

Psychometric Analysis of Family Care Actions Index (FCAI) in the Thai Population

By

Supreeda Monkong

A Dissertation

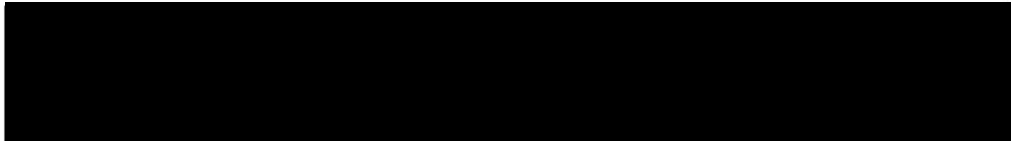
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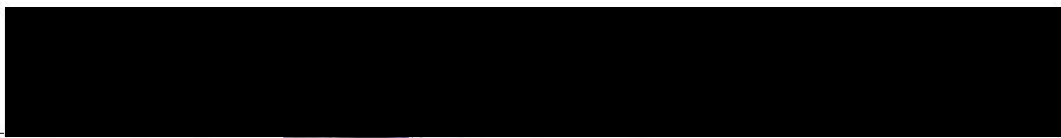
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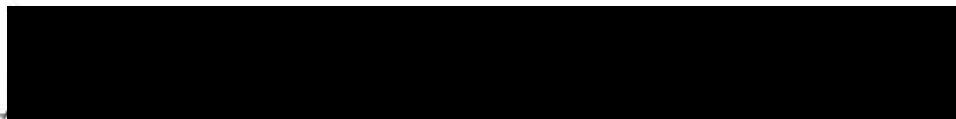
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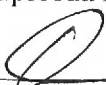
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ABSTRACT

TITLE: Psychometric Analysis of Family Care Actions Index (FCAI) in the Thai Population

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The purpose of the study was to establish the psychometric properties of the Thai Family Care Actions Index (FCAI) and explore the relationship between the Thai FCAI and strain associated with family care actions in the hospital, mutuality, preparedness for caregiving at home, and caregiver role strain at 2 weeks post discharge. Two phases were performed. Phase I included the translation and back-translation process for the FCAI and the evaluation by Thai experts of the Thai FCAI's content and construct validity. Phase II included performing item analyses, criterion validity, hypotheses, and research questions testing. Data were collected at a university hospital located in a metropolitan area in Thailand. The sample consisted of 220 Thai caregivers; 78.6 % were female, and 49.1% were daughter caregivers. The average age of elders was 72 years, and 57.7% were female. At the time of discharge, most elders needed help with bathing, dressing, and walking. Of the original 81-item FCAI, 24 items demonstrated adequate item discrimination, difficulty, content and criterion validity. This study demonstrated that preparedness was negatively related to caregiver role strain at 2 weeks post discharge. The amount of family care actions and strain from family care actions in the hospital, mutuality, and preparedness were related to caregiver role strain at 2 weeks post discharge. The moderator-interaction

effect of preparedness was not confirmed. A significant negative relationship was found between the amount of caregiving activities in the hospital and strain associated with caregiving activities, but a significant positive relationship was found at home. Based on the results of this study, health care professionals should encourage family participation during hospitalization and assess caregiver preparedness before hospital discharge. Cultural differences influenced the results in this study. Thai families participate in the care of their hospitalized elders to fulfill the expected culture norm of filial obligation. Any correlation with strain from family care actions in the hospital must be interpreted with caution.

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CHAPTER 1

INTRODUCTION

Advances in medical technology and care make it more likely that people will live past the age of 65. Due to declining mortality rates, the number of elders and their proportion of the population in the U.S. are increasing (Pierce, Wright, & Fulmer, 1992). Despite extended longevity, the elders are at increased risk for experiencing both acute and chronic conditions that necessitate they be cared for by their families (Burns, Archbold, Stewart, & Shelton 1993).

Thailand is no exception to these demographic trends. As a result of the rapid decline in the mortality rate during the latter part of the twentieth century, Thailand's society is aging. Based on World Health Organization (WHO) standards, an elder is defined as a person who is age 60 or older. In a 2002 national survey conducted in Thailand, elders constituted 9.4% of the population (National Statistical Office, 2002). Life expectancy at birth for those born between 2000-2005 is 68.2 years for males and 72.4 years for females, up from 62.2 and 66.2 years, respectively, for those born in 1990 (Human Resource Planning Division, 1995). It is expected that elders will comprise 15.3% of the total population by 2020, compared to 7.4 % in 1990 (Jitapunkul & Bunnag, 1997).

The health policy in Thailand relies on family and relatives to assist elders at home (Chayovan & Knodel, 1997; Jitapunkul & Bunnag, 1997; Wongsith & Siriboon, 1999). The 8th National Economic and Social Development Plan (1997-2002) promoted the social value of older adults in conjunction with a better understanding of family care, and offered consideration of incentives for children or relatives who

provide care for the elder members of their family (Wongsith & Siriboon, 1999). According to the National Statistical Office (2002), almost all Thai elders (93.6%) live with their spouse, their children, or with other relatives and 6.4% of them live alone.

Elders are more frequently ill and are expected to be admitted to the hospital three times more often than any other age group (Chayovan, Knodel, & Siriboon, 1992; Jitapunkul & Bunnag, 1997). Elders represent 30% of all hospital admissions in the acute care hospitals in Thailand (Jitapunkul et al., 1998). Additionally, elders have complex and multiple chronic illnesses that result in acute health care needs that require hospital stays for treatment. These conditions are also associated with longer lengths of stay than for other age cohorts and require family caregivers to provide continuity of care at home following discharge.

In Thailand, the resources for post-discharge services, including nursing home and home health care visits by registered nurses, are limited (Jitapunkul & Bunnag, 1997). The cost of private nursing home care varies from 5,000-50,000 Bath per month (approximately \$125- \$1,250/month) (Jitapunkul & Bunnag, 1997). This rate is high when one considers that the average monthly income in Thailand is 12,185 Bath per household (approximately \$300) or 3,404 Bath per person (approximately \$85) (National Statistical Office, 2002). In addition, it is culturally unacceptable for Thai caregivers to institutionalize elder relatives in a nursing home. Consequently, the responsibility of caring for elders after discharge is increasingly placed on family caregivers, making it more likely that caregiving at home will put additional strain on the family (Knodel, Chayovan, & Siriboon, 1991; Wongsith, Siriboon, & Entz, 1996).

In Ramathibodi Hospital, a university hospital in Bangkok, Thailand, the population of elders age 60 or older admitted to the hospital increased from 16% in 1984 to 24.5% in 2000 (Ramathibodi Statistical Office, 2000). Although these statistics indicate there are more hospital stays, the length of stay is getting shorter. In 1996, the average hospital stay for an elder was 11 days in the medical wards, 12 days in the surgical wards, and 13 days in the orthopedic compared to 9.3, 10.4, and 10.1 days, respectively, in 2001 (Ramathibodi Statistical Office, 2002).

Post-discharge, most of the elders' recovery must take place at home. Elders leave the hospital with ongoing health care needs due to functional decline (Sampatanukul, 1999; Yamvong, 1995). Functional decline is defined as a decrease in the ability to perform the activities of daily living (i.e., eating, bathing, dressing, walking, transferring, voiding, and eliminating) during hospitalization and after their discharge. When this occurs, elders need help from their family members.

Therefore, there is a need for health care providers to understand and support the roles that family members assume and to encourage family caregivers to provide care for elders during hospitalization. Family care actions during hospitalization may help family caregivers prepare for caregiving at home. Yet, little is known about how caregivers experience the caregiving role during hospitalization and the transitional period from hospital to home, and about factors that may influence their caregiving strain after hospitalization. Measures of family caregiving during hospitalization are scarce or still in the development and testing stages. The purpose of this study is to establish the validity and reliability of an instrument to measure family caregiving in

the hospital in the Thai population and determine how hospital and home caregiving experiences are related.

In the U.S., Li and Stewart (2000) developed the Family Care Actions Index (FCAI) to assess family caregiving in the hospital setting. The index was derived inductively from a qualitative study with family caregivers for hospitalized elders in the U.S. (Li, 1996; Li, Stewart, Imle, Archbold, & Felver, 2000). Three dimensions of family care actions were: (a) providing care to the patient, (b) working together with a health care team, and (c) taking care of self. Initial evidence of the psychometric adequacy of the FCAI as used in a hospital setting in the U.S. has been demonstrated. Cronbach's alpha on two convenience samples of 30 and 40 family caregivers of hospitalized elders was .92 and .93, respectively (Li, Stewart, & Archbold, 2002).

Construct validity was tested by correlating total scores on the FCAI with scores on measures of mutuality and encouragement from staff to participate in care. Mutuality, the positive quality of the relationship between patient and caregiver, was measured with a 5-point, 15-item scale. Thus, high scores referred to high mutuality. Encouragement from staff to participate in care was a self-reported: the family caregiver was asked to rate the encouragement he or she received from nurses for participating in the patient's care on a Visual Analog Scale from 1 to 10 (H. Li, personal communication, May 16, 2003). Scores with encouragement were directly related, so high scores represented high encouragement from staff. Significantly positive correlations were found between the FCAI and mutuality ($r = .36, p < .05$) and between the FCAI and encouragement from staff ($r = .50, p < .05$) (Li et al., 2002).

Li et al. (2000) hypothesized that the successful family care of hospitalized elders would be reflected by high scores on all three dimensions of the FCAI. However, the FCAI has never been tested in Thai culture. This is the first study to evaluate the psychometric properties of the FCAI in the Thai culture. In addition, a new strain measure will be developed to measure strain associated with family care actions in the hospital.

Theoretical Framework

One concept in role theory, symbolic interactionism (Burr, Leigh, Day, & Constantine, 1979) is used to describe caregiving in the current study. Role theory represents “a collection of concepts and a variety of hypothetical formulations that predict how actors will perform in a given role, or under what circumstances certain types of behaviors can be expected” (Conway, 1988, p. 63). According to role theory, a person fulfills his or her role based on cultural, familial, and social expectation.

Symbolic interactionists are interested in antecedents of the phenomena; contextual variables such as social status, social norms; and variables in the situations as explanations of what goes on in the minds of individuals. They view contextual variables as contributing factors to describe and explain the relationships among phenomena rather than causal explanations of phenomena. Symbolic interaction can help researchers understand how family caregivers interact with the elders and health care professionals, and how they take action or engage in a process in response to a caregiving situation in the hospital.

A key assumption of symbolic interaction is that “human beings act toward things on the basis of the meanings that things have for them” (Blumer, 1969, p. 2).

Four sets of interrelated concepts are: identities, roles, interactions and contexts. Identities are conceptualized as self-meaning in a role (LaRossa & Reitzes, 1993). Within each unique situation, the meanings that a caregiver has formulated will influence his/her behavior. The concepts of interaction and context are interwoven throughout this process. Meanings of family caregiving arise out of the social interactions that the caregiver has with the care recipient or interactions between the caregiving dyad and others over time. Consequently, the context of caregiving is different from one setting to the next.

The way in which family caregivers learn the role of caregiver may occur reflexively, through one's thoughts, dialogue with self, or interaction with others (Burr et al., 1979). The role acquisition process involves the basic concepts of self or identity, definition of the situation, and role taking. In order to shape a role, people take into account important aspects of self, appraise the situation, come to understand its meaning for themselves and imagine themselves in the situation of the caregiving role. All arise from interaction and shape subsequent interaction.

Li et al. (2000) studied the nature of the caregiving role during hospitalization. Their contributions included exploratory work to identify the nature of the caregiving role during hospitalization. Results were based on the qualitative study with hospitalized elders, family caregivers, and nurses. Three dimensions of family caregiving during hospitalization emerged: (a) providing care to the patients, (b) working together with the health care team, and (c) taking care of self. Eight categories that emerged from their study included: (a) being there, (b) performing typical family functions in the hospital, (c) providing passage between home and

hospital, (d) attending to the patient's personal care needs, (e) exchanging information between the family and the health care team, (f) collaborating with the health care team to provide personal care, (g) participating in therapeutic health care regimens, and (h) making sure the health care team takes care of the patient's needs.

Li and Stewart (2000) developed the Family Care Actions Index (FCAI) based on their qualitative work. The purpose of the FCAI was to assess family care actions in the hospital setting. Family care actions were defined as "what family members say or do to help an older relative in the hospital" (Li et al., 2000, p.7). Family care actions were measured with an 81-item questionnaire completed by family caregivers. The 81-item FCAI covered the three dimensions and the eight categories derived from the qualitative study.

Archbold and Stewart (1986) developed the conceptual framework of caregiving at home based on role theory and their qualitative work. Role theory focuses on interactions between an individual and others and includes both the positive and negative experiences of caregiving. These researchers viewed caregiving as a role to understand how the caregiver learns and evaluates his or her ability to perform the role (Archbold, Stewart, Greenlick, & Harvath, 1990). Archbold and Stewart (1986) were interested in three categories related to family caregiving at home: (a) antecedents of caregiving, (b) the nature of the caregiving role, and (c) the responses to caregiving. Antecedents of caregiving influenced the nature of the caregiving role, and then the nature of the caregiving role influenced the responses to family care.

Antecedents of caregiving were characteristics of the caregiver and care receiver, the quality of the relationship between caregiving dyads (mutuality), and preparedness for caregiving. The nature of the caregiving role included the amount and type of family care, the amount of help from others, and the predictability of the caregiving situation. The responses of family care were caregiver role strain and the rewards of caregiving.

The researchers developed the Family Care Inventory (FCI) to measure seven concepts within their conceptual framework. The seven key concepts used in their framework include: (a) mutuality, (b) preparedness for family care, (c) amount of family care, (d) help from others in family care, (e) predictability, (f) caregiver role strain, and (g) the rewards of caregiving. Archbold and colleagues (1990) conducted a longitudinal correlation study over a 9-month period following elders' discharge from the hospital to assess the relationships among key concepts. The results revealed that predicted relationships were supported: high mutuality and high preparedness were associated with lower levels of several aspects of caregiver role strain in family caregivers of post-hospitalized elders.

However, little is known about the nature of the caregiving role during the transition period from hospital to home. Transition is defined as a passing from one condition, stage, place, or subject to another (Webster, 1993). The current study selected the concepts related to the nature of the caregiving role in the hospital and at home to understand the transition period from hospital to home. As a result, the caregiving processes whereby family caregivers interact with patients and the health care team are embedded with, and could not be separated from, the caregiving context.

Nor could the caregiving processes be separated from the consequences those meanings may have in a caregiving setting. Conceptualizing and measuring these concepts will sensitize health care professionals to understand the nature of the family caregiving role and the caregiving process during hospitalization and the transition period from hospital to home.

Figure 1 represents the conceptual model underlying the current study. The caregiving process transition from hospital to home is thought to be affected by four categories of variables: (a) antecedent characteristics of elders and caregiver, (b) caregiving in the hospital, (c) preparedness for family care, and (d) the amount of care activities and caregiver role strain at home. The pertinent characteristics of hospitalized elders and their family caregivers include their age, gender, the type and quality of the relationship between the hospitalized elder and the caregiver. The type of relationship between an elder and a caregiver (such as marital dyads, parent and children, or friends) may predict different expectations for giving and receiving care.

Caregiving in the hospital is characterized by the family care actions that caregivers perform and the strain they experience as a result of these actions. Three dimensions of family care actions included: (a) providing care to the patients, (b) working together with the health care team, and (c) taking care of self. Preparedness for family caregiving is hypothesized to increase as caregivers perform more actions in the hospital, thus helping them to enact their role at home. Preparedness might be a moderator between caregiving in the hospital and at home. Caregiver role strain within 2 weeks following discharge has been selected to be a subsequent response to the caregiving transition from hospital to home. Understanding how caregivers experience

their caregiving roles during hospitalization and what antecedent and consequent factors are associated with the caregiving roles is needed to facilitate a smooth transition to the home setting.

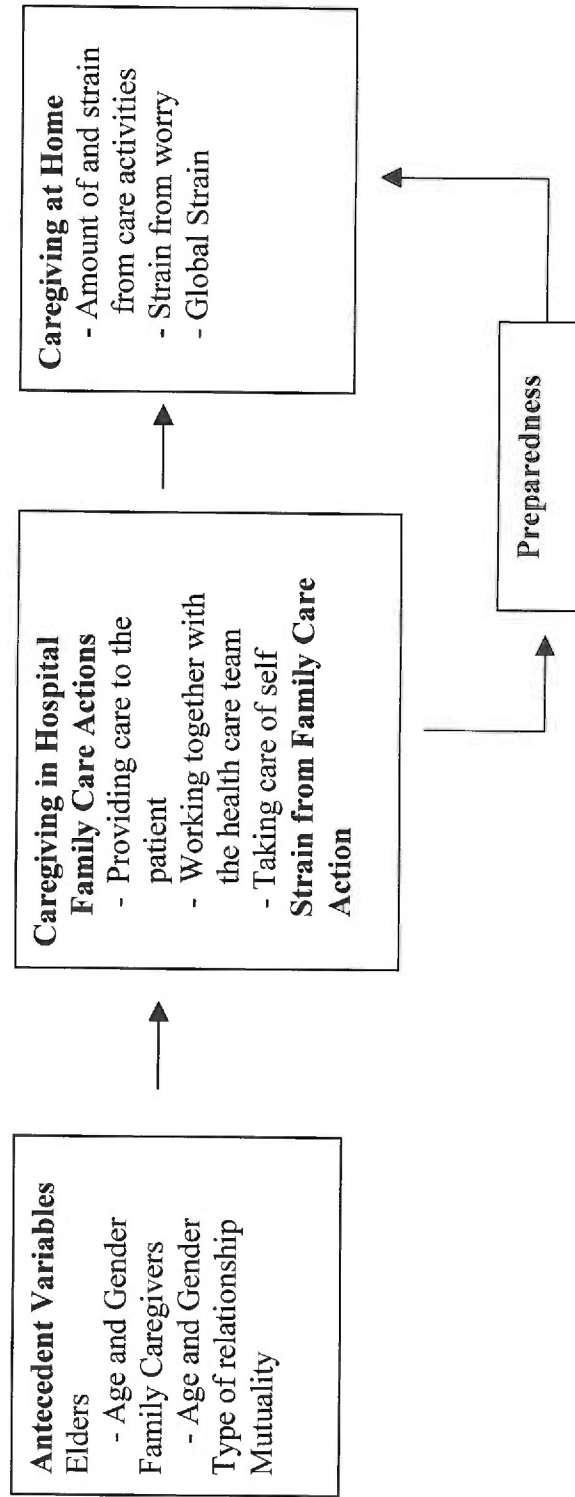


Figure 1. Caregiving Process Model from Hospital to Home

CHAPTER 2

REVIEW OF THE LITERATURE

Family caregiving of elders has become an important focus of gerontological nursing, families are the main source of care for elders. According to Archbold and Stewart (1986), family caregiving is defined as the provision of caregiving by one family member for another. Family caregiving can be performed for elders living at home, in nursing homes, or in hospital settings. However, little attention has been paid to family caregiving of elders within the hospital setting and during the transition period from hospital to home.

This literature review focuses on concepts presented in Figure 1. First, family caregiving of Thai elders, mutuality, preparedness, caregiver role strain, and the nature of the caregiving role in the hospital and at home will be reviewed. This will be followed by a review of literature on family participation during hospitalization and a description of the development of the Family Care Actions Index (FCAI), a measure of family care actions in the hospital, and Family Care Actions Index Strain (FCAI Strain). Finally, the specific aims, the hypotheses, and the research questions will be presented.

Family Caregiving of Thai Elders

The ability and willingness to provide care is a critical factor in family caregiving (Burns et al., 1993). Thailand is undergoing modernization and has successful family planning programs that promote decreasing family size. Thai elders may be vulnerable to the negative effects of this modernization. Some of these effects include the transition from the traditional extended family system; the changing roles

of women, now part of the work force; and a decrease in birthrate resulting in fewer potential caregivers for the elderly parents of the future (Caffrey, 1992). The higher percentage of elderly in the total population and the decreasing number of caregivers point to the need to carefully consider how limited resources for providing care to the frail elderly should be distributed. It is likely that adult family members will be faced with helping at least one elderly family member in their lifetime, and when demands for care are greater than available resources, they will be at risk of becoming overburdened.

The family is the main institution for giving care to Thai elders. Adherence to the value of family responsibilities is very strong in Thai culture. In addition, the Thai people have a strong belief in the Buddhist religion and the notion of filial obligation, which teaches respect for and care of parents, particularly when old and/or ill. Buddhist doctrine stresses the concept of parent repayment in which children are expected to repay their parents for having borne and raised them (Knodel et al., 1991; Wongsith et al., 1996). Therefore, Buddhists do not wish to leave their parents alone and make every effort to provide for their care. Generally, they are happy and feel proud to be able to take care of their elder parents as a form of repayment, and feel guilt and shame if they do not or are unable to take care of their elder parents.

Caffrey (1992) studied family caregiving of the elderly in the rural areas of Northeast Thailand. The results showed that 80% of the Thai elderly expect that their children will take care of them when they age. This researcher also identified three major motivators for giving care to an elder relative: (a) filial obligation, (b) affective bonding, and (c) reciprocity.

First, the value of filial obligation is a strong norm and continues to play a major role in a family's decision to provide care for an elderly relative. To fulfill the expected cultural norm of filial obligation, families continue to provide care as primary caregivers for the elderly.

Second, affective bonding is one of the major motivators for children to continue caring for their parents. They are happy to be caregiving. They also take some pride in doing what they know is best for their parents. They put the needs of their elderly parents above their own needs, and do not expect anything in return from them.

