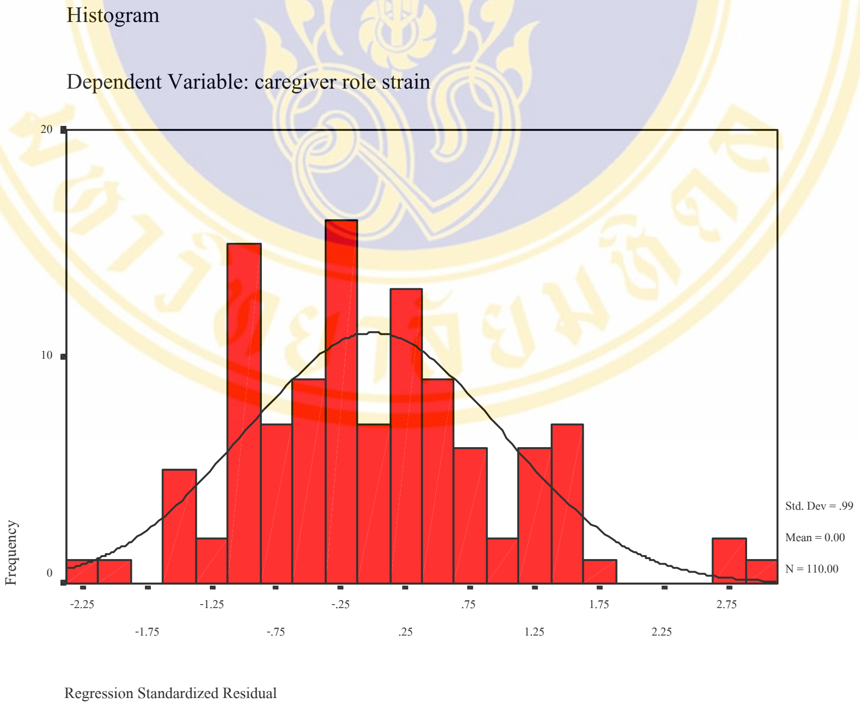

Figure 3 histogram of residuals

2. Homoscedasticity

To check this assumtion, the residuals were plotted against the predict values and against the independent variables. The result revealed that the actual scores varied around the prediction line, with the data forming a straight line from the lower-left corner to the upper-right corner and the upper-left to lower-right. In Figure 4 note that the actual scores vary around the predict line, but in general they cluster fairy closed to the line, but in general they cluster fairly closed to the line.

When the residuals from a normal distribution, the plotted values fell close to the line of normal probability plot (Figure 5).

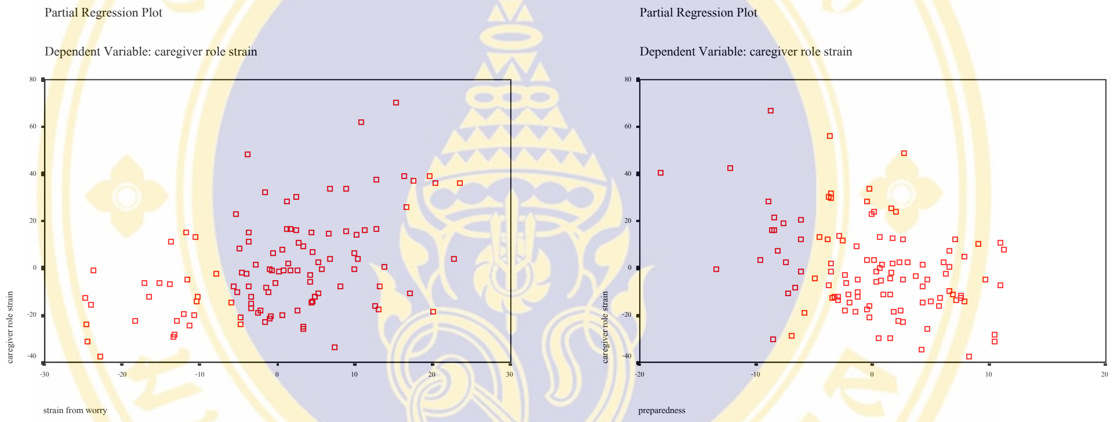

Figure 4 Scatter plot between regression residual and regression predicted value

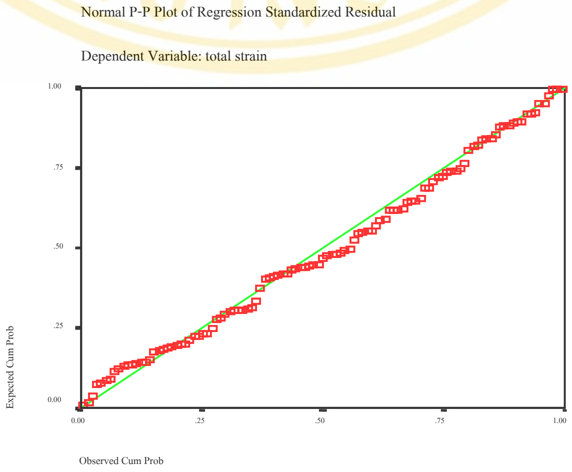

Figure 5 Normal P-P plot of regression standardized residual

3. Testing assumtions by multicollinearity

The Pearson's Product Moment Correlation was performed to evaluate. The relationship between independent variables. The result of this analysis showed that had relationships between independent variables and independent variable, but all correlation coefficients were less than 0.8, this meant that that there was no multicollinearity.

The tolerance of a variable was used as a measure of collinearity. The tolerance values was a low of .997 to a high of 1.000 (table 8). Therefore, the multicollinearity was not problem in this study this analysis.

As a result, it could be concluded that Multiple Regression analysis that was employed in this study could be an appropriate statistics methodology to test the data in this study because the data met all of this assumtions required by this method.

Table 8 Unstandardized coefficients, Standard error, Standardized coefficients, t-value, and collinearity statistic of strain from worry, preparedness, and constant.

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t-value**	**Sig.**	**Collinearity Statistics**	
	B	**Std.Error**	**Beta**			**Tolerance**	**VIF**
1 (constant)	-5.412	7.537		-.718	.474	1.000	1.000
Strain from worry	.891	.171	.447	5.197	.000		
2 (constant)	18.826	9.345		2.015	.046		
Strain from worry	.926	.161	.465	5.749	.000	.997	1.003
Preparedness	-1.203	.303	-.321	-3.966	.000	.997	1.003

BIOGRAPHY

NAME	Miss Aree Saengratsamee
DATE OF BIRTH	June 23, 1975
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INSTITUTIONS ATTENDED	Boromrajonnani College of Nursing Saraburri 1996-1999: Bachelor of Nursing Science, Affiliated to Mahidol University Mahidol University, 2001-2004: Master of Nursing Science (Adult Nursing)
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