Third, the norm of reciprocity is comprised of two perspectives: (a) repayment to their elderly parents for their upbringing and the care provided to them from childhood to adulthood, and (b) a future orientation, which involves building up future merit for themselves. Both perspectives are reinforced by Buddhist doctrine. The first perspective stresses parent repayment, the latter emphasizes making merit or *tamboon*. Making merit is based on the generalized reciprocity and the Thai cultural norm of filial obligation. Thai people believe in the accumulation of merit as a resource to enhance the possibilities of having a better position in this life and to ensure them a prosperous rebirth. Consequently, some caregivers gain personal satisfaction from their caregiving experience based on the norm of reciprocity and an affective bond to the elderly.

Currently, the decision to have Thai elders live with their family members is influenced by the character and behavior of family members. The decision is also influenced by the family member's level of responsibility, which can affect the

caregivers' ability and willingness to take care of their elder family members. Family caregivers for elders may be a spouse, daughter, daughter-in-law, son, grandchildren, or other relative. Therefore, the role of the family and relatives as caregiver is a prominent issue with regard to the care and support of elders in Thailand.

Mutuality

The quality of the relationship between the caregiver and care recipient is a critical variable in family caregiving. Mutuality is one of the concepts used to describe the positive quality of relationships. Hirschfeld (1983) identified that the important components of mutuality included: (a) "the caregiver's ability to find gratification in the relationship with the impaired person and meaning from the caregiving situation" and (b) "the caregiver's ability to perceive the impaired person as reciprocating by virtue of his/her existence" (p. 26). Hirschfeld reported that caregivers who had high levels of mutuality were able to continue caregiving despite objectively difficult situations.

Archbold, Stewart, Greenlick, and Harvath (1992) conceptualized mutuality as "the positive quality of the relationship between a caregiver and a care receiver" (p. 328). Mutuality has four dimensions: (a) love and affection, (b) shared pleasurable activities, (c) shared values, and (d) reciprocity. Archbold and colleagues (1990) studied mutuality as a predictor of strain in caregivers caring for an elder post-hospitalization. After controlling for five variables related to caregiver role strain (i.e., gender of the caregiver, being a spouse or nonspouse, degree of cognitive and physical impairment of the care receiver, and amount of direct care), they found that mutuality

was negatively associated with caregiver role strain from direct care, tension, and global strain, but was not associated with strain from worry or lack of resources.

Kespichayawattana (1999) used a qualitative method to study the Thai cultural value of *katanyu katavedi* in relationship to caregiving of frail elderly parents in Bangkok, the urban area of Thailand, during a period of social and economic change. The concept of *katanyu katavedi* refers specifically to the parent-child relationship, which strongly supports and maintains the principle of family caregiving in Thai families. The concept of *katanyu katavedi* consists of: (a) *bun khun* of parents, which refers to all the benefits which were bestowed upon the children; (b) *katanyu*, which means the sense of gratitude towards parents; and (c) *katavedi*, which means the obligatory actions of paying back parents. The researcher found three cultural contextual factors underlying the concept of *katanyu katavedi*: (a) hierarchical relationships between parents and child, (b) social value of obligation to parents, and (c) religious teaching. The study also found that the caregivers who had a positive relationship with their parents also had more positive outcomes in their caregiving situation.

The positive outcomes of caregiving that emerged from Kespichayawattana's study included: happiness, praise from others, attaining merit, warmth, and the feeling of being lucky. The negative consequences of caregiving reported included: frustration with other family members, burden, deterioration of the caregiver's health, conflict with the elder, physical strain, stress, guilt, and social isolation. Kespichayawattana suggested a need for further correlational research to examine the relationships

between support systems and/or relationships with family, and the outcomes of the caregiving situation.

A comparison of the results from the two studies of family caregiving of Thai elderly revealed several similarities despite the differences in rural and urban settings and the time difference. Caffrey's (1992) study provided a comprehensive picture of the family caregiving system in a rural area a decade ago. Kespichayawattana's (1999) study explicated the current influence of cultural values of family eldercare in an urban area. Both studies used the qualitative method to study the influence of Thai culture, and the findings from both were based on the concept of parent repayment in Buddhist doctrine. The consistency between the studies suggests that social cultural value still strongly supports family caregiving of the elderly. The impact of modernization has not resulted in major changes in caregiving roles; family is still the main institution in eldercare, and culture norms play an important role in guiding Thai children to take care of their elderly parents. Interestingly, the three cultural contextual factors underlying the concept of *katanyu katavedi* are related to the three motivations in family caregiving identified by Caffrey.

Recently, Sirapo-ngam, Putwatana, and Wongjunlongsin (2000) reported the positive feeling of caregivers for patients with cerebrovascular disease (CVA). The most positive experiences reported from caregivers included "having the opportunity to repay the patient's kindness," "having more experience and knowledge for self protection and giving advice to other," and "having a close relationship with patients" (p. 11).

The positive quality of the relationship between the caregiver and the elder in the Thai context may be different from mutuality in terms of expressing feelings toward other people. The four dimensions of mutuality defined by Archbold and colleagues can also be found in Thai culture. These four dimensions have been supported by Caffrey (1992), Kespichayawattana (1999), and Sirapo-ngam et al. (2000). However, for Thai caregivers, some items may not represent the precise meaning of mutuality. For example, in the dimension of reciprocity, item 4 asks: “How much does he or she express feelings of appreciation for you and the things you do?” Children might not perceive any expression of gratitude from their parents even though they do the best to care for their elderly parents. Elderly parents do not verbalize feelings of love their children, but rather keep those feelings to themselves as is normal in Thai culture. The same is true for item 15 which asks: “How often does he or she express feelings of warmth toward you?” In the context of the Thai culture, these two items in the dimension of reciprocity may earn low scores.

Wirojratana (2002) used the mutuality scale developed by Archbold and colleagues in a Thai population with a sample of 80 caregivers of elders at home. The researcher adapted some items for cultural appropriateness in the subscales of reciprocity, shared values, and shared pleasurable activities. For example, the word “warmth” in item 15 was changed to *auarthon*, which is an interpretation as opposed to a direct translation, to help caregivers understand the meaning of the item. The appropriateness of mutuality, including reliability and content validity, for the Thai caregivers was confirmed. Evidence for construct validity of mutuality was tested against caregiver role strain. Mutuality was inversely related to strain from care

activities ($r = -.37, p < .01$) and global strain ($r = -.31, p < .01$). Thai caregivers who had a positive relationship with the care receiver experienced less strain from care activities and less global strain. These findings confirm the conceptual model underlying the current study. Mutuality was also used in the current study as a criterion variable with family care actions during hospitalization.

Preparedness

The concept of preparedness used by Archbold and colleagues (1992) was derived from role theory. According to Burr et al. (1979), learning a role before entering into it is very important to role enactment and performance. Consequently, preparedness for caregiving is defined as “how well prepared the caregiver believes he or she is for the tasks and stress of the caregiving role” (Archbold et al., 1992, p. 328). Preparedness for caregiving was strongly predictive of lower levels of caregiver role strain in family caregivers for post-hospitalized older persons in the 6-week period following hospitalization (Archbold et al., 1990). Higher levels of preparedness were associated with lower levels of strain from direct care, strain from increased tension, global strain, and strain from worry and lack of resources.

In 1995, Archbold and colleagues conducted a pilot intervention study designed to increase preparedness, enrichment and predictability at home (PREP). The nature of, and rationale for, the intervention was based on their previous study (Archbold et al., 1990), which indicated that caregiver role strain might be reduced by increasing preparedness, mutuality, rewards, and a sense of control and predictability. The researchers found that the mean level of preparedness, enrichment, and predictability for PREP caregivers was significantly higher than for the control group

($p < .05$). However, the sample was too small (11 interventions with 11 control families), and the length of intervention for a period of 10 to 25 weeks was not long enough to demonstrate a reduction in caregiver role strain.

A grounded theory by Congdon (1994) found variability in discharge readiness in that patients were ready for discharge while their family members were not, and nurses were uncertain. Discharge readiness was defined as “the perception of being prepared or not prepared for hospital discharge” (p. 127). Discharge readiness is similar to the concept of preparedness in the home setting. Discharge readiness emerged in the hospital while people prepared to go home; preparedness, on the other hand, was originally used for the caregiving setting at home. Results from Congdon’s study revealed that nurses were in the unique position to strengthen the discharge preparation of hospitalized elders and their families.

Kneeshaw, Considine, and Jennings (1999) correlated preparedness developed by Archbold and colleagues (1992) at hospital discharge with the recovery outcomes of elderly women following coronary artery bypass graft (CABG) surgery. The results of the study demonstrated that preparedness is positively correlated with the self-reported recovery measure at 3 months post-surgery. Feelings of preparedness at the time of discharge had a moderate effect on the relationship between self-reported attitudes toward performing activity and following a cardiac diet with recovery at 3 months post hospital discharge.

In Thailand, Sampatanukul (1999) conducted a descriptive study with 60 dyads of caregiver and care receivers admitted into a general medical unit at Ramathibodi Hospital. The study aimed to examine the functional status of elders during

hospitalization and how family members prepared to manage their caregiving role at home. Results indicated that the functional status of the hospitalized elders significantly declined in the first two days of admission and prior to discharge, compared to the functional status prior to admission. The results supported the idea that due to functional decline, hospitalized elders need help from their caregivers and continue to need help following discharge. Consequently, family caregivers need to prepare themselves to take care of their elder family members at home.

The results of Sampatanukul's study indicate that family preparation during hospitalization should include: (a) preparation for whomever will be a primary caregiver, (b) development of the knowledge and skills needed for caring at home, and (c) proper arrangement of the household environment. This study supports the concept that, in Thailand, a family caregiver's preparedness regarding caregiving at home exists in the hospital setting. Findings from Sampatanukul's study also provide specific information about family caregivers' preparedness in Thailand. Family caregivers prepared for their caregiving role by developing caregiving skills and modifying their home environment before the elders were discharged.

Wirojratana (2002) used the preparedness scale developed by Archbold and colleagues (1992) in Thailand with a sample of 80 caregivers of elders at home. Evidence for content construct validity of preparedness was confirmed by finding expected correlational patterns with caregiver role strain. Preparedness was inversely related to strain from care activities ($r = -.41, p < .01$), and global strain ($r = -.57, p < .01$). Even though preparedness has been measured, used and supported in the home care setting in Thailand, it has never been used at the time of hospital discharge.

The shorter length of hospital stays may suggest that preparedness needs to start during hospitalization before the patients are discharged home. According to Sampatanukul's study (1999), the concept of preparedness is relevant to the caregiving role during hospitalization in Thailand. Preparedness may bridge the caregiving experiences between the hospital and the home settings. Therefore, for this study, preparedness at the time of hospital discharge was correlated with caregiving in the hospital (i.e., amount of family care actions and strain from family care actions), caregiver role strain from care activities, worry, and global strain at 2 weeks post-discharge home to support the use of the conceptual model underlying the current study.

In this study, preparedness was tested as a moderator variable on the relationship between caregiving in the hospital and caregiver role strain at home. Caregiver preparedness may be found to correlate with the extent to which caregivers participated in caregiving in the hospital and the level of strain they experienced afterwards in the home setting. Preparedness might affect the direction and/or the strength of the relationship between caregiving in the hospital and in the home setting. Caregivers who feel highly prepared because of the extent of their participation in caregiving in the hospital may experience lower levels of strain at home. Conversely, caregivers who feel less prepared because of the extent of their participation in caregiving may experience higher levels of strain at home. In addition, caregivers who feel less prepared because of strain from family care actions in the hospital may also experience higher levels of strain at home. This correlation, however, may be weak for well-prepared caregivers.

Caregiver Role Strain

Globally, caregiving is traditionally considered a female role, and females appear to be better providers of social support for their elder family members than males (House, 1987). This is also true in Thailand (Chayovan & Knodel, 1997; Jitapunkul & Bunnag, 1997; Wongsith & Siriboon, 1999). The role and responsibilities of the caregiver are increased when the elder is ill or has a limited or complete inability to perform the activities of daily living (ADLs). In such cases, caregivers must devote a great deal of time and provide a high level of care for the elder, such as feeding, bathing, dressing, toileting, preparing medication, and taking the elder to appointments with physicians. The increased roles and responsibilities in these caregiving experiences, added to the traditional household activities and working outside the home, introduces a significant amount of emotional and psychological strain to the caregiver's life. The psychological consequences of role accumulation depend on the nature of the roles and one's experience within each role. Shouldering caregiving and other personal and social responsibilities (e.g., being a wife, a mother, an employee, etc.) will strongly impact a caregiver's life.

Family caregivers may experience minimal to extensive negative consequences from caregiving. The negative outcomes have been conceptualized in many ways by different research teams (Archbold & Stewart, 1986; Kramer & Kipnis, 1995; Montgomery, Gonyea, & Hooyman, 1985; Mui, 1992; Poulshock & Deimling, 1984; Robinson, 1983; Stephens & Kinney, 1989; Zarit, Reever, & Bach-Peterson, 1980). The terms used to describe the negative effects of caregiving are "burden," "stress" and "strain." These terms have been used interchangeably. "Stress" seems to be

widely used to describe the negative outcomes of caregiving. “Burden” emphasizes the subjective sense of the feeling more than the objective sense. Historically, burden has been defined in the sense that caregiving demands have overwhelmed the person’s emotional, physical, and financial resources used in providing assistance (Grad & Sainsbury, 1963). “Strain” is derived from role theory. Role strain is defined as experiencing difficulty in the performance or fulfillment of the caregiving role obligation (Goode, 1960). According to Mui (1992), the inability to complete role obligation within a prescribed amount of time is a significant source of role strain.

Archbold et al. (1990) conceptualized caregiver role strain as “the caregivers’ felt difficulty in performing the family caregiving role” (p. 376). Archbold and Stewart (1986) developed nine measures and adapted two measures from Montgomery and Borgatta to measure caregiver role strain. The total of 11 measures included: (a) strain from care activities, (b) strain from managed care, (c) strain from lack of resources, (d) strain from worry, (e) strain from role conflict, (f) strain from economic burden, (g) strain from mismatched expectation, (h) strain from increased tension, (i) strain from feelings of being manipulated, (j) strain from communication problems, and (k) global strain. Strain from increased tension and strain from feelings of being manipulated were adapted from Montgomery and Borgatta’s measures. Results showed that caregivers of post-hospitalized older persons who reported higher levels of mutuality and preparedness reported lower levels on some aspects of role strain.

Wirojratana (2002) used translated caregiver role strain measured in the Thai population and concluded that caregiver role strain measures were appropriate and relevant for Thai caregivers. Preparedness was inversely related to strain from care

activities ($r = -.41, p < .01$), lack of resources ($r = -.52, p < .01$), feelings of being manipulated ($r = -.29, p < .01$), increased tension ($r = -.36, p < .01$), and global strain ($r = -.57, p < .01$). Predictability was negatively related to all measures of caregiver role strain except strain from care activities and mismatch expectations. In addition, 10 of 11 caregiver role strain measures were highly negatively associated with caregiver's physical health, with correlations of $-.30$ to $-.40$.

Several studies have been conducted to examine the negative outcomes of caregiving in Thailand. Chaoum, Intarasombat, and Putwatana (1996) explored care burden, general well-being and coping resources and determined predictive factors of general well-being in family caregivers of hospitalized elders post-discharge. Results from 100 cases were analyzed. Care burden and duration of education were significant predictors of general well-being in family caregivers. Care burden was negatively correlated with general well-being ($r = -.40, p < .001$). Duration of education was positively correlated with general well-being ($r = .25, p < .05$). Care burden accounted for 16% of variance was the best predictor of general well-being.

The potential range of care burden scores in Chaoum and colleagues' study was 15 to 75, with higher scores meaning higher care burden. The care burden scores of this study had a moderate mean score ($M = 35, SD = 9.2$, with a range from 18.9 to 56.3). The researchers explained that high education and high income may have been good resources for caregivers to mediate the care burden. As expected, knowledge and education helped to improve caregiver appraisal about the caregiving situation. The researchers suggested that caregivers needed to develop their knowledge, skill, and

interpersonal relationship with the elders in order to succeed in taking care of the elders and themselves.

Using a sample of 80 caregivers, Tirapaiwong (1997) studied the burden of family caregivers for stroke patients using the quality of the patient-caregiver relationship, gender, duration of education and duration of care as the independent variables. Results demonstrated that: (a) caregivers reported a fairly low mean score on caregiver burden and fairly high quality of patient-caregiver relationships, and (b) the quality of patient-caregiver relationship was the best significant predictor of burden, accounting for 13% of the caregiver burden ($F_{(1,79)} = 11.44, p < .01$). In contrast to the study by Chaoum et al. (1996), Tirapaiwong did not find a correlation between education and caregiver burden.

Sirapo-ngam et al. (2000) were interested in the caregiving demands, stress and coping strategies of family caregivers of patients with cerebrovascular disease (CVA). The results of their study revealed that Thai caregivers reported a low level of stress from meeting the care needs of the physically dependent care receivers ($M = 0.57, SD = 0.68$, with a range from 0 to 3.5) and a low-to-moderate level of stress from dealing with the behavior problems of the patients ($M = 1.76, SD = 0.79$, with a range from 0.38 to 3.56).

In summary, research findings from three studies of Thai primary caregivers consistently showed low-to-moderate mean caregiver burden scores. This may be the result of filial responsibility toward dependent elderly family members in the Thai culture. Filial responsibility adds a positive quality to the relationships between caregiver and a care receiver. The positive quality of the relationship between a

caregiver and a care receiver and the concept of preparedness may be salient variables in explaining caregiver role strain.

The Nature of the Caregiving Role in the Hospital and Home

There is a growing body of literature on the complex nature of the caregiving role based on role theory. Symbolic interaction is used to describe the nature of the caregiving role regardless of settings. In order to understand caregiving during hospitalization, it is important to place it within the larger context of family caregiving. Much of the research on the nature of the caregiving role has addressed the topic of family caregiving at home (Archbold et al., 1990; Hasselkus, 1988, 1989; Schumacher, 1995; Schumacher, Stewart, Archbold, Dodd, & Dibble, 2000). Less attention has been paid to family caregiving during hospitalization.

A large number of the studies that address the nature of the caregiving role in the home have focused on the caregivers of patients with dementia, Alzheimer's disease, Parkinson's disease, and cancer because of the unique demands placed upon caregivers. Examples of such demands include: managing the behavioral symptoms related to dementia (Archbold et al., 1990, 1992; Archbold et al., 1995), assistance with mobility because of the slowness of movement in Parkinson's disease (Carter et al., 1993), and managing the side effects of chemotherapy in cancer patients (Schumacher et al., 2000). Yet little is known about the nature of the caregiving role in the hospital setting.

The Context of Caregiving

The context of caregiving in the hospital and in the home is different. Within the hospital setting, family caregivers play a supportive role. There are often important interactions among the patient, caregiver, and health care providers. A significant role of the caregiver is to provide emotional support to hospitalized elders during hospitalization (Halm & Titler, 1990; Laitinen, 1992, 1993). In contrast, family members are the primary responsible persons, providing most of the assistance and support the care receivers' need at home. The caregiving role is primarily created through interaction between the caregiver and the care recipient. Interactions between the dyad and other family members or home health care providers may also exist. From the existing literature in the U.S., there are similarities and differences between the nature of the caregiving role at home and the nature of the caregiving role in the hospital setting.

Family Participation

Expectations of family participation during hospitalization are different from family participation in the home setting. According to the symbolic interaction perspective, the value of family caregiving arise out of the social interactions that a caregiver has with the care recipient or interactions between the caregiving dyad and others over time (Burr et al., 1979). Family caregivers interact with others, take actions, or engage in a process in response to a caregiving situation during hospitalization and at home.

Caregivers may view the shift in their roles as primary care providers at home to supportive roles during hospitalization positively or negatively. According to

Hickey and Lewandowski (1988), some caregivers of critically ill elderly patients who routinely provide care for the elderly at home might view the supporting role as negative. They might feel that their help is not needed. In contrast, some caregivers might view the supporting role as positive because it can provide them with a form of respite (Haggmark, 1990; Hickey & Lewandowski, 1988). They can step back or take a break and let health care professionals take on the primary responsibility of the caregiving role.

However, family members are sometimes unable to perform any of the hospitalized elder's care—due to hospital policy or the elder's health status. Restricted visitation in the intensive care units limits opportunities to be supportive. Family members may also seek to increase their participation in patient care but are prevented from doing so by the health care professionals who do not want them at the bedside. Such a case might exist, for example, in critical care units where the elder's care needs are such that they require the assistance of health care professionals. In contrast, in step-down units or general geriatric units, nurses might wish to involve family members in patient care. In any case, the nature of the illness, the nature of the wards as well as the cultural context of caregiving are likely to influence the family caregiver's participation in providing health care.

Caregiving Role Acquisition

Transition of care is critical, but it has been given less attention in caregiving research (Li et al., 2000; Stewart, Archbold, Harvath, & Nkongho, 1993). Schumacher (1995) has conceptualized the caregiving role acquisition as “a family role transition in which the caregiving role is created by the caregiver and care receiver through the

process of role-making” (p. 214). Schumacher indicated that caregiver role acquisition occurs when illness causes a decline in an individual’s self-care ability, necessitating care by others. The functional status of hospitalized elders declines significantly during hospitalization when compared to prior to admission. This study might sensitize investigators to seek to understand caregiver role acquisition during hospitalization.

Stewart et al. (1993) stated that caregiver role acquisition occurs primarily after entering into the role. This phenomenon is encountered in clinical practice in both hospital and home care. For example, there are some cases in which hospitalization of the elder relative marks the beginning of the caregiver experience. In other cases, family members have experiences being caregivers for an elder before hospitalization. Stewart and colleagues indicated that the caregiver’s preparedness could enhance role acquisition. According to role theory, the degree and quality of role acquisition could lower the level of role strain (Burr et al., 1979).

A review of the caregiver role in the home setting described in the existing literature might help health care professionals to understand the way in which family caregivers learn the caregiving role during hospitalization and during the transition from hospital to home. The role acquisition may occur reflexively, through one’s thoughts, dialogue with self, and/or interaction with others (Burr et al., 1979). The acquisition of new knowledge and skills can be applied during hospitalization, a time in which families may experience a high need for information and assistance from health care professionals, especially during the discharge process and the period just following hospital discharge.

Partnerships

The partnerships between family caregivers and health care providers have been identified in the existing literature in the home and hospital settings. Family participation and sharing of information between family caregivers and providers were the major concerns reported by family caregivers (Von Eigen, Walker, Edgman-Levitan, Cleary, & Delbanco, 2000). Family members provided information about the elder during the admission process and hospitalization. At the same time, family members needed information and support from health care providers about the possibilities of taking part in care, as well as in the discharge planning process. They wanted health care providers to acknowledge them as having a significant role in the hospital and at discharge. However, viewing family caregivers as partners with the health care team is a new and critical issue during hospitalization (Li et al., 2000).

In the existing literature regarding caregiving at home, Harvath et al. (1994) developed the concept of local and cosmopolitan knowledge to create partnerships between families and gerontological nurses. One idea was to develop partnerships with family caregivers for health care for older people at home. The family's local knowledge is derived from experience in managing the older person's chronic illness and is embedded in the context of the family culture and relationships. In contrast, the nurse's cosmopolitan knowledge is derived from his or her educational background and experience in giving care to older adults and their families. In other words, local knowledge is the understanding and skills that the family brings to the caregiving situation, and cosmopolitan knowledge is the understanding and skills that the

gerontological nurse brings. The degree of blending of local and cosmopolitan knowledge can contribute to the caregiver's perception of preparedness.

Preparedness

The concept of preparedness, or "how well prepared the caregiver believes he or she is for the tasks and stress of the caregiving role" (Archbold et al., 1992, p. 328), has not been identified in the existing research for the hospital setting. As mentioned earlier, blending local and cosmopolitan knowledge can create the caregiver's perception of preparedness, thus enhancing role acquisition and reducing caregiver role strain.

Preparedness was a strong predictor of role strain 6 weeks following discharge (Archbold et al., 1990). Higher levels of preparedness were associated with lower levels of strain from direct care, tension, global strain, and strain from worry and lack of resources. Archbold and colleagues (1990) suggest that the best time for interventions designed to improve the caregiver's preparedness is during the 6 weeks following hospitalization, because the time following discharge may represent a vulnerable time of increased strain. Due to the shorter hospital stays, the concept of preparedness might start in the hospital, and nurses can have a significant role in identifying and evaluating patient and family preparedness.

Meaning of Caregiving

The meaning of the caregiving experiences, including visible (observable) and invisible (unobservable) behaviors, can be found in both the home and hospital settings. Based on symbolic interaction, meanings are created through the process of interaction between individuals and the influence of human behavior (Burr et al.,

1979). Within each unique situation, the meanings that a caregiver has formulated will influence his/her behavior. Hasselkus (1988, 1989) interviewed 15 family caregivers to determine the meaning of the caregiving activities at home and patterns of informal learning processes. Five themes of invisible behavior in caregiving situations emerged: (a) sense of self, (b) sense of managing, (c) sense of future, (d) sense of fear and risk, and (e) sense of change in role and responsibility. The three meanings of caregiving were: (a) getting things done, (b) achieving a sense of health and well-being for the care receiver, and (c) achieving a sense of health and well-being for the caregiver.

Schumacher et al. (2000) explored the concept of family caregiving skills at home. These researchers interviewed 30 patients receiving chemotherapy for cancer and 29 family caregivers. Family caregiving skill was defined as “the ability to engage effectively and smoothly in nine caregiving processes” (p. 199). The nine caregiving processes were identified as: monitoring, interpreting, making decisions, taking action, making adjustments, providing hands-on care, accessing resources, working together with the ill person, and negotiating the health care system. The three properties of family caregiving skill are: (a) blending of previously developed skills and newly developed skills for illness management; (b) integration of knowledge about the ill person, including important aspects of his or her identity, concerns, and personal history, with knowledge about the specifics of illness care; and (c) development over time and with experience.

Five themes of the meaning of the caregiving experience during hospitalization also emerged from a review of the existing literature: carrying on, modifying, starting new, sharing, and arranging care for patients (Li, 1996). Three content domains of

family care action in the hospital were identified: (a) providing care to the patient, (b) working together with the health care team, and (c) taking care of themselves (Li et al., 2000). The first domain can be found in a number of studies as visible behaviors. The second and third domains reflect the invisible or hidden behaviors of caregiving during hospitalization.

Based on the existing literature, the meaning of caregiving during hospitalization is connected to the meaning of caregiving at home. For example, the themes of sharing and arranging care for the patient during hospitalization still exist in terms of taking action, making adjustments, providing hands-on care, accessing resources, working together with the ill person, and negotiating the health care system in the home setting. The processes whereby caregivers interact and perceive meaningful experiences in their caregiving situation in the hospital and home settings are embedded in the caregiving context. Regardless of the setting, the ability and willingness of caregivers to take care of the elderly members are critical factors in family caregiving. The goal of family caregiving during hospitalization and at home is to improve the quality of care for the elder.

Family Participation during Hospitalization

Family members are still the main persons to provide care during hospitalization and following discharge. As previously noted, the ability and willingness of caregivers to participate in an older person's care are critical factors in family caregiving. Although family caregivers do continue their care for their elders in the hospital, only a small number of studies have focused on the caregivers' experiences during hospitalization. In the existing literature, what caregivers do to care

for their elders in the hospital has been conceptualized as family participation (Laitinen, 1992, 1993), family involvement (Collier & Schirm, 1992; Haggmark, 1990; Sharp, 1990), and the role of family during visitation (Halm & Titler, 1990).

Family caregiver's desires to be involved in the hospital care of older adults differ, and there may be differences in the expectations from staff regarding family participation in care provided to hospitalized elders. Based on role theory, caregivers fulfill their caregiving role based on cultural and social expectation. Therefore, the expectations for the caregiving role during hospitalization might also be different from one culture to another culture.

In Sweden, Haggmark (1990) explored the willingness of relatives to participate in cancer patient care in hospital and home settings. The researcher hypothesized that the presence of relatives might contribute to improvements in patient care. A case-control study was conducted with a sample of 31 caregivers of hospitalized oncology patients in the activation group and 36 caregivers in the comparison group (normal care). The relatives within the activation program received information about the ward environment during the first contact by ward staff, a pamphlet to encourage relatives to participate in the patient's care, free meals and refreshments if they stayed longer than 3 hours during the visits, and 2-hour evening meetings every three weeks to improve the information provided to relatives.

The aim of the activation program was to increase the frequency and duration of the visits and the willingness of relatives to participate in patient care in the hospital and to provide home care. A semistructured interview was used. The interviews were conducted twice during a 3-4 week period. The researchers found that no intervention

effect existed. At the time of the last interview, the relatives of patients receiving treatment in the comparison group and the activation group both visited the patient daily and stayed longer than 3 hours at each visit, however, the willingness to participate in care in both groups was minimal. Perhaps the schedule of meetings every 3 weeks was frequent enough. The ceiling effect of increasing the frequency and duration of visits should be noted, because at the beginning of the study, relatives demonstrated considerable visiting and staying with the patients.

The researcher stated that the willingness to participate in and care for the patient at home was difficult to interpret. Caregivers preferred to leave the patient in the hospital and to have the patient cared for by health care professionals. The severity of the patient's disease may have influenced the attitude of relatives toward caring for the patient at home. A total of 42 patients (22 in the activation group and 20 in the comparison group) experienced death during the study period. The study was specific to hospitalized oncology patients, and the types of relationships were that of spouse, children, parent, or friend. The age group of patients was not reported.

In Finland, Laitinen (1992) conducted a pilot study in three hospital settings— university hospital, geriatric units, and nursing homes— to investigate current family participation in the hospital care of elderly patients. A sample of 18 elderly patients and 7 informal caregivers was examined. Participants were asked to rate their participation in 18 ADLs during hospitalization. Results indicated that caregivers in all the settings participated minimally. Emotional support was most often provided with 26% of family caregivers offering daily emotional support.

In a second study, Laitinen (1993) specifically explored the type of ADLs the caregivers participated in and the extent to which they participated in the same three hospital settings. The same questionnaire about 18 ADLs was used with a sample of 75 elderly patients and 147 informal caregivers. Results of the study were based only on the responses from caregivers. The extent to which family members participated was different for each setting. In the university hospital, 30% of family caregivers gave daily emotional support; between 10 and 15 % of family caregivers helped hospitalized elders to eat, drink, stand up, sit, and get into bed. In the geriatric unit, 50% of family caregivers gave emotional support once a week, and less than one-third of caregivers helped elders to sit, exercise, stand up, get into bed and drink. In the nursing home, 23% of family caregivers gave emotional support at least once a week, and 11-18% helped the patient to eat, drink, sit or helped with skin care.

The results indicated that caregivers in the university hospital participated more in caregiving activities than did those in the geriatric unit or the nursing home. One possible explanation for this result might be the nature of care in the three settings. The results were consistent with the first study in that caregivers gave mostly emotional support. However, the findings should be interpreted cautiously in that self-reports of the perception of the caregiver might be underestimated or overestimated. Objective reports from others (e.g., nurses) would be important to verify the results.

Laitinen and Isola (1996) used a qualitative approach with 369 informal caregivers to identify factors that promote or inhibit family participation in the care of hospitalized elders. Results showed that caregivers needed emotional support from nurses to promote participation. A lack of communication was a significant factor in

limiting informal caregivers' participation in care. Caregivers needed better communication and discussion about the patients' care needs. Results supported the interaction between family caregivers and nurses, and these findings sensitized nurses to the need for caregivers to have relevant information in order to increase their participation in caregiving.

In the U.S., Sharp (1990) examined the extent to which relatives were involved in ADL care with 74 nurses and 64 caregivers of the elderly mentally ill. The researcher believed that involvement of relatives in patient care was associated with good nursing practice. Relatives' and nurses' perspectives were examined and compared with five ADLs that currently involved relatives in patient care: feeding, washing, toileting, dressing, and bathing. Feeding was the most common ADL in which family members were involved. These findings indicate that the majority of nursing staff would like to involve relatives, but relatives express satisfaction with a minimal role in patient care. The findings might be different in other caregiving situations, especially in different cultures. However, findings were limited to the care of the elderly mentally ill, so the nature of an elder's illness might influence the extent of the relative's involvement in patient care.

In a descriptive survey, Halm and Titler (1990) investigated four groups of 77 critically ill patients, 58 family members, 81 nurses, and 8 physicians for their attitudes toward visiting in critical care wards. Their findings indicated that the role of family during visitation was congruent among the four groups. Caregiving activities during visitation included providing emotional support, helping patients eat, and giving the patients a back rub or bath.

The most significant difference among the four groups was the participation in physical care during visits ($F = 35.47, p < .01$). The desire for family members to participate in physical care was stronger among patients than it was for family members or nurses ($M_{\text{patients}} = 3.73$; $M_{\text{nurses}} = 2.70$; $M_{\text{family members}} = 2.58$). Higher mean scores indicated greater interest in performing physical care. In addition, the importance and level of satisfaction of visiting needs were incongruent among four groups. Patients wanted their family members to visit frequently, whereas nurses and physicians did not view unlimited visits as important to the critically ill patients. Patients acknowledged that family members should have significant roles during hospitalization, i.e. providing company and care.

Collier and Schirm (1992) conducted a retrospective study comparing patient records with interview data from 60 nurses to describe family care action in the acute care setting from admission to discharge. Results indicated that family involvement was scarce and that the written records understated the extent of family involvement. Nurses reported that they participated in interactions with families during the hospital stay as follows: (a) evaluated present and future abilities of family caregivers, (b) assessed family needs, (c) informed family members of what was going on, and (d) taught them about care provision and discharge planning. In their study, nurses identified two types of families who did not want to be involved in care: (a) families whose members were unwilling or undesirable caregivers (i.e., families who wanted elders placed in long-term care), and (b) families whose members were willing to be involved but unavailable or incapable (i.e., families who lived outside the geographic area or who had excessive work and family responsibilities).

One hospital's innovative successful strategy for involving patients and families in care decisions was used in a study by Power, Goldstein, Plank, Thomas, and Conkright (2000). A pilot program named "plan-of-care sessions" was developed to involve patients and families in care decisions. The aim was to ensure that nurses involved patients and families and respected their health care decisions. The guidelines included communicating with the patient about the plan of care for the shift and asking the patient and family if they had any questions or wanted to make any changes in the plan of care.

A preliminary finding suggests that the program was very successful in enhancing collaboration and communication among family and nurses during hospitalization. Results were generalized to all patients in the hospital setting and were not specific for the hospitalized elders. The effectiveness of family participation was evident, and the relationship among patient, family, and nurse was strengthened.

In a recent study, Li et al. (2000) introduced a new concept by viewing family caregivers as partners with the health care team. The results specifically captured the nature of the caregiving role during hospitalization. Three dimensions of family care for hospitalized elders were identified as family members: (a) providing care to the patients, (b) working together with health care providers, and (c) taking care of themselves. The three dimensions were derived from 6 family caregivers, 6 elderly patients, and 4 nurses. The nature of the caregiving role in the hospital, based on Li and colleagues' study, was examined in this study. The nature of the caregiving role during hospitalization may well influence the nature of the caregiving role at home.

Family Participation in Thailand

The concept of family participation exists in the Thai culture. Researchers have conducted intervention studies related to the effects of family participation during hospitalization on patients' and families' outcomes. Orem's nursing theory was used as a guide in these intervention studies. An assumption underlying the intervention is that family participation can improve patients' functioning and increase patients' and families' satisfaction in nursing care.

Arnantapunpong (1995) conducted a quasi-experimental study with 60 caregiving dyads admitted to medical wards. The purpose of the study was to test the effects of family participation in caring for hospitalized elders on patient recovery and family satisfaction with nursing care. The intervention was designed to create interpersonal relationship among the patients, family members, and nurses in the hospital. In the experimental group, nurses evaluated and set up a mutual care plan with the patients and their family members, informed them of what was going on and how to take care of the patients in the hospital, and encouraged them to provide care for the patients during hospitalization. Statistically significant differences were found in patients' mental status ($p < .05$) and family satisfaction ($p < .01$) between the experimental and the control groups. Higher family participation was associated with more family satisfaction with nursing care during hospitalization. However, no significant difference was found in patients' functional status and duration of hospitalization. Results revealed that family members could learn how to take care of elders and apply this knowledge to improve their caregiving skills; this enabled them to provide care and promote well-being for the patients.

Yamvong (1995) conducted an intervention with 60 hospitalized elders admitted to medical wards and their caregivers. The intervention was designed to involve elders and families in care decisions after the elder's admission. The intervention included a comprehensive discharge plan that involved the elders and their family members in a care plan. The outcome variables were patient and family satisfaction with nursing care during hospitalization. These findings supported that family participation increased patient and family satisfaction with nursing care. The researcher believed that the more patients and caregivers were satisfied with nursing care, the more patients and caregivers were compliant with care. However, the study did not measure the extent of family participation during hospitalization or whether or not caregivers felt strain with family participation during hospitalization.

Intarasombat, Sirapo-ngam, Chansirikarn, Yamvong, and Mahakayanun (1996) conducted a quasi-experimental study with 60 dyads divided into two equal experimental and control groups. Intervention included employing the guidelines to create an interpersonal relationship among caregiving dyads and health care professionals by involving patients and families in care and care decision to develop the ability for self-care. Statistically significant differences were found in patient functional status, patient well-being and patient and family caregiver satisfaction between the experimental and control groups at discharge. However, no differences were found in patient complications and length of stay between the two groups. A larger sample size might be needed to capture the beneficial effect on patient complications. These findings were consistent with Arnantapunpong's (1995) and

Yamvong's (1995) studies in that family participation influenced patient and family caregiver satisfaction with nursing care.

Saenmanoch (1998) conducted a quasi-experimental study with 40 dyads to evaluate the effects of promoting caregiver participation in caring for elderly patients with fractured hips on postoperative recovery. Interpersonal relationships among the patients, family members, and nurses were developed to evaluate family networks, family needs while participating in care and patient self-care deficit. Nurses informed and educated the families about how to take care of the patients and created a hospital environment for family members to improve their caregiving skills. The intervention group exhibited significant improvement in patient ADLs, lower caregiver anxiety, as well as higher patient and caregiver satisfaction than the control group. These findings supported that family participation improves patient functioning, decreases caregiver anxiety, and increases patient and caregiver satisfaction. Results were specific to caregivers of hip fracture patients, and were consistent with the other three studies conducted in Thailand.

Results from previous studies are consistent in that family participation was one of the important concepts in caregiving by family members during hospitalization. Yet, there are inconsistencies with family participation during hospitalization. The desire of family members to get involved in the care of hospitalized older adults differs among caregivers, as do the expectations of hospital staff regarding participation. Family participation was described in the literature as a family caregiver's ability and willingness to participate in care. Sharp (1990) suggested that some caregivers do not want to become involved in hospital care and should not be

forced to participate more than they would like to or are able to. Li (1996) also states that a caregiver's preferences to participate or not participate in caregiving should be considered during hospitalization. The extent to which they participate (e.g., frequency and type of care) should be considered as well.

The expectation from staff and family caregivers regarding participation may also differ between cultures. In Thai culture the expectation of family members to take care of elderly family members based on the value of *katunyu katavedi* is very strong, especially when the elders get sick or are admitted to the hospital. Caregivers are willing to provide care during hospitalization, and health care professionals encourage family caregivers to do so. Conversely, the elderly members expect to receive help and support from their family member.

The extent of family care actions in the hospital might lead health care providers to provide comprehensive family care in the hospital as well as improve the way they work with families in the hospital setting. The emotional costs of family participation must be described, especially for the older adult caregivers. In doing so, the strain of providing care in the hospital should be measured. The family care actions that caregivers perform and the strain they experience as a result of family care actions during hospitalization may help researchers to understand and support the roles that caregivers assume during hospitalization and the transition period from hospital to home.

Although the concept of family participation during hospitalization has been acknowledged in the Thai culture, the outcomes have been limited to patient and caregiver satisfaction with nursing care during hospitalization. Studies examining the

influence of family participation on strain associated with family participation in the hospital and caregiver role strain at home represent a gap in the existing literature. Caregivers might perceive family participation in the hospital as negative or positive, and family participation in the hospital might be associated with caregiver role strain at home. Family participation has not been related to other variables related to patients and their family members during hospitalization (i.e., mutuality, preparedness). Mutuality and preparedness might influence the extent to which family members participate in hospital care. In addition, tools to measure family participation during hospitalization are not available in Thai culture.

Because the studies to date have been retrospective, tools measuring the extent of family participation have been limited, and records may have understated the extent of family participation in the care of hospitalized elderly, a gap exists in the literature. The written records focused on the individual patient with no mention of family caregivers (Collier & Schirm, 1992; Laitinen, 1992, 1993). The current study will examine the relationship between caregiving in the hospital and caregiver role strain at home.

Measurement of Family Care Actions in the Hospital

Li and Stewart (2000) developed the Family Care Actions Index (FCAI) for the assessment of family care actions in the hospital setting. Family care action was defined as “what family members say or do to help an older relative in the hospital” (Li et al., 2000, p.7). The index was derived inductively from a qualitative study with caregivers for hospitalized elders in the U.S. (Li, 1996; Li et al., 2000). Researchers used Lofland and Lofland’s (1984, 1995, as cited in Li et al., 2000) qualitative

approach to develop a conceptual model of the phenomenon of family care in the hospital setting. The sample of 16 participants consisted of 6 family caregivers, 6 hospitalized elders, and 4 nurses. Twenty-five interviews and three participant observations were performed to explore family care in the hospital before discharge to home. Transcribed interviews and participant observation notes were analyzed for family care actions. Three major content domains and eight categories emerged. The three dimensions of family care actions included: (a) providing care to the patients, (b) working together with the health care team, and (c) taking care of self. Four categories were found within providing care to the patient: (a) being there, (b) performing typical family functions in the hospital, (c) providing passage between home and hospital, and (d) attending to the patient's personal care needs. Four categories were also found within working together with the health care team: (a) exchange of information between the family and the health care team, (b) collaborating with the health care team to provide personal care, (c) participating in the therapeutic health care regimens, and (d) making sure the health care team takes care of the patient's needs. No categories emerged within taking care of self.

Only the dimension of providing care to patients has been studied in the existing literature during hospitalization (Collier & Schirm, 1992; Haggmark, 1990; Laitinen, 1992, 1993). In addition, some categories within the dimension of providing care to patients have not been emphasized as categories of family care, including performing family functions in the hospital and providing passage between home and hospital. The other two dimensions—working together with health professionals and taking care of self—are new, and reflect the invisible behaviors that are part of

providing care in the hospital. Li et al. (2000) hypothesized that the successful family care of hospitalized elders needs to have all three dimensions of family care actions. Based on their qualitative study, the Family Care Actions Index (FCAI) was developed to measure the three dimensions and eight categories of family care actions in the hospital setting.

Description of the FCAI

The initial 130-item version of the FCAI was derived from a preliminary qualitative research study that focused on hospitalized elders, family members, and nurses in a hospital setting. It was reviewed by a group of 10 gerontological nursing experts for its content validity. The index was shortened to 85 items following this review, and was administered as a pre-test to two convenience samples of 30 and 40 family caregivers of hospitalized elders in the U.S. The index was further shortened to an 81-item checklist, which is the current version of the FCAI utilized in the current study.

The FCAI is self-administered in a paper-and-pencil format. It is given to the family caregivers by the investigator. The questionnaire is comprised of an 81-item checklist with an open-ended question at the end. The 81-item checklist asks about items that family caregivers are likely to encounter on a day-to-day basis in the hospital. The open-ended question asks about other things that the caregiver has done for his or her relative in the hospital.

The FCAI is comprised of two parts. The aim of Part A (70 items) is to measure what family caregivers say or do for their hospitalized elders during admission and hospitalization. The aim of Part B (11 items) is to measure what family

caregivers say or do during the process of discharge. The 81 items cover the three dimensions and eight categories that emerged from the qualitative study. The three dimensions consist of: (a) providing care to patients (44 items), (b) working together with the health care team (32 items), and (c) taking care of self (5 items). The items were divided based on the eight categories: (a) being there (3 items), (b) performing typical family functions in the hospital (14 items), (c) providing passage between home and hospital (10 items), (d) attending to the patient's personal care (17 items), (e) exchange of information between the family and health care team (14 items), (f) collaborating with the health care team to provide personal care (4 items), (g) participating in therapeutic health care regimens (8 items), and (h) making sure the health care team takes care of the patient's needs (5 items).

By adding the number of tasks performed that were checked on the 81-item checklist, a total score is obtained; therefore, scores can range from 0 to 81. The total FCAI score determines the extent to which family caregivers provide family care actions for their relatives. A higher score means a higher level of family participation in care. The FCAI also shows which items most family caregivers do or help with during the hospital stay of elderly relatives. The open-ended question at the end of the checklist identifies any areas of family care actions that may be missed by the 81-item checklist.

Psychometric Properties of the FCAI

The FCAI scale has been psychometrically tested with the two convenience samples of 30 and 40 family caregivers of hospitalized elders. Reliability can be used to determine internal consistency. Cronbach's alpha was .92 and .93. Each of the three

dimensions of family care actions were evaluated for internal consistency: (a) providing care to patients (44 items, $\alpha = .90$), (b) working together with the health care team (32 items, $\alpha = .83$), and (c) taking care of self (5 items, $\alpha = .65$). Construct validity was tested by examining the correlations between the FCAI scale and two variables: mutuality between caregiver and care receiver, and encouragement from health care staff to participate in care. Family care actions were positively associated with higher levels of mutuality ($r = .36, p < .05$) and encouragement from health care staff to participate in care ($r = .50, p = .05$) (Li et al., 2002).

Strengths and Limitations of the FCAI

The major strengths of the FCAI include:

1. The index reflects adequate reliability and validity for use in the hospital setting.
2. Each item is grounded from a qualitative study
3. The index is designed to capture the entire caregiving situation during hospitalization and discharge.
4. The construct validity in relation to the conceptual framework during hospitalization is established.

Limitations for the measures are the following:

1. The 81-item checklist, in a self-report questionnaire format, might be too lengthy for elderly caregivers.
2. The sample size that was used to test reliability and validity was small (70 family caregivers, compared with the total of the 81-item checklist).

Although adequate reliability and validity were found using the 81-item version in the U.S., the measure still needs further testing for reliability and validity in other cultures. The purpose of the current study is to establish the psychometric properties of the FCAI in the Thai population.

The extent of family care actions is only one part of the nature of the caregiving role in the hospital. The strain associated with performing family care actions in the hospital also needs to be measured. The extent of family care actions and strain associated with those actions in the hospital might influence the nature of caregiving at home and/or be associated with strain as well.

Family Care Actions Index Strain (FCAI Strain)

The ability and willingness to participate in family care actions are viewed as family participation. The nature of the elder's illness and/or the nature of the hospital unit might contribute to family participation. The preference for participation or non-participation and the frequency of each action also needs to be considered. Family members who do not want to participate or to get involved in hospital care should not be forced to do so. Family members might feel strain in performing family care actions in the hospital. Strain from family care actions in the hospital needs to be identified as an emotional cost involved in providing care in the hospital.

Family Care Actions Index Strain (FCAI Strain) has been created by this investigator to measure strain based on eight categories in the FCAI. Strain was represented by asking the caregiver how hard it is to provide care in eight categories.

One item was added to ask how hard it is to take care of self. Taking care of self is one of the three subscales, but the only one that is not subdivided into categories. The other two subscales are subdivided into four categories each. A total of nine areas were measured: (a) being there, (b) performing typical family functions in the hospital, (d) providing passage between home and hospital, (e) attending to the patient's personal care needs, (e) exchange of information between the family and the health care team, (f) collaborating with the health care team to provide personal care, (g) participating in the therapeutic health care regimens, (h) making sure the health care team takes care of the patient's needs, and (i) taking care of self.

A strain measure based on these nine areas may be the best way to study the strain family caregivers experience as a result of these actions in the hospital. Strain from family care actions in the hospital might also be associated with caregiver role strain at home. The correlation between strain in the hospital and strain at home could help health care professionals to understand the caregiving experience between hospital and home.

Summary

A need exists for health care providers to understand and support the roles that family members assume during hospitalization and during the transition period from hospital to home. The FCAI, which measures the amount of family care actions, and the FCAI Strain related to family care actions during hospitalization, has never been tested in the Thai population. This study is the first to determine the psychometric properties of the FCAI's use in Thai culture.

Family care actions during hospitalization might enhance preparedness, and then preparedness could bridge the caregiving experience between the hospital and home settings. The literature reviews indicated that preparedness for home care reduces strain. However, little is known about the strain from providing care during hospitalization and during the transition from hospital to home. Preparedness might have a moderating effect on the relationship between caregiving in the hospital and at home. It may be that the caregivers who feel well-prepared perform more family care actions in the hospital and experience lower caregiver role strain at home. Those who feel less prepared perform more family care actions in the hospital and yet experience higher caregiver role strain at home.

Preliminary Work

Master's Thesis Work

The investigator conducted a descriptive pilot study to determine the reliability of a Thai translation of the Zarit Burden Interview (TZBI) and predictive factors of caregiver burden with a sample of 33 Thai caregivers at Ramathibodi Hospital. The sample consisted of 33 caregivers who were providing care at home for an elder with a hip fracture. Data was collected at 2 weeks after hospital discharge over a 3-month period. The participation rate was approximately 95%. The reliability coefficient alpha was 0.88. Significant predictors of caregiver burden—patient age and type of hip fracture—account for 39.6% of the variance in the burden score (Monkong, 1999).

Current study

Measures of family participation in care in the hospital are scarce. The aim of this study is to determine the reliability and validity of Thai measures of family care

actions. The current study also investigates the relationship among key concepts: (a) family participation during hospitalization, (b) strain from family participation, (c) preparedness, and (d) caregiving outcomes at home (e.g., caregiver role strain from care activities, worry, global strain). It is hypothesized that the amount and type of family participation could influence how prepared caregivers are to provide care to an older person recently discharged from the hospital, and that preparedness could lower caregiver role strain at home.

Purpose

Specific Aims

The purpose of this study is to establish the validity and reliability of an instrument to measure family care actions in hospital care using a sample of Thai family caregivers of hospitalized elders. The specific aims of the study are to:

1. Obtain initial evidence supporting the content validity of the Thai version of the FCAI;
2. Examine the construct validity of the Thai FCAI;
3. Examine item analysis of the Thai FCAI and the FCAI Strain;
4. Obtain internal consistency reliability of the FCAI Strain and criterion scales used in the study: mutuality, preparedness, caregiver role strain from care activities, worry, and global strain; and
5. Examine the criterion validity of the Thai FCAI and the FCAI Strain in two areas: (a) concurrent validity with mutuality and preparedness, and (b) predictive validity with caregiver role strain from direct care, strain from worry, and global strain.

Three hypotheses are examined as follows:

1. Higher levels of mutuality will be associated with more participation in and less strain from family care actions during a hospital stay.
2. Higher levels of preparedness will be associated with more participation in and less strain from family care actions during a hospital stay.
3. Lower levels of family care actions and less strain from family care actions during hospital stay will be associated with lower levels of caregiver role strain from care activities, worry, and global strain two weeks following discharge.

Research Questions

After determining that the Thai FCAI is appropriate for use in the Thai culture, this study will explore the relationships between caregiving in the hospital and home settings. Two questions will be asked:

1. Are there relationships between the amount of family care actions, strain from care actions, and caregiver characteristics?
2. Does preparedness act as a moderator of the effect of the amount of family care actions and strain from care actions on caregiver role strain from care activities, worry, and global strain at 2 weeks post discharge?

CHAPTER 3

RESEARCH DESIGN AND METHODS

The purpose of this study was to establish the psychometric properties of the Family Care Actions Index (FCAI) in the Thai population and to examine the relationship between the Thai FCAI, FCAI Strain and caregiver characteristics. Caregiver characteristics included age, gender, and the type of relationship between a caregiver and an elder. In addition, the role of preparedness as a moderator of the effect of the Thai FCAI and FCAI Strain on caregiver role strain from care activities, worry, and global strain 2 weeks post discharge was tested.

The study was conducted in two phases. Phase I included: (a) the translation and back translation of the FCAI, and (b) the evaluation of content and construct validity by a panel of experts. The processes of translating the instrument to Thai and then back translating it to English were the first steps to verify the equivalence in meaning of the FCAI items in both languages. The translation and back translation were conducted in the U.S. The evaluation of content and construct validity by Thai experts was conducted in Thailand. Phase II included data collection in Thailand to: (a) conduct an item analysis of the Thai FCAI; (b) estimate reliability of FCAI Strain and criterion validity of the Thai FCAI and FCAI Strain; (c) examine the relationship between the Thai FCAI, FCAI Strain, and caregiver characteristics; and (d) test preparedness as a moderator of the effect of the Thai FCAI and FCAI Strain on caregiver role strain from care activities, worry, and global strain 2 weeks post discharge. The following sections describe each phase in greater detail.

Phase I:

The Translation and Back-Translation Process for the Thai FCAI

The most common strategy for verifying the translation of an instrument is back translation (Jones, 1987). Back translation is an important prerequisite for ensuring linguistic and cultural equivalence (Werner & Campbell, 1970). Equivalence of concepts under investigation between the translated and original versions of the FCAI is an important issue that must be addressed before establishing the psychometric tests of the questionnaire and determining the relationships among conceptual variables. The concepts used, based on the questionnaire, should agree in both cultural groups. Jones (1987) stated that the goal of the study is key to choosing which procedures to use when translating the questionnaire. The goal of the present study was to establish the equivalence of the meanings of the items in the English and Thai questionnaires and then to examine the relationship between the Thai version of the questionnaire and related variables in the conceptual model of the study. Dr. Hong Li, who developed the 81-item FCAI, granted permission for it to be used with this study (see Appendix A).

Figure II illustrates the process of translation and back translation and the determination of content validity of the Thai FCAI. The four steps were: (a) translating the FCAI from English to Thai, (b) back-translating the FCAI from Thai to English, (c) verifying the English version and back-translated version by dissertation committees, and (d) determining content validity in Thailand.

The first step was the translation of the entire FCAI into the Thai language. Three bilingual doctoral students in gerontological nursing at Oregon Health &

Science University (one of whom was the investigator) independently translated the FCAI. Each of the three translators was born in Thailand and had studied in the U.S. from four to seven years. Two had graduated with a Master's degrees in the U.S., and one, a Master's degree in Thailand. The investigator compared the three translations of the FCAI and selected the words that best represented the equivalence of concepts in English and Thai for each item.

The second step was back translation of the FCAI from Thai to English. Two bilingual persons, neither affiliated with the first translation group, independently back-translated the Thai FCAI into English. The first translator was born in Thailand and has been studying in the U.S. for seven years. She has a Master's degree and is pursuing a doctoral degree in nursing. The second translator was a linguist who is an expert in both English and Thai. She is not a nurse; nor is she familiar with the hospital setting. She was born in Thailand and has studied in a doctoral program in linguistics in the U.S. for five years. Neither of these translators had previously viewed the English version of the FCAI.

The third step in developing a Thai FCAI for use with this study was comparing and verifying the back-translated FCAI with the original English version by three dissertation committee members and examination of Thai nursing research literature and books. The FCAI was modified based on the dissertation committee's recommendations, and the final English version was presented to Dr. Hong Li, the researcher who developed the FCAI, to inform her of changes made. The content validity of the Thai version of the FCAI was tested in the last step as described below.

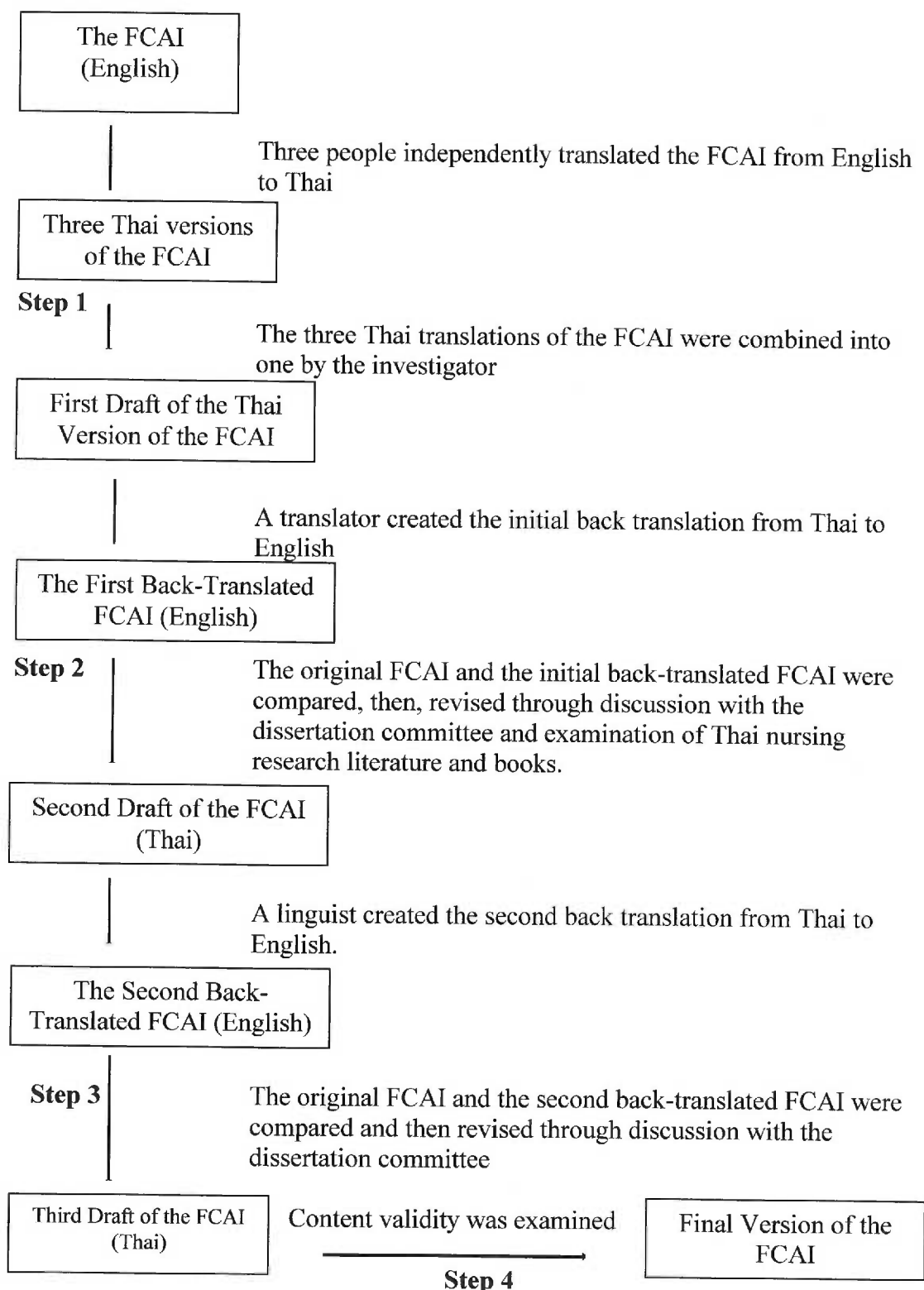


Figure 2. Procedure of Translation, Back Translation, and Examination of Content Validity of the Thai FCAI

Aim 1: Evaluation of Content Validity by Experts

According to Nunnally (1978), content validity is concerned with the adequacy of what an instrument purports to measure. Content validity is based on a subjective judgment about whether the items in the instrument adequately represent all dimensions of the area of interest (Allen & Yen, 2002; Polit & Hungler, 1999). Although no objective procedure can be used to ensure the adequacy of content coverage of an instrument, three criteria can be used to evaluate content validity of the instrument: relevance, comprehensiveness, and clarity.

Relevance

Content validity of the items in the Thai FCAI was refined and tested using a sample of 12 people. The sample consisted of: Thai nurse researchers with expertise in gerontological nursing ($n = 3$), Thai nurses who were employed in units routinely caring for elderly patients ($n = 3$), and Thai family caregivers of hospitalized elders ($n = 6$). The nurses and nurse researchers were identified through the investigator's personal network. These nurses identified family caregivers to assist in determining content validity.

A content validity index (CVI) can be used as an objective index to estimate the extent of agreement across experts of the relevance of items (Waltz, Strickland, & Lenz, 1991). Experts rate each item on a 4-point scale: 1 = *not relevant*, 2 = *somewhat relevant*, 3 = *quite relevant*, and 4 = *very relevant*. The CVI score is calculated by the number of quite relevant or very relevant ratings divided by the total number of experts rating each item. A CVI score of .80 or better is acceptable.

In this study, the rating score for the CVI was modified by the investigator to use a 3-point scale for ease of use and clarity: 1 = *not at all*, 2 = *somewhat relevant*, and 3 = *very relevant*. The values of somewhat relevant or very relevant were used in the numerator of the CVI. A score of 0.70 or better was interpreted as good content validity for that item. For an item to achieve a value of .70, 9 of 12 reviewers had to score it as somewhat or very relevant.

Appropriateness

Items needed to be appropriate to Thai culture and caregiving contexts in Thai hospital settings. All 12 reviewers were asked to identify items thought to be adapted for cultural appropriateness and/or caregiving contexts in Thai hospital settings. Based on reviewer suggestions, some items were modified.

Redundancy

Redundancy of the items in the Thai FCAI was tested using a sample of people, the same six family caregivers who evaluated content validity of the Thai FCAI. They were individually asked to identify items thought to be redundant. If an item was rated as redundant with another item in the scale, that item was identified for possible deletion.

Comprehensiveness and Clarity

Comprehensiveness and clarity of items retained in the scale were tested with a new group of 9 family caregivers: 3 from medical units, 3 from surgical units, and 3 from orthopedic unit. The aim was to ensure the comprehensiveness of individual items and clarity for the target population.

Aim 2: Evaluation of Construct Validity by Experts

Construct validity is concerned with the degree to which the items measure the underlying attribute of an instrument (Mertens, 1998; Polit & Hungler, 1999). To examine construct validity for this current study, 6 reviewers, including 3 nurse researchers and 3 nurses with expertise in gerontological nursing, were asked to independently sort the items into three hypothetical constructs of the FCAI: (a) providing care to the patients, (b) working together with health care providers, (c) taking care of self. The reviewers were also allowed to place items in a “don’t know” or “unsure” category. The items were accepted as having good construct validity if 4 of the 6 reviewers sorted the items into the category that agreed with the hypothesized constructs of the FCAI. Items not sorted into the hypothesized constructs were noted, and this information was used in conjunction with the item analysis to identify items for deletion.

Phase II: Methods

Design

A descriptive, correlational study design was used to determine the relationships between the amount of family care actions (FCAI), strain from family care actions (FCAI Strain), preparedness for caregiving at home, mutuality in the hospital, and caregiver role strain 2 weeks post discharge. Three interviews were conducted with each family caregiver. The first interview was conducted in the hospital and included questions to determine the amount of family care actions (FCAI) and strain from family care actions (FCAI Strain), preparedness for caregiving at home, and mutuality in the hospital. The second interview was conducted by phone.

The caregivers were asked about the amount of family care action on the day of discharge. The third interview was conducted at the outpatient clinics and included questions about caregiver role strain from care activities, worry, and global strain 2 weeks post discharge.

Setting

Ramathibodi Hospital (RH) is a 1200-bed, urban university hospital located in Bangkok, the capital city of Thailand. RH is regarded as one of the best medical facilities in Thailand providing teaching and training to health professionals and is also well known as a research facility. The hospital is a tertiary care facility offering a full range of medical and surgical services to acutely ill patients ranging from newborns to the elderly.

Eight patient care units were contacted: four with surgical patients, three with medical patients and one with orthopedic patients. The number of beds in the units varied from 30-40. The health care team included physicians, registered nurses, and practical nurses. The nurses, and the number of persons in each team varied from unit to unit, ranging from 1-3 physicians, 10-15 registered nurses and 12-18 practical nurses.

Institutional Review Board (IRB) Procedures

Informed consent procedures were followed to protect the rights of the elders and their caregivers who participated in this study. The Institutional Review Board (IRB) at Oregon Health & Science University (OHSU) approved the research proposal and informed consent methods prior to contacts being made with any prospective subjects (see Appendix B). Permission to conduct the study was also granted by the

Human Subject Review Committee, Ramathibodi Hospital (RH), Mahidol University, Thailand (see Appendix C). However, the Human Subject Review Committee at Ramathibodi Hospital had their own consent format. The investigator had to follow RH format and seek agreement from the OHSU IRB. The consent form based on the RH format was evaluated and approved by the Human Subject Review Committee at RH and the OHSU IRB (see Appendix D). Data for the study were collected from November 2002 to February 2003.

Sample

The target sample size of 220 caregivers was based on an attempt to meet a target of 5 subjects per item for the largest subscale of the FCAI—"providing care to the patients"—which had 44 items. According to RH statistics in 2001, 2,592 elderly patients were admitted to medical units, 2,563 were admitted to surgical units, and 609 were admitted to orthopedic units (Ramathibodi Statistical Office, 2002). Consequently, establishing a sample of 220 caregivers over a 4-month period appeared to be feasible.

Caregivers who had taken care of hospitalized elders and then provided care after discharge home were interviewed. An effort was made to include who was hospitalized with different medical diagnoses and variations in self-care ability during hospitalization. The hospitalized elders met the following criteria: (a) were 60 years old or older; (b) were admitted to selected surgical units, medical units, or orthopedic units; (c) had a hospital stay of at least 2 days; (d) planned to discharge from the hospital to home within 24-36 hours at the time of the first interview; and (e) had at

least one functional limitation (e.g., eating, bathing, dressing, walking, or toileting) at the time of hospital discharge.

Elders admitted to private medical, surgical or orthopedic were excluded from the study sample. In the private units, hospitalized elders are required to have family caregivers stay with them. The general units had a visitation time from 11 a.m. to 8 p.m. and did not allow family caregivers to stay with the elderly patients overnight. Hence, family participation in care in the general units is optional and is likely to vary from one family to another. Elders who were admitted to the hospital more than once during the 4-month period of data collection were only invited to participate once.

Inclusion criteria for the caregivers included: (a) being willing to participate in the study, (b) being at least age 18 years old, (c) visiting the patient at least twice during the current hospitalization, (d) being able to respond to the interview questions in the Thai language, and (e) being reachable by phone after discharge. Living with the elder was not a requirement of the study.

Procedures for Recruitment

Data were obtained from patient records and interviews from a convenience sample of 220 caregivers who agreed to participate in the study. The charge nurses in the selected nursing units identified those hospitalized elders who met the inclusion criteria and invited them to participate in the study. The investigator provided the information sheet about the study for the chart nurses to make a contact with the potential elders (see Appendix E). If an elder expressed an interest in participating, the

investigator contacted the elder directly. The investigator asked each elder for permission to review his/her medical records and to contact his/her caregiver(s). If consent was given, the investigator then contacted the elder's family in person.

While the elder was still in the hospital, the investigator provided the family caregiver with a description of the study. The caregiver was then invited to participate; those who agreed, signed a consent form, agreeing to complete three structured interviews. Hospitalized elders who were cognitively impaired were also included in the study. The caregivers of cognitively impaired elders or elders with temporary cognitive impairment due to the stress of illness and/or hospitalization were named or identified by the nursing staff on the ward. To protect the elder's rights, proxy consent was obtained from the caregivers. Therefore, either the elder or a nurse identified the family caregiver as the person who assisted and provided care for the hospitalized elder during hospitalization and who cared for the elder most after the elder returned home.

While in the hospital the investigator scheduled three interviews with the caregiver: one in person in the hospital; a follow-up interview by telephone the day after discharge; and an in-person interview at an outpatient clinic two weeks post discharge. The first interview took place 24-36 hours before hospital discharge. The investigator read each item in the questionnaire to the caregiver. It averaged between 30 minutes and 1 hours in length and elicited demographic data and information about the amount of family care actions performed in the hospital (FCAI part A), strain from family care actions (FCAI Strain), preparedness for caregiving at home, and mutuality. The discharge for three elders was delayed; the investigator conducted the interview

once again 24-36 hours before their eventual hospital discharge. The investigator attempted to re-collect the data only one time.

A follow-up telephone call to each caregiver was completed 24- 36 hours after the elder was discharged. The questions in FCAI part B, focusing on the amount of family care actions at discharge were asked. This second interview lasted approximately 10-15 minutes.

The third interview was completed at an outpatient clinic when the family caregiver took the patient in for a follow-up appointment approximately 2 weeks post discharge. The follow-up interview ranged from 10-16 days after discharge. The nurses in the research ward informed the investigator when the elders were back for follow-up at outpatient clinics. The third interview averaged 45-60 minutes in length; the caregiver was asked for information about three aspects of caregiver role strain at home: strain from care activities, strain from worry, and global strain.

For the third interview, the investigator allowed the participants to choose between completing the questionnaire in the clinic or, if they were uncomfortable doing so, completing it at home and returning it the investigator by mail. While 100 caregivers completed the questionnaire in person for the third interview, 129 chose to return completed questionnaire by mail. Those who wished to return the questionnaire by mail a stamped, self-addressed envelope in which to return it. If the questionnaire was not returned within 7 days after the follow-up appointment, reminder phone calls were made. If the elder did not have an appointment scheduled from 14-16 days after discharge, then the questionnaire was mailed to the caregiver along with a stamped, self-addressed envelope in which to return it. Of 129, caregivers in this group, 120

mailed back the questionnaire, yielding a response rate of 93%. All caregivers who completed the questionnaires received a letter thanking them for their participation (see Appendix F).

Significant differences in responses for caregiver role strain from care activities were found between the in-person interview and the mailed questionnaire ($p = .002$). Caregivers who completed the questionnaire by mail reported a higher level of caregiver role strain from care activities ($M = .94$) than those who completed the questionnaires in person ($M = .66$). The alpha level of .016 was used for multiple tests. No difference in responses between the in-person interview and the mailed questionnaire was found for worry and global strain.

Measures

Table 1 presents an overview of the instruments used in the study, including the concept and definition of the instruments, the number of items in each one, the psychometric properties of each one from previous research, and the setting in which the instrument was used. A copy of each instrument, both Thai and English versions, can be found in Appendix G.

Table 1

Concepts, Definitions, Administrative Items, Psychometric Properties from Previous Research, Times, and Sources

Concept	Definition of concept	US		Thai		Time	Source
		No. Items	α	No. Items	α		
Care Receiver (CR) Characteristics	Age, sex, diagnosis, length of stay, functional and cognitive status of older person.	6	-	6	-	In Hospital	Chart Audit
Caregiver (CG) Characteristics	Age, sex, marital status, education level, the relationship of the caregiver to the care receiver, years known the care receiver, living arrangement, and SES (employment status, household income)	9	-	9	-	In Hospital	Interview
Family Care Actions in Hospital Care	What family members say or do to help an older relative in the hospital.	81	92	63	-	Part A: In Hospital Part B: Telephone call day after discharge	Interview

(cont.)

Table 1 (cont.)

Concept	Definition of concept	Scale/ Subscale	US		Thai		Time	Source
			No. Items	α	No. Items	α		
Strain from Family Care Actions in Hospital	How hard was doing care in hospital.		-	-	9	.9	In Hospital	Interview
Preparedness	The caregiver's perception of how well prepared he or she is for the tasks and stress of the caregiving role.	Preparation for Caregiving Scale (Archbold et al., 1992):	8	.86 - .92	8	.82	In Hospital	Interview
Mutuality	Relationship with patient: love, shared values, shared pleasure activities, and reciprocity.	Mutuality Scale (Archbold et al., 1992)	15	.91 - .95	15	.94	In Hospital	Interview
Strain from Worry	The caregiver's feelings of difficulty in fulfilling the caregiver role because of worry about the care receiver, the caregiver him or herself, their future, and caregiving per se.	Worry Scale (Archbold et al., 1990)	17	.89 - .96	15	.75	Post-discharge	Interview

(cont.)

Table 1 (cont.)

Concept	Definition of concept	Scale/ Subscale	US		Thai		Time	Source
			No. Items	α	No. Items	α		
Global Strain	The caregiver's feelings of difficulty in fulfilling the caregiver role as whole.	Global Strain Scale (Archbold et al., 1990)	4	.76 - .84	4	.74	Post-discharge	Interview
Amount of and Strain from Care Activities	The number of caregiving tasks performed by the caregiver and the feelings of difficulty in performing specific caregiving tasks	Caregiver Role Strain from Care Activities Scales (Archbold et al., 1990)	90	.99	* 74 items		Post-discharge	Interview
		Total Scale						
		Personal care			14	.84		
		Mobility and protection			8	.83		
		Illness care			19	.89		
		Little extras and emotional support			13	.81		
		Symptoms of dementia and difficult behavior			14	.79		
		Arranged care			6	.71		

*Amount and strain from direct care: selected 74 items from the original 90-items were used, 16 items within transporting, banking, and housekeeping were deleted because they were not related to family care in hospital.

A demographic instrument was used with the family caregivers. It queried for the caregiver's age, gender, marital status, education level, employment status, the relationship of the caregiver to the elder, number of years knowing the elder, household income, and living arrangement (see Appendix G).

A chart review form was developed. It was used to collect data on diagnosis and treatment for the current admission, admission and discharge date, length of stay, and the functional and cognitive status of the older person at the time of hospital discharge (see Appendix H).

Family Care Actions Index (FCAI). The FCAI measured "what family members say or do to help an older relative in the hospital" (Li et al., 2000, p.7). Family care actions were measured by family caregivers indicating whether they provided the care described in an 81-item checklist. The original 81-item checklist was comprised of two parts:

1. Part A contained 70 items to measure what family caregivers said or did for their hospitalized elders during admission and hospitalization.
2. Part B contained 11 items to measure what family caregivers said or did during the process of discharge.

This index was computed by summing the total scores of the 81 items scored as 0 (*no*) or 1 (*yes*). The total score was obtained by summing the number of tasks performed across the 81-item checklist. Composite scores ranged from 0 to 81, with higher scores implying more family care actions in the hospital. One final question was added to allow caregivers the opportunity to mention caregiving activities that may have been missed by the 81-item checklist.

Preliminary evidence for the original 81-item FCAI demonstrated its reliability and validity in the U.S. (Li et al., 2002). Internal consistency (Cronbach's alpha) on two samples, 30 and 40 family caregivers of hospitalized elders, was .92 and .93, respectively. Construct validity has been examined by testing correlations between the FCAI and mutuality between caregiver and care receiver ($r = .36, p < .05$) and the encouragement from staff to participate in the care ($r = .50; p = .05$). The FCAI had not previously been translated and/or used in the Thai population.

Family Care Actions Index Strain (FCAI Strain). FCAI Strain was developed by the investigator for measuring strain from the family care actions associated with the FCAI scale. Nine questions were created to ask about strain from family care actions in the hospital. Participants were asked to rate how difficult it was to provide nine specific types of care, including: (a) being there, (b) performing typical family functions in the hospital, (c) providing passage between home and hospital, (d) attending to the patient's personal care needs, (e) exchanging information between family and the health care team, (f) collaborating with the health care team to provide personal care, (g) participating in the therapeutic health care regimens, (h) making sure the health care team takes care of the patient's needs, and (i) taking care of self. The activities were rated using a scale from 0 (*easy*) to 4 (*very hard*). Higher scores meant more strain. Since the FCAI Strain was developed as part of this study, it neither reliability nor validity had not been established.

Mutuality Scale. In the U.S., the Mutuality Scale has been reported to have high reliability (Cronbach's alpha range from .91 to .95) and test-retest reliability ($\alpha = .92$) (Archbold & Stewart, 1999). The Mutuality Scale was measured using a

5-point, 15-item scale. The items were divided into four subscales: (a) love and affection; (b) shared pleasurable activities; (c) shared values; and (d) reciprocity. The items were scored on a 5-point scale ranging from 0 (*not at all*) to 4 (*a great deal*). The overall score was computed by averaging the responses to the 15 items, so the scores ranged from 0 to 4. High scores meant high mutuality. In Thailand, content validity had been established by literature review and three nurse experts. A Cronbach's alpha of .94 had been established in a Thai caregiver population (Wirojratana, 2002). Cronbach's alpha was .92 in this study.

Preparedness Scale. In the U.S., the Preparedness Scale has been reported to have high internal consistency reliability (Cronbach's alpha range from .86 to .91) (Archbold & Stewart, 1999). The Preparedness Scale was measured with a 5-point, 8-item scale. Scores ranged from 0 (*not at all prepared*) to 4 (*very well prepared*). The overall score was computed averaging the responses to the 8 items, so the scores ranged from 0 to 4. High scores meant high preparedness. In Thailand, content validity had been established by three Thai nurse experts. A Cronbach's alpha of .82 had been reported in a Thai caregiver population (Wirojratana, 2002). Cronbach's alpha was .83 in the present study.

Caregiver Role Strain Scale. Three aspects of strain, including caregiver role strain from care activities (74 items), strain from worry (17 items), and global strain (4 items) were measured in this study. In the U.S., the internal consistency reliability (Cronbach's alpha) of the three aspects of caregiver role strain varied from .76 to .99 (Archbold et al., 1995). These aspects of caregiver role strain were measured on a 5-point scale. The scores ranged from 0 (*no strain*) to 4 (*high strain*) in each item. The

overall score was computed by averaging the responses to the total items for each aspect of strain, so the scores ranged from 0 to 4. Stewart, one of the researchers who developed the instrument, suggested that to calculate a score on the caregiver role strain from care activities scale, a caregiver needed to have answered that he/she had performed at least one care activity and rated how hard it was to do that activity (B. Stewart, personal communication, March 28, 2003). High scores implied high caregiver role strain.

In Thailand, content validity had been supported by literature review and three Thai nurse experts. Construct validity of the three aspects of caregiver role strain had also been established in a Thai caregiver population. Cronbach's alpha of the three aspects of caregiver role strain ranged from .74 to .99: Caregiver Role Strain from Care Activities was .99, Worry was .76, and Global Strain was .74 (Wirojratana, 2002). In this study Cronbach's alpha of Caregiver Role Strain from Care Activities was .99, Worry was .77, and Global Strain was .80.

Procedures for the Protection of Human Subjects

For data coding, an identification number was assigned to each of the elders in the order that they gave permission to the investigator to review their medical records and to have their family caregivers contacted. A master sheet with the code numbers, names of patients, and their caregivers was stored in a locked cabinet separate from the data collected. A participants' assigned identification number was used on data collection sheets rather than his/her name. All information reviewed from medical records and provided by individual caregivers was kept confidential by reporting only group data. The principal investigator did not report any information to the health care

providers treating or providing care to the elders. The principal investigator did not discuss information obtained from the caregivers with the elders. The data materials were to be kept for five years for purposes of additional related research.

Risks and benefits. Participants were informed that they might personally benefit from participating in the study. However, by serving as a subject, participants could contribute new information that might benefit hospitalized elders and caregivers in the future. Participants were free to withdraw from the study at anytime, and the study procedures did not disrupt routine patient care and/or treatment in any way.

Data Analysis of Phase II

SPSS version 11.0 was used to analyze the data. Data were entered and verified. The plan for missing data was as follows: If more than 20% of the data were missing from the data set, a case would be deleted. If the percentage of missing data did not reach 20%, the scales based on the sample means of available items would be used to replace missing data. The alpha level was set at .05 for all analyses in this study.

Aim 3: Item Analysis of the Thai FCAI and FCAI Strain

Indices of item difficulty and discrimination were used with the Thai FCAI. The goal of this analysis was to select items that would distinguish caregivers who did a significant amount of caregiving in the hospital from those who did little. Ordinarily, item difficulty is used to evaluate whether or not the difficulty of an item is suited to the level of the participant taking the test, and the item difficulty index is calculated as a percentage of persons who get that item correct (Allen & Yen, 2002). In this study,

item difficulty was used to determine the percentage of caregivers who performed each particular family care action. The item difficulty index would then increase with more caregivers performing that particular family care action. The item difficulty index ranged from 0 (*no caregivers performed that action*) to 1 (*all caregivers performed that actions*). When the index was close to 0 or close to 1, the item was discarded from the instrument, as there was no variance, everyone responded the same way.

Item discrimination is the difference between the proportion of high-scoring participants and the proportion of low-scoring participants who performed each particular family care action (Allen & Yen, 2002). One-third of the participants with the highest total scores (33%) were defined as the upper range group or high-scoring participants, and one-third of those (33%) with the lowest total test scores were defined as the lower range group or low-scoring participants. Items with low item discrimination values were deleted because they could not provide information about differences among people performing lots of family care actions and people performing few family care actions.

Indices of item difficulty and discrimination were also used with FCAI Strain. The goal of this analysis was to select items that would distinguish caregivers who experienced less strain from those who experienced high strain. Item difficulty was the proportion of caregivers who reported *easy* or *not too hard* for the item. Item discrimination was represented by the difference between the proportion of the upper 33% high-scoring and lower 33% low-scoring caregivers who answered the item as *easy* or *not too hard*.

Then, factor analysis was used on the FCAI Strain items to examine pattern of factor loadings. Principal axis extraction was the factor analytic method applied. Oblique rotation was used, because the investigator assumed that constructs were correlated. The aim was to ensure that the nine items contributed to the strain scores in a meaningful way. A factor loading greater than 0.40 was considered meaningful and was used in defining that factor.

Aim 4: Reliability Estimates

Reliability of an instrument is the degree of: (a) consistency of the instrument as a measure of the critical attributes that it purports to measure, and (b) accuracy of the instrument (Nunnally, 1978; Polit & Hungler, 1999). Internal consistency is concerned with the inter-correlation among items in an instrument. The items in an instrument are highly intercorrelated if the items measure the same traits or attributes. In addition, reliability is a function of the number of items in the instrument. A longer test will always have a higher reliability than a shorter one given the same degree of positive inter-correlations among the items.

In terms of accuracy, an instrument is reliable if its observed scores are highly related to its true scores (Allen & Yen, 2002; Polit & Hungler, 1999). Generally, any differences between examinees' observed scores can reflect true score differences or errors of measurement. The aim of an instrument is to estimate an examinee's score accurately. As the magnitude of reliability of the test increases, the error-to-score variance becomes relatively smaller. If the reliability coefficient is equal to 1, it means there is perfect reliability and no measurement error. On the other hand, if the reliability coefficient is equal to 0, it means there is no reliability.

One good measure of internal consistency—coefficient alpha (a.k.a. Cronbach's alpha)—was used to estimate the reliability of the scales in this study. Inter-item correlation and item-total correlation were also calculated to determine the internal consistency of the FCAI Strain. Cronbach's alpha of the Mutuality, Preparedness, Caregiver Role Strain from Care Activities, Worry, and Global Strain scales were also calculated.

Aim 5: Criterion Validity Estimates

Criterion validity is the degree of correspondence between two measures when an instrument is used to estimate some other criterion (Allen & Yen, 2002; Nunnally, 1978; Polit & Hungler, 1999). Two types of criterion validity were performed: a concurrent validity and a predictive validity. A concurrent-validity is the degree of correlation between test and criterion scores when both scores are measured at the same time (Allen & Yen, 2002; Polit & Hungler, 1999). In this study, concurrent validity was estimated by testing the bivariate correlations between the Thai FCAI and Mutuality and Preparedness Scales and the FCAI Strain with Mutuality and Preparedness Scales. Predictive validity is the degree of correlation between test and criterion scores with the test score being obtained before the criterion score. In this study, predictive validity tested the Thai FCAI and FCAI Strain using Caregiver Role Strain from Care Activities, Worry, and Global Strain Scales at 2 weeks post discharge. All the criterion measures used in this study demonstrated validity and reliability in the Thai population (Wirojratana, 2002). The magnitude of the correlation coefficient indicates the amount of validity. The instrument is valid if its score moderately correlates with the criterion (Nunnally, 1978).

Three hypotheses were tested based on the conceptual framework of this study. Concurrent validity was addressed with hypotheses 1 and 2. Predictive validity was addressed with hypothesis 3. Correlation analyses were used to test the following hypotheses:

1. Higher levels of mutuality will be associated with more participation in and less strain from family care actions during a hospital stay.
2. Higher levels of preparedness will be associated with more participation in and less strain from family care actions during a hospital stay.
3. Lower levels of family care actions and less strain from family care actions during hospital stay will be associated with lower levels of caregiver role strain from care activities, worry, and global strain 2 weeks following discharge.

Research Questions

The study examined the relationship between the caregiving experiences (i.e., amount of family care action and strain from family care actions) in the hospital and caregiver characteristics and further explored whether the caregiving experience in the hospital influenced the caregiving experience at home. Two research questions were asked:

1. Are there relationships between the amount of family care actions, strain from family care actions, and caregiver characteristics?

Caregiver characteristics, including age, gender, and the type of relationship, were related to the amount of family care actions (FCAI) and strain from family care action (FCAI Strain) in the Thai culture. Correlations examined relationships between age and the amount of family care actions and strain from family care action. *T* tests

were used to examine the difference in the mean amount of family care action or mean strain from family care actions between male and female caregivers. Analysis of variance (ANOVA) was used to test the difference in the mean amount of family care action or mean strain from family care actions among types of relationships: spouse caregivers, daughter caregivers, and other caregivers. A Bonferroni-type adjustment was not used due to the exploratory nature of this research.

2. Does preparedness act as a moderator of the effect of the Thai FCAI and FCAI Strain on caregiver role strain from care activities, worry, and global strain at 2 weeks post discharge?

Regression analysis was used to test preparedness as a moderator of the relationship between the amount of family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge. A hierarchical approach was used to test the following: (a) the main effects of the amount of family care actions and preparedness on caregiver role strain, and (b) the interaction term of the amount of family care actions and preparedness on caregiver role strain.

Regression analysis was also used to test preparedness as a moderator of the relationship between the strain from family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge. A hierarchical approach was used to test the following: (a) the main effects of strain from family care actions and preparedness on caregiver role strain, and (b) the interaction term of strain from family care actions and preparedness on caregiver role strain.

The moderator effect was supported if the interaction terms were significant (Baron & Kenny, 1986). The moderator effect of preparedness was hypothesized to affect the direction of the relationship between the amount of family care actions in the hospital and caregiver role strain at home and the strength of the relationship between strain from family care actions in the hospital and caregiver role strain at home.

CHAPTER 4

RESULTS

The findings of the study are presented in this chapter. The psychometric properties of the FCAI scale and FCAI Strain scale in the Thai population are reported. The sample, which includes the family caregivers and their hospitalized elders, as well as the descriptive statistics on the scales used in this study, are described. The analyses of the three hypotheses and two research questions are also presented.

Aim 1: Evaluation of Content Validity by Experts

Relevance

A content validity index (CVI) was calculated across 12 reviewers' ratings of each item's relevance. The percentage of reviewers who rated an individual item as somewhat relevant or very relevant was calculated. The CVI score ranged from 0.42 to 1.0 across the 81 items. Of the 81 items, 78 items met the criteria of 0.70 or better (range of scores from 0.91 to 1.0) and were accepted as having good content validity. Of the 81 items, 39 items (48%) were rated by all 12 reviewers as very relevant. Three items with CVI less than .70 were deleted because of inadequate content validity.

Table 2 presents the deletions.

The item, "I called my relative from home" may have been judged as not relevant because it is not applicable in a general hospital in Thailand. While staying in a unit, the hospitalized elders do not have their own telephone or cell phone. Another possible explanation is that many caregivers visit their hospitalized elders daily, so there is no need for them to call from home.

Table 2

CVI Scores of the Three Items Deleted for Content Validity Problems

Item	CVI scores	# who rated this item as not relevant (<i>N</i> = 12)
I called my relative from home.	0.50	6
I pushed the wheelchair with my relative sitting in it.	0.50	6
I bought in clothes that were easy for my relative to put on.	0.42	7

One possible reason the reviewers thought the item “I pushed the wheelchair with my relative sitting in it” was irrelevant is that the hospitalized elder is often discharged before being given an opportunity to use a wheelchair. Therefore, this activity is rarely seen. Another explanation could be that in Thai hospitals, the hospital staff always push wheelchairs for hospitalized elders when needed. From the investigator’s experience, pushing of wheelchairs by family members is frequently seen at the outpatient clinic when the elders come back for follow-up, especially at outpatient orthopedic clinic, but not during the hospital stay. The item “I brought in clothes that were easy for my relative to put on” may have been judged not relevant because the hospital provides clothes for the patients. In Thailand, all patients use clothes provided by the hospital staff.

Appropriateness

All 12 reviewers also identified five items (see Table 3) that needed to be adapted for cultural appropriateness and Thailand hospital settings. Reviewers suggested that the item “I prayed with my relative” needed to include more specific activities. For example, in the Thai culture, arranging flowers for holy things would be a good example of an activity that has deep spiritual significance, even though in the Western sense, it is not a “prayer.” “I arranged things in my relative’s hospital room (e.g., posting get well cards)” needed to be modified, because patients in private rooms were excluded from the study, and “arranging the room” would be inappropriate. Each patient has only his/her bed, a bedside table, and a chair. The item “I went to the pharmacy and picked up his/her prescription” needed to be adapted for this study, because of a procedure specific to the study hospital. The nurses at RH give any required medications to the patient or his/her caregiver before they are discharged. Finally, the items “I drove my relative to the hospital” and “I drove my relative home” needed to be modified because caregivers almost always took their elderly family member to the hospital by cab or were driven by another relative. *Took* captured these care activities in the Thai culture better than *drove*.

Table 3

Items That Were Modified for the Thai FCAI

Original item	Modified item
I prayed with my relative.	I prayed or did activities that meet my relative's spiritual needs (e.g., arrange flower for the holy things).
I arranged things in my relative's hospital room (e.g., posting get well cards).	I arranged things on my relative's bedside table (e.g., flower, cards, goody or wholesome food etc.).
I went to the pharmacy and picked up his/her prescription.	I picked up his/her medicine from nurse.
I drove my relative to the hospital.	I took my relative to the hospital.
I drove my relative home.	I took my relative home.

Redundancy

Simultaneously, six family caregivers were asked to identify items that they considered to be redundant. Based on their responses, 15 items were deleted for redundancy (see Table 4). Eight items had at least 4 out of 6 caregivers rate them as redundant. Five items had 3 out of 6 caregivers rate them as redundant. Two items had only 2 out of 6 caregivers rate them as redundant. The investigator deleted all of these items.

Table 4

Items Deleted Due to Redundancy

Deleted item	# of raters who rated this item as redundant (n = 6)	Item considered redundant with
I took my relative to do something enjoyable.	4	I did things together with my relative that he or she likes to do.
I brought in special things from home for my relative to keep at the bedside.	4	I brought things from home for him or her.
I reassured my relative that I was there.	2	I stayed with my relative.
I helped my relative to answer questions during admission.	3	I provided information about my relative to hospital staff.
I took care of my relative's clothes.	4	I help my relative with dressing or undressing.
I checked on my relative to make sure that his or her needs were met.	3	I helped my relative to get something he or she needed or wanted.
When nurses were taking care of my relative, I tried to help out as much as I could.	4	I tried to do thing to make it easier for nurses to take care of my relatives.
I made the bed more comfortable for him or her.	5	I did things to help my relative get comfortable.
I kept my relative company.	5	I stayed with my relative.
I helped the nurse in my relative's care when an extra hand was needed.	3	I tried to do thing to make it easier for nurses to take care of my relatives.

(cont.)

Table 4 (cont.)

Deleted item	# of raters who rated this item as redundant (n = 6)	Item considered redundant with
I participated in decision making about my relative.	6	I participated in decision making about my relative's care.
I stayed with my relative, even during times he or she was not aware I was there.	3	I stayed with my relative.
I made sure that hospital staff checked in on my relative often enough.	3	I made sure that nurses were caring for my relative appropriately.
I made sure my relative was comfortable.	4	I did things to help my relative get comfortable.
I picked up my relative on the discharge day.	6	I took my relative home.

Comprehensiveness and Clarity

Of the 81 items, 18 items (i.e., 3 items for inadequate content validity and 15 items for redundancy) were deleted. Only 63 items were included in the Thai version of the FCAI. FCAI Part A contained 53 items that measure family care actions during hospitalization. FCAI Part B contained 10 items that measure family care actions on the day of discharge. The investigator pre-tested the 63 items with nine caregivers, including three caregivers each from medical, surgical and orthopedic units to ensure the individual items could be understood by the target population. The nine caregivers rated all 63 items as understandable.

Aim 2. Evaluation of Construct Validity by a Panel of Experts

Six Thai reviewers, including three Thai nurse researchers and three Thai nurses with expertise in gerontological nursing, were asked to independently sort the 63 item FCAI into three hypothetical constructs of the FCAI: (a) providing care to the patients, (b) working together with health care team, (c) taking care of self. A “don’t know” or “unsure” category was also available. Of the 63 items, 54 items were sorted by at least 4 of the six reviewers into the hypothetical constructs of the FCAI: (a) providing care to the patients (32 items), (b) working together with health care team (17 items), and (c) taking care of self (5 items). The results for nine of the items associated with the “working together with health care team” hypothetical construct of the FCAI, revealed that fewer than four of nine reviewers associated those items as predicted, suggesting poor construct validity (see Table 5). Those items were instead associated with the “providing care to the patients” construct.

These nine items were reviewed by a group of eight gerontological nursing experts in the U.S. for their construct validity. Each reviewer was asked three questions:

1. How important do you think the items are for describing family care actions in the hospital?
2. How detrimental would it be to keep these items given that the experts challenged their face validity?
3. Where do you think each of these nine items belong?

Table 5

Items Sorted to the “Providing Care to the Patient” Subscale Rather than to the “Working Together with Health Care Team” Subscale

Item	# of raters who sorted item to different subscale (n = 6)
I helped my relative take pill.	4
I asked question about my relative’s treatment.	4
I helped my relative with his or her breathing exercise.	5
I made sure my relative had fresh cold water to drink.	5
I made sure that nurses were caring for my relative appropriately.	4
I asked hospital staff to clarify the discharge instruction.	5
I participated in discharge instructions with my relative.	5
I learned things about my relative’s follow up care.	5
I learned about equipment for my relative, which could make his or her care easier at home.	5

The experts suggested that cultural issues between the U.S. and Thailand might explain the difference or that these two hypothetical constructs may not be mutually exclusive. However, another explanation might be that some of the nine items formed a new subscale that could be called “advocacy”. For example, the item “I asked hospital staff to clarify the discharge instruction” does not seem to fit in either (a) providing care to the patient or (b) working together with health care team. It could, however, fit into an advocacy subscale. The nine items were retained, and the issues described above were explored further.

Description of the Sample

A total of 247 caregivers and their hospitalized elders were contacted for possible participation in the study. Of those, 243 (98.4%) consented. Twenty-three participants were excluded from analysis because of incomplete data (10 cases) or for other reasons (13 cases). Of those excluded due to incomplete data, one refused to participate in the third interview, six failed to mail back the third questionnaire even after the investigator made one reminder phone call, and the questionnaires for three others were lost in the mail. Another 13 cases were excluded from analysis because: (a) the elder died during the two-week period following after discharge (5 cases), (b) the elder was admitted to another hospital within two weeks (2 cases), (c) the elder was transferred to a nursing home (2 cases), (d) the elder was referred to another hospital (1 case), (e) a different caregiver assumed the care of the elder during the 2 weeks after discharge (1 case), or (f) the caregiver was unable to participate in family care actions during hospitalization (2 cases). Of the 243 who had given their consent, 220 (90.5%) provided complete information.

The demographic characteristics of for this study ($N = 220$) are summarized in Table 6. Of those, 173 (78.6%) were female. Nearly half of the caregivers, ($n = 108$ or 49.1%) were daughters of the elders. The mean age of the caregivers was 44.7 with a range from 19 to 85 years ($SD = 12.3$); 78.6% ($n = 173$) were between 30 and 59 years of age; 60.5% ($n = 133$) were married and 55.9% ($n = 123$) worked. About half of the caregivers (49.1%, $n = 108$) rated their family monthly income as higher than 20,000 Bath (approximately \$500), which is considered high income in Thailand. Most of the caregivers (82.3%, $n = 181$) lived with the elders.

Table 6

Caregiver Demographics (N = 220)

Characteristic	#	%	<i>M</i>	<i>SD</i>
Age			44.7	12.3
Gender				
Female	173	78.6		
Male	47	21.4		
Marital Status				
Married	133	60.5		
Widowed	9	4.1		
Divorced	7	3.2		
Never married	71	32.3		
Education (last completed)				
Elementary School	49	22.3		
High School	44	20.0		
College	38	17.3		
Graduate School	89	40.5		
Employment Status				
Employed	123	55.9		
Not employed	97	44.1		
Relationship with Elder				
Wife	31	14.1		
Husband	7	3.2		
Daughter	108	49.1		
Son	32	14.5		
Daughter-in-law	13	5.9		
Other relative	27	12.3		
Neighbor or friend	1	.5		
Other	1	.5		

(cont.)

Table 6 (cont.)

Characteristic	#	%	<i>M</i>	<i>SD</i>
Family's monthly Income				
1,000-5,000 Bath	15	6.8		
5,001-10,000 Bath	41	18.6		
10,001-15,000 Bath	29	13.2		
15,001-20,000 Bath	27	12.3		
20,000 Bath +	108	49.5		
Year of knowing elder			38.3	12.3
Living with elder				
Yes	181	82.3		
No	39	17.7		
If not, how far from elder (in kilometers)			53.5	104.7
(n = 39)				

The demographic characteristics of hospitalized elders are summarized in Table 7. The average age of the hospitalized elders was 72 years with a range from 60 to 100 years ($SD = 8.2$). All the hospitalized elders were of Thai descent, and nearly all (97.7 %) were identified as Buddhist. The balance of 2.3% were Muslim. More than half this group (57.7%) was female, and 62.7% of the elders were married.

Table 7

Elder Demographics (N = 220)

Characteristic	#	%	<i>M</i>	<i>SD</i>
Age			72	8.2
Gender				
Female	127	42.3		
Male	93	57.7		
Ethnicity/Religion				
Thai/Buddhist	215	97.7		
Thai/Muslim	5	2.3		
Marital Status				
Married	138	62.7		
Widowed	75	33.6		
Divorced	1	.5		
Separated	2	.9		
Never married	5	2.3		

Additional information for the hospitalized elders, including ward, diagnosis, need for help with ADLs, level of communication, and length of stays appears in Table 8. About half (50.5%) were in surgical units, 27.7% in medical units, and 21.8% in orthopedic unit. The average length of stay was 13.4 days. One-fourth of the elders (24.5%) were diagnosed with musculoskeletal diseases. Most needed help with bathing (89.6%), dressing (74.6%) and/or walking (70.4%). Almost all (90%) were conscious and could make their needs known consistently.

Table 8

Ward, Diagnosis, Need for Help with ADLs, Level of Communication, and Length of Stays of Elders (N = 220)

Variable	#	%	<i>M</i>	<i>SD</i>
Ward				
Surgical Unit	111	50.5		
Medical Unit	61	27.7		
Orthopedic Unit	48	21.8		
Diagnosis				
Musculoskeletal Diseases	54	24.5		
Gastrointestinal Diseases	37	16.8		
Cancer	34	15.5		
Cardiovascular Diseases	25	11.4		
Renal Disease or Urinary System Diseases	21	9.5		
Cerebrovascular Diseases	18	8.2		
Infectious Diseases	10	4.5		
Respiratory Tract Diseases	8	3.6		
Endocrine and Metabolism Disorders	6	2.7		
Debridement or Suture	4	1.8		
Vascular Disease	3	1.4		
Elder needs help with ADLs				
Eating	28	12.8		
Bathing	197	89.6		
Dressing	164	74.6		
Walking	155	70.4		
Transferring	149	67.7		
Voiding	34	15.5		
Elimination	29	13.2		

(cont.)

Table 8 (cont.)

Variable	#	%	<i>M</i>	<i>SD</i>
Level of Communication				
Make needs known consistently	196	89.1		
Difficult to understand consistently	17	7.7		
Unable to make needs known	7	3.2		
Level of Conscious				
Oriented to person, place, and time	198	90.0		
Oriented to person only	19	8.6		
Not Oriented to person, place, and time	3	1.4		
Length of Stays			13.4	15.6

Aim 3. Item Analysis for the Thai FCAI and FCAI Strain

Thai FCAI. Table 9 presents the results of the item analysis of the 63-item Thai FCAI. The number of "yes" responses, item difficulty, item discrimination, and item status are included in the table. Item difficulty refers to the proportion of caregivers who said "yes" or performed the activity described in the item. Item difficulty ranged from .15 to 1.0, varying from activities that few caregivers performed (.15) to the activities that all caregivers performed during the hospitalization (1.0). Twelve items were deleted due to zero variance; all 220 participants indicated that they had performed that activity. In the Thai culture, these family care actions are commonly performed; they included items such as: "I stayed with my relative," "I talked with my relative," "I did things for my relative that he or she could not do for him or herself."

Therefore, 51 items with some variance were kept. Those retained that many caregivers reported performing included, for example, "I kept relatives informed about my relative" (.99), "I arranged for a visitor to see my relative" (.98), and "I gave emotional support to him or her" (.98). Activities that few caregivers performed included "I asked a close friend or relative to come to the hospital to give me support" (.15), "I helped my relative with his or her breathing exercise" (.29), and "I read religious materials to him or her" (.42).

Item discrimination is the difference between the proportion of high-scoring caregivers and the proportion of low-scoring caregivers who performed the activity described in that item. Item discrimination among the 51 items with some variance ranged from .01-.53. Twenty-three activities had an item-discrimination index less than .10. A discrimination level of .10 was selected as a reasonable cut-off score to maximize the detection of differences among caregivers. Items with discriminations less than .10 were also associated with item difficulty levels between .96 and .99, suggesting that these items had very little variance. Thus, 23 items had either poor item discrimination and/or item difficulty and consequently were not useful for discriminating among caregivers; these 23 items were deleted. Therefore, 35 items (i.e., 12 items for zero variance and 23 items for item discrimination less than .10) were eliminated, leaving 28 items in the Thai FCAI.

Table 9

Item Analysis of 63-item Thai FCAI

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I stayed with my relative.	220	1.0	N/A	Deleted for zero variance
I arranged for visitors to see my relative.	217	.98	.04	Deleted for item discrimination
I talked with my relative.	220	1.0	N/A	Deleted for zero variance
I kept relatives informed about my relative.	219	.99	.01	Deleted for item discrimination
I did things together with my relative that he or she likes to do.	200	.90	.20	Item retained
I brought my relative's favorite food.	191	.86	.24	Item retained
I gave emotional support to him or her.	216	.98	.05	Deleted for item discrimination
I held my relative's hand.	220	1.0	N/A	Deleted for zero variance
I prayed or did other activities that met spiritual needs (e.g., arrange flower for the holy things).	155	.70	.50	Item retained
I read religious materials to him or her.	93	.42	.57	Item retained
I brought things from home for him or her.	220	1.0	N/A	Deleted for zero variance

(cont.)

Table 9 (cont.)

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I did things for my relative that he or she could not do for him or herself.	220	1.0	N/A	Deleted for zero variance
I helped my relative with toileting, or using the bedpan or commode.	200	.90	.25	Item retained
I helped my relative with eating.	220	1.0	N/A	Deleted for zero variance
I helped my relative with dressing or undressing.	176	.80	.36	Item retained
I did things to help my relative get comfortable.	220	1.0	N/A	Deleted for zero variance
I helped my relative with taking fluids.	220	1.0	N/A	Deleted for zero variance
I helped my relative with bathing or showering.	161	.73	.39	Item retained
I helped my relative to turn in bed.	217	.98	.04	Deleted for item discrimination
I helped my relative with hygiene care (care of teeth, hair, feet, and nails).	186	.84	.30	Item retained
I tried to do things to make it easier for nurses to take care of my relative.	220	1.0	N/A	Deleted for zero variance

(cont.)

Table 9 (cont.)

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I helped my relative to stand up or get into bed.	198	.90	.13	Item retained
I helped my relative with walking.	177	.80	.22	Item retained
I encouraged my relative to do things (e.g., eating).	217	.98	.03	Deleted for item discrimination
I helped my relative to get something he or she needed or wanted.	220	1.0	N/A	Deleted for zero variance
I helped my relative by running errands for him or her.	217	.98	.04	Deleted for item discrimination
I provided information about my relative to hospital staff.	210	.95	.28	Item retained
I learned new care skills from the health care team members.	201	.91	.25	Item retained
I learned things about my relative's treatment.	219	.99	.01	Deleted for item discrimination
I helped my relative take pills.	214	.97	.08	Deleted for item discrimination
I asked question about my relative's treatment.	220	1.0	N/A	Deleted for zero variance
				(cont.)

Table 9 (cont.)

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I helped my relative during his or her recovery in the hospital by following directions from staff.	220	1.0	N/A	Deleted for zero variance
I watched what staff were doing for my relatives so I would know what to do when he or she was discharged home.	216	.98	.05	Deleted for item discrimination
I helped my relative with his or her breathing exercise.	63	.29	.50	Item retained
I left the hospital early enough, so I could get home and relax.	185	.84	.31	Deleted for taking care of self subscale
I participated in decision making about my relative's care.	218	.99	.03	Deleted for item discrimination
I arranged things on my relative's bedside table (e.g., flower, cards, goody or wholesome food etc.)	219	.99	.01	Deleted for item discrimination
I brought in books or magazines for my relative.	121	.55	.31	Item retained
I warned hospital staff about medications that might cause problems for my relative.	188	.85	.39	Item retained

(cont.)

Table 9 (cont.)

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I told the nurse about my relative's habits and the way he or she like things.	167	.75	.58	Item retained
I told the nurses about what I usually do at home for my relative's personal care.	130	.59	.66	Item retained
I told the nurses about what I usually do at home caring for my relative's mental condition (e.g., dementia, confusion).	88	.40	.51	Item retained
I made sure to eat well so I was in good shape to help my relative.	212	.96	.08	Deleted for item discrimination
I asked a close friend or relative to come to the hospital to give me support.	33	.15	.22	Deleted for taking care of self subscale
I told the nurses about what parts of personal care my relative could or could not do before his or her hospital stay.	182	.82	.47	Item retained
I told the nurses how to meet the special needs of my relative.	132	.60	.73	Item retained
I kept track of my relative's medication changes while in the hospital.	158	.71	.53	Item retained

(cont.)

Table 9 (cont.)

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I kept track of my relative's intake (how much he or she ate or output (amount of urine) and reported to nurses.	161	.73	.47	Item retained
I made sure my relative had fresh cold water to drink.	210	.95	.12	Item retained
I made sure that nurses were caring for my relative appropriately.	214	.97	.08	Deleted for item discrimination
I took a break for myself during the day when I was at the hospital.	205	.88	.25	Deleted for taking care of self subscale
I arranged for other relatives to do things for me so I could stay with him or her in the hospital.	139	.63	.51	Deleted for taking care of self subscale
I took my relative to the hospital.	205	.93	.15	Item retained
I helped my relative to get ready to go home.	218	.99	.03	Deleted for item discrimination
I took things home for my relative.	218	.99	.03	Deleted for item discrimination
I asked hospital staff to clarify the discharge instructions.	218	.99	.03	Deleted for item discrimination

(cont.)

Table 9 (cont.)

Item	# of "Yes" Response	Item Difficulty	Item Discrimination	Item status
I participated in discharge instructions with my relative.	218	.99	.03	Deleted for item discrimination
I learned new information from the discharge instructions given by the nurse.	215	.97	.07	Deleted for item discrimination
I learned things about my relative's follow up care.	217	.98	.04	Deleted for item discrimination
I learned about equipment for my relative, which could make his or her care easier.	212	.96	.07	Deleted for item discrimination
I joined planning process for my relative's discharge from the hospital.	217	.98	.04	Deleted for item discrimination
I picked up his or her medicine from nurse.	218	.99	.03	Deleted for item discrimination
I took my relative home.	217	.98	.04	Deleted for item discrimination

The 28-item Thai FCAI included four items about caregivers taking care of themselves while participating in hospital care: “I left the hospital early enough, so I could get home and relax”; “I asked a close friend or relative to come to the hospital to give me support”; “I took a break for myself during the day when I was at the hospital”; and “I arranged for other relatives to do things for me so I could stay with him or her in the hospital.” Because these four items were not directly related to providing for their hospitalized elder, the investigator decided to eliminate these four items.

The difficulty levels for the final 24 items of the Thai FCAI ranged from .29 to .95; discrimination levels ranged from .12 to .58. Table 10 summarizes item analysis of the 24-item Thai FCAI, using indices of item difficulty and discrimination.

The 24-item Thai FCAI covered six of the eight categories of the FCAI, including performing typical family functions in the hospital, providing passage between home and hospital, attending to the patient’s personal care, exchange of information between the family and health care team, participating in therapeutic health care regimens, and making sure that the health care team takes care of the patient’s needs. However, the 24-item Thai FCAI was used as a single scale in this analysis. The total score was obtained by summing the total number of family care actions performed, with “no” scored as 0 and “yes” scored as 1. Composite scores ranged from 0 to 24, with higher scores implying more participation in the hospital care.

Table 10

Summary of Item Analysis of Final 24-item Thai FCAI

Item	# of "yes" Response	Item Difficulty	Item Discrimination
I did things together with my relative that he or she likes to do.	200	.90	.20
I brought my relative's favorite food.	191	.86	.24
I prayed or do other activities that meet spiritual needs (e.g., arrange flower for the holy things).	155	.70	.50
I read religious materials to him or her.	93	.42	.57
I helped my relative with toileting, or using the bedpan or commode.	200	.90	.36
I helped my relative with dressing or undressing.	176	.80	.34
I helped my relative with bathing or showering.	161	.73	.39
I helped my relative with hygiene care (care of teeth, hair, feet, and nails).	186	.84	.30
I helped my relative to stand up or get into bed.	198	.90	.13
I helped my relative with walking.	177	.80	.22
I provided information about my relative to hospital staff.	210	.95	.13
I learned new care skills from the health care team members.	201	.91	.25
I helped my relative with his or her breathing exercise.	63	.29	.50

(cont.)

Table 10 (cont.)

Item	# of "yes" Response	Item Difficulty	Item Discrimination
I brought in books or magazines for my relative.	121	.55	.31
I warned hospital staff about medications that might cause problems for my relative.	188	.85	.39
I told the nurse about my relative's habits and the way he or she like things.	167	.75	.58
I told the nurses about what I usually do at home for my relative's personal care.	130	.59	.66
I told the nurses about what I usually do at home caring for my relative's mental condition (e.g., dementia, confusion).	88	.40	.51
I told the nurses about what parts of personal care my relative could or could not do before his or her hospital stay.	182	.82	.47
I told the nurses how to meet the special needs of my relative.	132	.60	.73
I kept track of my relative's medication changes while in the hospital.	158	.71	.53
I kept track of my relative's intake (how much he or she ate or output (amount of urine) and reported to nurses.	161	.73	.47
I made sure my relative had fresh cold water to drink.	210	.95	.12
I took my relative to the hospital.	205	.63	.51

Open-ended Question. Only 6 participants responded to the open-ended question asking about activities not addressed by the other questions that they had done for their relative. The responses were (a) massaging the elder (2 caregivers), (b) doing passive exercise with the elder (2 caregivers), (c) making a merit for the elder (1 caregiver), and (d) teaching other relatives to take care of the elder (1 caregiver). The remaining participants indicated that the Thai FCAI captured all the activities that they always performed during hospitalization.

FCAI Strain. Nine items based on categories within the FCAI were created to measure strain from family care actions during hospitalization. Table 11 presents the results of item analysis of the 9-item FCAI Strain. The number of “easy” or “not too hard” responses, item difficulty, and item discrimination are included in the table. Item difficulty is the proportion of caregivers who reported “easy” or “not too hard” for the item. Item difficulty ranged from .75 to .97. Item discrimination is the difference between the proportion of high-scoring caregivers and the proportion of low-scoring caregivers who reported “easy” or “not too hard” for the item. Item discrimination ranged from .06 to .51. Although poor item discrimination was found in two items—“collaborate with HCT to provide personal care” (.06) and “attend to your relative’s personal care” (.09),—these items were kept and further analyzed with factor analysis.

Table 11

Item Analysis of 9-item FCAI Strain

How hard is it for you to do this?	# of "easy" and "not too hard" response	Item Difficulty	Item Discrimination
Be there with your relative.	170	.77	.51
Perform typical family functions in the hospital (give emotional support).	211	.95	.11
Providing passage between home and hospital.	188	.85	.32
Attend to your relative's personal care (help with eating).	210	.95	.09
Exchange information between family and health care team.	194	.88	.23
Collaborate with health care team to provide personal care.	215	.97	.06
Participate in therapeutic health care regimens (gave pills).	205	.93	.13
Make sure the health care team takes care of elder's needs.	201	.91	.23
Take care of yourself	166	.75	.44

Principal axis extraction with oblique rotation was the method of factor analysis used to analyze the FCAI Strain and determine whether the items loaded on a single factor. The results showed two factors: (a) "strain from actual caregiving activities" (7 items) and (b) "strain from taking time for themselves (2 items). The total variance explained by the two factors was 39.2%. The "Strain from taking time

for themselves” factor was not retained for theoretical reasons as was the case in the 24-item Thai FCAI. Thus, the decision to not keep the “taking care of self” factor was consistent with what was done with the Thai FCAI total scale. The total variance explained by the one factor was 33.9%. The factor loadings among 7 items varied from .470 to .642. Table 12 presents the factor loading of the 7-item FCAI Strain. Recall that the items “collaborate with HCT to provide personal care” and “attend to your relative’s personal care” had poor item discrimination, but these two items had factor loading greater than .40, suggesting that the items were meaningful in defining the factor in the scale; consequently, the decision was made to keep these two items in the scale.

Table 12

Factor Loading of 7-item FCAI Strain

How hard is it for you to do this	Factor loading
Collaborate with health care team to provide personal care.	.64
Exchange information between family and health care team.	.63
Make sure the health care team takes care of elder’s needs.	.61
Perform typical family functions in the hospital (give emotional support).	.60
Participate in therapeutic health care regimens (gave pills).	.59
Providing passage between home and hospital.	.53
Attend to your relative’s personal care (help with eating).	.47

Descriptive Statistics on the Scales

Table 13 presents the means, standard deviations, and the potential and actual range of scores for the scales used in this study. The low mean scores were found for the FCAI Strain ($M = .34$) and caregiver role strain from care activities ($M = .82$). The high mean score occurred for the FCAI ($M = 17$). The ratio of the actual range of scores to the potential range of scores within these scales was more than .75, indicating that, with the exception of FCAI Strain scale, the participants used most of the response range of the scales. The actual to the potential range of scores for FCAI Strain was concentrated in a narrow range of less than .50. Most scores on the FCAI strain were toward the low end of 0.

Table 13

Means, Standard Deviations, and Ranges of Raw Scores on Scales Used

Scales	# items	# response options	Raw Score			
			In Hospital		At Home	
			<i>M</i>	<i>SD</i>	Potential Range	Actual Range
FCAI	24	2 (0-1)	17.96	4.12	0-24	5-24
FCAI Strain	7	5 (0-4)	.34	.40	0-4	0-1.71
Preparedness	8	5 (0-4)	2.92	.49	0-4	1.63-4.00
Mutuality	15	5 (0-4)	2.95	.57	0-4	.47-3.93
At Home						
Amount of Care Activities	74	2 (0-1)	35.9	13.6	0-74	2-68
Caregiver Role Strain from Care Activities	74	5 (0-4)	.82	.69	0-4	0-3.9
Worry	10	5 (0-4)	2.10	.69	0-4	.20-4.00
Global Strain	4	5 (0-4)	1.11	.72	0-4	0-3.75

Aim 4. Reliability Estimates

Reliability of the Thai FCAI scale was not computed. Cronbach's alpha was not a suitable approach to estimate reliability of the 24-item FCAI due to theoretical reasons. One type of family care action in the FCAI scale was not dependent on the other. Although test-retest reliability is another approach to measure reliability, it could not be used in this study, as the participants were tested only once. Instead, the investigator decided to use a simple count of the 24-item FCAI to correlate with other variables in this study.

Cronbach's alpha, inter-item correlations, and item-total correlations of the FCAI strain scale were computed. A Cronbach's alpha of .70 or greater for a scale is an acceptable level of reliability for research purposes (Nunnally, 1978). A Cronbach's alpha value for the 7-item FCAI Strain was .77, which met the .70 reliability criterion. The average inter-item correlation among the seven items was .33 with a range from .23 to .47. The average correlation of the 7-item FCAI Strain also met the criterion in that correlations should be between .30 and .70 (Nunnally, 1978). According to Nunnally, in terms of item-total correlations, "correlations above .30 are considered good" (p. 263). The average item-total correlation of FCAI Strain was .50, with a range from .40 to .55. All values indicated that the FCAI Strain scale was reliable in this study.

Aim 5. Criterion Validity Estimates

Criterion validity was assessed by calculating a statistical correlation coefficient between the test score and types of criteria. Correlations to assess concurrent validity were calculated between (a) the Thai FCAI total score and

Mutuality and Preparedness scales and (b) the FCAI Strain and the Mutuality and Preparedness scales. The Thai FCAI, FCAI Strain, Mutuality, and Preparedness were measured at the time of the hospitalization of the elder. Predictive validity was estimated by correlating scores on the Thai FCAI total and FCAI Strain with scores on the two weeks post discharge measures of Caregiver Role Strain from Care Activities, Worry, and Global Strain. Table 14 presents these correlations.

Table 14

Correlations of Thai FCAI, FCAI Strain, Mutuality, Preparedness, Amount of Care Activities, Caregiver Role Strain from Care Activities, Worry, and Global Strain (p value)

	FCAI	FCAI Strain	Preparedness	Mutuality	Amount of Care Activities	Caregiver Role Strain from Care Activities	Worry
	In Hospital						
FCAI							
FCAI Strain	-.16 (.022)						
Preparedness	.25 (<.001)	-.38 (<.001)					
Mutuality	.22 (.001)	-.19 (.005)	.52 (<.001)				
	At Home						
Amount of Care Activities	.37 (<.001)	.03 (.656)	.12 (.080)	.13 (.058)			
Caregiver Role Strain from Care Activities	-.05 (.440)	.25 (<.001)	-.28 (<.001)	-.28 (<.001)	.14 (.043)		
Worry	.04 (.561)	.17 (.011)	-.15 (.032)	.02 (.736)	.36 (<.001)	.26 (<.001)	
Global Strain	-.06 (.399)	.31 (<.001)	-.36 (<.001)	-.40 (<.001)	.19 (.004)	.51 (<.001)	.38 (<.001)

Note: Bold numbers represent significant correlations.

The correlations presented in Table 14 were used to test the following hypotheses.

Hypothesis 1: Higher mutuality will be associated with more participation in and less strain from family care actions during the hospital stay. Mutuality had a small, yet significant positive correlation with family care actions during the hospital stay ($r = .22, p < .001$). Thus, caregivers who had higher mutuality scores did more family care actions. In addition, mutuality had a small but significant negative correlation with strain from family care actions ($r = -.19, p = .005$), indicating that caregivers who had higher mutuality with the hospitalized elder felt less strain from family care actions during hospitalization.

Hypothesis 2: Higher levels of preparedness will be associated with more participation in and less strain from family care actions during the hospital stay. Preparedness had a small, yet significant positive correlation with family care actions during hospitalization ($r = .25, p < .001$). The evidence indicated that caregivers who performed more activities during the hospital stay felt more prepared. In addition, preparedness had a moderately negative correlation with strain from family care actions ($r = -.38, p < .001$), indicating that caregivers who had higher levels of strain from family care actions in the hospital felt less prepared.

Hypothesis 3: Lower levels of family care actions and less strain from family care actions during hospital stay will be associated with lower levels of caregiver role strain from care activities, worry, and global strain two weeks following discharge. The hypothesis that strain from family care actions was positively associated with caregiver role strain from care activities ($r = .25, p < .001$), worry ($r = .17, p = .011$),

and global strain ($r = .31, p < .001$) at 2 weeks post discharge was supported with small-to-moderate correlations. Results indicated that caregivers who had higher levels of strain from family care actions during the hospital stay also had a higher level of caregiver role strain at 2 weeks post discharge. The hypothesis that the amount of family care actions in the hospital was positively associated with caregiver role strain from care activities, worry, and global strain was not supported. The correlations were not significant and were close to zero.

Research Question 1: Are there relationships between the amount of family care actions, strain from family care actions, and caregiver characteristics?

Age. Age of caregiver was negatively related to strain from family care actions during the hospital stay ($r = -0.22, p < .01$); younger caregivers are more likely to experience strain than older caregivers. However, the amount of family care actions during the hospital stay was not found to be significantly different based on the caregiver's age.

Gender. Tables 15 and 16 present *t*-test statistics associating gender with the amount of family care actions and with strain from family care actions during the hospitalization of the elders. A significant difference was found between female and male caregivers in performing family care actions during the hospital stay, $t(220) = 3.076, p < .01$. Female caregivers ($M = 18.4, SD = 3.9$) did more family care actions during the hospital stay than did male caregivers ($M = 16.4, SD = 4.3$). However, strain from family care actions during the hospital stay was not significantly different between females and males.

Table 15

T-test Statistics Between Gender and the FCAI

Sex	<i>N</i>	Range	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Female	173	5-24	18.4	3.9	3.076	.002
Male	47	8-24	16.4	4.3		

Table 16

T-test Statistics Between Gender and the FCAI Strain

Sex	<i>N</i>	Range	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Female	173	0-12	2.4	2.9	.249	.80
Male	47	0-11	2.3	2.8		

Relationship between a caregiver and a hospitalized elder. Analysis of variance (ANOVA) was used to determine if there were significant differences in the mean amount of family care actions or mean strain from family care actions among three groups: (a) spouse caregivers, (b) daughter caregivers, and (c) other caregivers. As can be seen in Table 17, significant differences were found in the mean amount of family care actions between types of caregivers ($F_{2,217} = 7.09, p < .001$). Post-hoc tests indicated that (a) daughter caregivers ($M = 18.7, SD = 3.6$) did more family care actions than other caregivers ($M = 16.5, SD = 4.3$) at $p = .001$ and (b) spouse caregivers ($M = 18.6, SD = 4.5$) did more family care actions than other caregivers (M

= 16.5; $SD = 4.3$) at $p = .029$. In this study, "other caregivers" consisted of sons, sons-in-law, daughters-in-law, sisters, brothers, nieces, nephews, friends, and maids.

However, an ANOVA comparing the same groups on their strain from family care actions showed no significant differences.

Table 17

Means, Standard Deviations, and F Values of Type of Relationship

	Spouses (n= 38)	Daughters (n = 108)	Others (n = 74)	df	F	p value	Post hoc test
Amount of Family Care Actions							
<i>M</i>	18.6	18.7	16.5	2, 217	7.09	.001	Daughters > Others
<i>SD</i>	4.5	3.6	4.3				Spouse > Others
Strain From Family Care Actions							
<i>M</i>	1.8	2.3	2.8	2, 217	1.52	.221	
<i>SD</i>	2.7	2.6	3.1				

Research Question 2: Does preparedness act as a moderator of the effect of the amount of family care actions and strain from family care actions on caregiver role strain from care activities, worry, and global strain at 2 weeks post discharge?

Regression analysis of the amount of family care actions and preparedness on caregiver role strain from care activities. A hierarchical approach was used with

caregiver role strain from care activities as the dependent variable. In the first step, the main effects of the amount of family care actions in the hospital and preparedness on caregiver role strain from care activity were entered. Then the amount of family care actions by preparedness interaction term was entered. The interaction was not found to be significant. Therefore, preparedness did not moderate the relationship between the amount of family care actions in the hospital and caregiver role strain from care activity 2 weeks post discharge.

Regression analysis of the amount of family care actions and preparedness on worry. A hierarchical approach was used with worry as the dependent variable. In the first step, the main effects of the amount of family care actions in the hospital and preparedness on worry were entered. Then the amount of family care actions by preparedness interaction term was entered. The interaction was not found to be significant. Therefore, preparedness did not moderate the relationship between the amount of family care actions in the hospital and worry 2 weeks post discharge.

Regression analysis of the amount of family care actions and preparedness on global strain. A hierarchical approach was used with global strain as the dependent variable. In the first step, the main effects of the amount of family care actions in the hospital and preparedness on global strain were entered. Then the amount of family care actions by preparedness interaction term was entered. The interaction was not found to be significant. Therefore, preparedness did not moderate the relationship between the amount of family care actions in the hospital and global strain 2 weeks post discharge.

Regression analysis of strain from family care actions and preparedness on caregiver role strain from care activities. A hierarchical approach was used with caregiver role strain from care activities as the dependent variable. In the first step, the main effects of strain from family care actions and preparedness on caregiver role strain from care activities were entered. Then, the strain from family care actions by preparedness interaction term was entered. The interaction was not found to be significant. Therefore, preparedness did not moderate the relationship between strain from family care actions in the hospital and caregiver role strain from care activity 2 weeks post discharge.

Regression analysis of strain from family care actions and preparedness on worry. A hierarchical approach was used with worry as the dependent variable. In the first step, the main effects of strain from family care actions in the hospital and preparedness on worry were entered. Then the strain from family care actions by preparedness interaction term was entered. The interaction was not found to be significant. Therefore, preparedness did not moderate the relationship between strain from family care actions in the hospital and worry 2 weeks post discharge.

Regression analysis of strain from family care actions and preparedness on global strain. A hierarchical approach was used with global strain as the dependent variable. In the first step, the main effects of strain from family care actions in the hospital and preparedness on global strain were entered. The second step included entering the strain from family care actions by preparedness interaction term. The interaction was not found to be significant. Therefore, preparedness did not moderate

the relationship between strain from family care actions in the hospital and global strain 2 weeks post discharge.

Overall, preparedness did not moderate caregiver role strain from care activities, worry, or global strain at 2 weeks post discharge; none of the interaction terms were significant.

CHAPTER 5

DISCUSSION

The nature of the caregiving phenomenon in the hospital is related to the nature of the caregiving role at home. This correlational descriptive study tested the relationships among amount of family care actions, strain from family care actions, preparedness for caregiving at home, and mutuality in the hospital and caregiver role strain from care activities, worry, and strain at home. The amount of family actions during hospitalization was positively related to mutuality and preparedness. Strain from family care actions during hospitalization was inversely related to mutuality and preparedness. Strain from family care actions during hospitalization was positively related to caregiver role strain from care activities, worry, and global strain at home.

However, the context of caregiving in the hospital and caregiving at home is different. Caregivers have a supportive role during hospitalization, while at home they are the primary care providers. A significant negative relationship between the amount of caregiving activities and strain associated with caregiving activities was found in the hospital, but a significant positive relationship was found at home. On the average, the more caregivers performed in the hospital, the lower strain they experienced whereas the more caregivers performed at home, the higher strain they experienced.

The discussion will focus on the psychometric properties of the FCAI scale and FCAI Strain in the Thai population. The nature of the caregiving role in the hospital and at home, evidence linking the nature of the caregiving role from hospital to home and a lack of the moderating effect of preparedness will be discussed. Limitations and implications for theory, practice and research will also included.

Psychometric Properties of Thai FCAI

Evidence for the adequacy and usefulness of the FCAI scale has been demonstrated in several ways by this study. First, content validity of the FCAI scale was established by having items reviewed by experts for comprehensiveness, clarity, and relevance to caregiving activities in the hospital. Experts were then asked to rate each item based on its relevance to the FCAI constructs. Some items were not sorted according to the hypothesized constructs of the FCAI. Cultural differences between the U.S. and Thailand may have influenced variations in the sorting of items according to the constructs. For example, the item “I helped my relative take pill” was sorted by Thai experts to the “providing care to the patients” subscale rather than to “working together with health care team.” Therefore, in the final analysis, the total score of the FCAI was used to correlate with the other variables in the study, rather than the hypothesized constructs subscales of the instrument.

Second, item analysis using indices of item difficulty and discrimination was conducted. The 24 items in the Thai version of FCAI maximize differences among participants. Based on these criteria, 35 items from the U.S. version were deleted. Cultural differences and the dichotomous yes/no response format represent two possible explanations for this needing to be done.

Cultural Differences. The large numbers of “yes” responses to the Thai version of the FCAI may reflect normal expectations, because families are expected to participate in care activities (Ministry of Public Health, 1997). When family members get sick and stay in the hospital, it is normal for other family members to provide care. Family caregivers are proud to be given the chance to repay the elder family member

for having borne and raised them. This symbolic interaction among hospitalized elders, family caregivers and health care professionals in the Thai culture may help to explain the difference in caregiving situations between the U.S. and Thailand.

Evidence supports the expectation that caregiving in a Thai hospital is different from caregiving in a U.S. hospital. In the Thai culture, it is normal for elders to expect to receive care from their family members; family members, in turn, take pride in being able to help elders when they become sick. According to Peirce, Wright, & Fulmer (1992), elders admitted to the hospital have a significant decline in function, that is, a diminished performance in at least one of the activities of daily living (ADLs) at the beginning of the hospital stay. Based on existing literature in Thailand, elders experience a significant decline in their functional status during hospitalization compared to prior to admission (Sampatanukul, 1999; Yamvong, 1995). In the current study, most elders needed help with bathing (89.6%), dressing (74.6%), and walking (70.4%). These results are consistent with other Thai studies showing that at the time of discharge elders need help with bathing, walking, and transferring (Sampatanukul, 1999; Yamvong, 1995). These results may be explained, in part, by the reduction in functional status, described above, that elders experience when hospitalized.

Another cultural aspect of family caregiving is filial obligation, which refers to an expectation that children will take care of their elder parents. Because of this expectation, children of hospitalized elders try to help their parents as much as they can during their hospital stay. Caregivers who take care of an elderly family member are admired, respected, and accepted for doing this. In fact, caregivers may feel guilty if they do not support the parent in this way. For example, the most common ADL

involving family members with providing care in the hospital was “feeding”; the caregivers responded “yes” to the item indicating they had assisted their hospitalized elder with feeding-related care, even if their elder could perform this activity by themselves. It is also important to note, however, that social desirability may lead to over-reporting in order for caregivers to make themselves appear as if they are being good children.

These results likely reflect the work culture at Ramathibodi Hospital, where family participation is encouraged. Several intervention studies at Ramathibodi Hospital support the benefit of family participation in the care of hospitalized elders (Intarasombat et al., 1996; Saenmanoch, 1998; Sampatanukul, 1999; Yamvong, 1995), and based on these studies, the hospital changed its visiting policy to allow greater family participation in care. Additionally, the units adopted a system wherein individual nurses were assigned primary responsibility for caring for individual hospitalized elders. As a result of these changes, nurses communicated more frequently with the hospitalized elders and their family caregivers in order to understand what they might need to perform family care actions during hospitalization and to prepare their caregiving skills for caregiving at home.

Another possible explanation for the uniformity of “yes” responses with regard to family care actions in the hospital is the difference in the length of stay for hospitalized elders in the U.S. versus in Thailand. As stated earlier, Thai hospitalized elders in this study stayed in the hospital for an average of 13.4 days, compared to the length of stay in the U.S. of only 5-6 days (H. Li, personal communication, May 16, 2003). Consequently, the shorter hospital stays in the U.S. may result in family

members having less time to perform family care actions than their counterparts in Thailand.

Dichotomous Format. The FCAI is formatted in a dichotomous yes/no response scale. The yes/no format only allows for indicating the presence or absence of the attribute in scale, permitting the respondent to acknowledge either the presence or absence of the attribute in question. Although this format worked well in the U.S., its use in Thailand resulted in little variation in responses. Most items produced a high percentage of “yes” responses. Comparing a U.S. caregiver population, Wirojratana (2002) also found little variation using the yes/no format to measure care receiver instrumental activities of daily living (IADLs). The researcher explained the results by stating that family members were willing to help the elder even when the elder could perform IADLs by himself/herself.

Curiously, the “yes/no” format was found to have adequate variability in Thailand for the amount of care activities in the home setting when contrasted with the hospital setting. As stated earlier, the context of the caregiving situation in the hospital is different from that in the home. The reasons for “yes” responses might be the limitations put on an elder’s activities during hospitalization. They are unfamiliar with the hospital environment and hospital regulations. Although the hospital regulations are there to protect them from falls or other possible accidents, the elevated level of the bed and the presence of a raised bedrail further limit their activity. The hospital setting separates elders from their familiar environment and their families, and the hospital staff are new to the hospitalized elders. Evidence from existing literature indicated that family members represent a significant force for the elder, voicing the

elder's needs and communicating with health care professionals; in addition, patients want their family members to keep them company and to visit them frequently (Halm & Titler, 1990). In the home setting, caregivers arrange a room or area for the elders and encourage the elders to do things for themselves. As a result, elders improved their functional status; they could do more basic activities for themselves when compared to their status at the time of discharge.

Third, criterion validity was tested to ensure the adequacy of a scale to measure a specific variable or to predict specific events. The strength of the empirical relationship among the individual related variables in this study was obtained. The magnitude of correlations serves as evidence of the criterion validity, which is directly concerned with the relationship between a score on amount of family care actions or strain from family care actions and other variables. Nunnally (1978) suggests that a moderate correlation (e.g., correlation of .30 and .40) is a reasonable value to expect in the relationship between an instrument and its criterion. In this study, the correlations, however, would probably be considered weak to modest, in the vicinity of .20 to .40. Weak correlations in the study may be a result of restrictions in the range of the responses and/or the homogeneity of the sample. In addition, a positive relationship between the amount of FCAI and mutuality was evidenced as was also found by Li (Li et al., 2002). Therefore, these results could serve as evidence of the validity of the Thai version of the FCAI scale.

Overall, the results from this research support the usage of the Thai FCAI. This conclusion is based on content validity, revealing the scale's ability to capture family caregiving in the hospital setting, and criterion validity, demonstrating its ability to

relate the amount of family care actions and other variables in a theoretically meaningful way. Although the content validity by Thai experts showed that items in the FCAI scale captured the family care actions during hospitalization, a number of items had to be removed due to lack of variability or discrimination. The deleted items represented the common caregiving experiences. Had these low variance items not been deleted, correlations with other measures would have been restricted and the scale's value would have been limited. One way to increase opportunities for variability would be to have more response options within each item. Though increasing the response options might yield sufficient variability, such a remedy might also cause fatigue or bore the respondents, lowering reliability of their responses.

Cronbach's alpha was not suitable for use in reporting the reliability of the amount of family care actions in this study because it is an index of internal consistency that is based on the homogeneity of the items in a scale (Allen & Yen, 2002; Nunnally, 1978; Polit & Hungler, 1999). The types of family care actions in the FCAI, however, were not dependent on one another. For example, caregivers who brought the elder's favorite food might not bring books or magazines. Therefore, the responses might not reflect items sharing a common latent variable. A test-retest reliability estimate of the FCAI scale is needed to define reliability in terms of the scale's consistency or stability.

Psychometric Properties of FCAI Strain

The evidence of validity of strain from family care action (the 7-item FCAI Strain) was demonstrated. The hypotheses were supported; that is, strain from family care actions was negatively related to mutuality and preparedness and positively

related to caregiver role strain from care activities, worry, and global strain at 2 weeks post discharge. The correlations were in the vicinity of .17 to .38 (see Table 14). One possible explanation for the weak correlations is the restriction of range of responses or the floor effect. The scores on the FCAI Strain were concentrated in a narrow range from 0 to 1.71, with most scores toward the low end (0). In addition, the total variance explained by the 7-item FCAI Strain was only 33.9%. However, the concurrent and predictive validity of the FCAI Strain were supported in a meaningful way. The reliability of the scale was found to be acceptable; a Cronbach's alpha was .77. Although the scale had adequate reliability and validity in this study, any correlation with FCAI Strain must be interpreted with caution.

The Nature of the Caregiving Role in the Hospital

The characteristics of the caregivers in this study were the same as those of caregivers in other studies in Thailand. The majority were middle-aged women and/or daughters of the hospitalized elders (Arnantapunpong, 1995; Chaoum et al., 1996; Intarasombat et al., 1996; Saenmanoch, 1998; Sampatanukul, 1999; Yamvong, 1995). The study showed that despite the fact that age was not significantly related to the amount of family care actions in the hospital, younger caregivers are more likely to experience strain than older caregivers. This may be due to the fact that younger caregivers often have additional responsibilities, including caring for children and employment outside the home that may conflict with their desire to provide care for the hospitalized elders. These findings are consistent with other studies in the U.S. (Kramer & Kipnis, 1995; Montgomery et al., 1985) in that younger caregivers had a higher level of burden than older caregivers.

Consistent with other studies in Thailand and in the U.S., females performed more family care actions than did male family caregivers (Archbold et al., 1990; Chaoum et al., 1996; Saenmanoch, 1998; Sampatanukul, 1999; Wirojratana, 2002; Yamvong, 1995), but the level of strain was not significantly different between female and male caregivers. This may be because females had a sense of duty to care for their family members when they became ill or got older. Although females performed more caregiving activities than males, they did not experience a higher level of strain than males.

Daughter caregivers and spouse caregivers performed more family care actions than other caregivers. Although more responsibility was placed on daughters or spouses for providing family care actions to the elders, the level of strain was not found to be significantly different among different types of relationships. This may be the result of daughter caregivers having a sense of filial obligation for taking care of their elder parents and for spouse caregivers having a sense of marital obligation for providing care to their elder spouse.

As hypothesized, higher levels of mutuality were associated with performing more family care actions, as well as with reporting less strain from family care actions during a hospital stay. Caregivers who had higher mutuality scores with the hospitalized elder performed more family care actions ($r = .22, p = .001$) and experienced less strain from family care actions during hospitalization ($r = -.19, p = .005$). It is especially true in the Thai culture that the family is the main source of care to elders (Chayovan & Knodel, 1997; Jitapunkul & Bunnag, 1997; Wongsith & Siriboon, 1999). Thai people have a strong sense of respect for their elder parents that

is derived from their Buddhist religious traditions and the cultural imperative of filial obligation. Buddhist tradition stresses the concept of “parent repayment” or the value of “Katunyu Katavedi” in which children are expected to repay their parents for having borne and raised them (Kespichayawattana, 1999; Knodel et al., 1991; Wongsith et al., 1996). More than half the hospitalized elders in this study were being cared for by their daughter (49.1%) or son (14.5%) (see Table 6). These children perceived that caring for an elder parent was not a burden. In prior studies, caregivers reported that they saw their caregiving as an opportunity to take care of their parents and, in some ways, to pay them back (Kespichayawattana, 1999; Sirapo-ngam et al., 2000).

The study findings also support that the amount of family care actions performed was inversely related to strain from family care actions during hospitalization ($r = -.16, p = .02$). Due to the correlational study design, a significant relationship between the amount of family care actions and strain from family care actions cannot prove that the strain from family care actions was caused by the amount of family care actions. This relationship might be confounded by other variables associated with either the amount of family care action or the strain from family care actions, for example, the nature of the illness or the nature of the unit.

According to the theory of symbolic interactionism, symbolic interactionists view contextual variables as contributing factors to describe and explain the relationships among phenomena rather than causal explanations. Strain associated with performing family care actions during hospitalization may depend on how the caregiver perceives providing care to the patient and working together with the health

care team. Some caregivers perceive this as positive while others view it as negative. For example, some caregivers who helped the elder with bathing perceived this activity as easy, and they were happy to help the elder. Other caregivers, however, perceived the same activity as difficult to perform.

It is important to acknowledge that the average amount of family care actions during hospitalization was high in this sample ($M = 17.96$, $SD = 4.12$, with a range from 5 to 24). Two possible explanations may be that the study took place in a university and research hospital, and this research has confirmed that family participation is a way for providing good care to the patients and their families. Consequently, caregivers were willing to provide as much care as they could to the elders.

Even though caregivers in this study performed high levels of family care actions in the hospital, they reported low levels of perceived strain associated with family care actions during hospitalization ($M = 0.34$, $SD = 0.40$, with a range from 0 to 12). The floor effects of strain from family care actions in the hospital should be noted in that most scores on the scale were concentrated at the low end (0). One possible reason for this result might be that the family care actions were not complicated, and family caregivers were willing and able to perform these activities. Item analysis using an item difficulty index supports this possibility, as two-thirds of the 24-item FCAI had an item difficulty index higher than 0.70, indicating that caregivers commonly performed these types of caregiving activities in the hospital. Another possible explanation may be cultural response bias that the expectation of Thai families to care for elder family members and that these types of activities were already being

performed before admission. Caregivers perceived that caring for the elders in the hospital was not a burden.

In this study, caregivers who performed more activities during their elders' hospital stay felt more prepared for caring for the elder once they were discharged from the hospital. Caregivers who felt more prepared experienced less strain from family care actions during hospitalization. The average length of stay was 13.4 days in this study. It is possible that each caregiver had enough time in the hospital to develop their caregiving skills and prepare themselves for taking care of the elder at home. They also had time to modify their home environment before the elder was discharged home. Therefore, on the average, the more family care actions performed, the more caregivers felt prepared. In addition, the more caregivers felt prepared, the less strain they experienced. It is more likely in the U.S. that family members experience higher levels of strain at the time of discharge because they had less time to prepare for the elder's return home due to shorter hospital stays (Bull, Jervis, & Her, 1995).

From the investigator's experience as a nurse, nurses are in an ideal position to guide family caregivers and facilitate continuity of care for hospitalized elders. They need adequate time for careful assessment and care planning immediately upon admission of the patient, however, family caregivers also need time to develop caregiving skills and to modify the home environment before the elders are discharged home. The collaboration among family caregivers and health care professionals could increase the caregiver's preparedness, thereby reducing caregiver role strain (Archbold et al., 1995).

The Nature of the Caregiving Role at Home

Family members are the key persons providing care to elders at home in the U.S. and Thailand (Archbold et al., 1990, Bull, 1992; Chayovan & Knodel, 1997).

Caregiving experiences at home in this study demonstrated that the amount of care activities at home was positively correlated with strain from care activities ($r = .14, p = .043$), worry ($r = .36, p < .001$), and global strain at home ($r = .19, p = .004$).

Caregivers who did more care activities felt more strain at home. This was consistent with the study by Wirojattana (2002) which showed that the amount of care activities was positively correlated with strain from care activities, worry, and global strain.

One possible explanation for the findings might be that caregivers change their role from a supportive one during hospitalization to that of a primary care provider for the elders at home. Caregiving responsibilities were added to those associated with maintaining their household, family and/or employee roles, thus, increasing their perception of strain. Time limits were placed on their personal privacy, their social life, and time with their family. Some caregivers could also experience conflicts in performing their jobs and caring for the elders at home.

Archbold et al. (1990) developed the three caregiver role strain measures used in this study. Correlations among these three measures have not been published. In this study, strain from care activities and global strain had a moderately high correlation ($r = .51, p < .001$); strain from care activities and worry had a small correlation ($r = .26, p < .001$); and worry had a moderate correlation with global strain ($r = .38, p < .001$). Although all three of these measures assessed caregiver role strain at home, the measure for examining strain from care activities looked at the strain associated with

specific care activities while both worry and global strain measured general strain from the caregiving situation.

Linkage between the Nature of Caregiving in the Hospital and Home

The evidence from this study supports the conclusion that caregiving experiences during hospitalization were related to the caregiving experiences at home. First, greater involvement in family care actions during hospitalization was associated with greater levels of care activity at home ($r = .37, p < .001$). Caregivers who performed more family care actions in the hospital were more likely to do more care activities at home. It could be because they need more care.

Second, caregivers who had higher levels of strain associated with family care actions during their elders' hospital stay also had higher levels of caregiver role strain from care activities, worry, and global strain at 2 weeks post discharge. Therefore, the transition period from hospital to home may be an ideal time to begin interventions to prevent or reduce caregiver role strain at home.

The results of this research indicate that the amount of family care actions during hospitalization was not significantly related to caregiver role strain from care activities, worry, and global strain at home. The differences in the caregiving situation between hospital and home may offer an explanation for this finding. In this study, family care actions during hospitalization were not complex, unlike care activities at home. The family care actions in the hospital were specific to providing care to the elder and working together with the health care team, such as bringing their favorite food and providing information about the elder to hospital staff. However, caregiving role strain from care activities at home was due to specific and more complex

caregiving activities, such as addressing mobility and protection issues, illness care, and managing dementia and difficult behavior.

In addition, the results demonstrated that the direction of the relationship between the amount of care activities and strain from care activities was different between the hospital and home. During hospitalization, a negative relationship was found between the amount of care performed and the strain experienced, whereas at home a positive relationship was found between the amount of care performed and the strain experienced. There might be a third variable that influences both the amount of care activities caregivers do and the strain caregivers experience. Because caregivers have a supportive role during hospitalization and family care actions in the hospital are easy to perform. Caregivers might not experience high strain from performing these activities in the hospital. However, caregivers are the primary care providers at home and caregiving activities at home are complex, so caregivers might experience high strain from performing these activities at home. In addition, the measure of role strain in the hospital was global and not linked with specific care actions whereas the measures of role strain at home were directly linked to specific caregiving activities.

Third, correlations among mutuality, preparedness, and caregiver role strain were supported as hypothesized. Higher levels of mutuality in the hospital were significantly correlated with lower levels of caregiver role strain from care activities ($r = -.28, p < .001$) and global strain ($r = -.39, p < .001$) at home. Higher levels of preparedness for caregiving at home were also significantly correlated to lower levels of caregiver role strain from care activities ($r = -.28, p < .001$), worry ($r = -.15, p < .05$) and global strain ($r = -.36, p < .001$) at home. The results were consistent with

previous studies about caregiving at home in the U.S. and Thailand (Archbold et al., 1990; Wirojratana, 2002). Mutuality and preparedness for caregiving were inversely related to caregiver role strain. The positive relationship between a caregiver and an elder and how prepared a caregiver felt about caregiving at home are predictors of caregiver role strain at home.

Moderation Effect of Preparedness

Preparedness was hypothesized as a moderator of: (a) the relationship between the amount of family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge; and (b) the relationship between the strain from family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge. If the moderator hypotheses were supported, then preparedness would influence: (a) the direction of the relationship between the amount of family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge; or (b) the strength of the relationship between the strain from family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge.

Previous studies have demonstrated that preparedness is strongly predictive of lower levels of caregiver role strain in family caregivers for elders (Archbold et al., 1990). If the moderator hypothesis was supported, then it may be that the group of caregivers who felt more prepared performed more family care actions in the hospital and experienced lower caregiver role strain at home, whereas those who felt less prepared performed more family care actions in the hospital, yet experienced higher

caregiver role strain at home. Moreover, the positive relationship between the strain from caregiving activities in the hospital and those performed at home might be stronger in the group of caregivers who felt less prepared than the group who felt well prepared.

However, in this study, preparedness did not moderate caregiver role strain from care activities, worry, or global strain 2 weeks post discharge. Based on the statistical findings, the moderator hypotheses were not supported because the interactions (the amount of family care actions by preparedness and the strain from family care actions by preparedness) were not statistically significant. It is best if preparedness—the moderator in this study—not be correlated with independent variables (i.e., amount of family care actions and strain from family care actions) and dependent variable (i.e., caregiver role strain from care activities, worry, and global strain), as this would yield a more obvious and explainable interaction term (Baron & Kenny, 1986). However, in the real world, the amount of family care actions, strain from family care actions, preparedness, and caregiver role strain are correlated in complex ways. In this study, preparedness was significantly correlated with the independent variables and the dependent variables.

A lack of moderation implies that preparedness did not affect the direction of the relationship between the amount of family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge. In addition, preparedness did not affect the strength of the relationship between the strain from family care actions in the hospital and caregiver role strain from care activities, worry, and global strain 2 weeks post discharge. It is also possible

that the amount of family care actions and strain from family care actions scales do not have the variability to explain this relationship. Little variation in responses to the scales was found due to the dichotomous format of the amount of family care actions scale and the restriction of range and floor effect that were found with the measure of strain from the FCAI. Additional research in this area is needed to further understand this relationship.

However, the association between preparedness and caregiver role strain from care activities, worry, and global strain at 2 weeks post discharge was supported in this study. Higher levels of preparedness were significantly correlated with lower caregiver role strain from care activities, worry, and global strain. Preparedness for caregiving at home may be a predictor of caregiver role strain from care activities, worry, and global strain at home.

These findings indicate that the concept of preparedness is relevant in the Thai hospital setting. In Thailand, Sampatanukul's study (1999) demonstrated that caregivers learned new skills and modified their home environment before elders were discharged home. How caregivers evaluate how prepared they are to handle the caregiving role before the elders are discharged home may be a strong predictor of caregiver role strain at home. This study's findings may sensitize nurses to assess, before elders are discharged, how prepared family members feel they are for performing caregiving activities at home. Assessment of preparedness in the hospital may reflect the caregiver's competence before discharge home. Interventions designed to improve caregiver preparedness before discharge may be needed. Improved preparedness could support a smooth transition from hospital to home.

Limitations to the Study

The study's limitations must be taken into consideration when viewing these results. First, limited variability was found with the 24-item FCAI and 7-item FCAI Strain. The yes/no format for determining the amount of caregiving activities in the hospital might not be a suitable approach in the Thai culture. It is generally understood that a shortcoming of the yes/no format is that each item has a limitation in possible variance and covariance. This limitation became especially pronounced in this study, because some of the activities on the scale were performed by all the Thai caregivers, and some of the caregivers performed most of the activities. A scale that provides more than two possible responses might improve the minimal variance of items in the scale. It might also be helpful for the scale to collect information about the frequency caregivers perform each of the activities. The possible responses might range from never to daily; for example: never, 1-2 times a week; 3-6 times a week; and daily. Another possible response that might need to be added is "not applicable." As stated earlier, however, more response options would increase the length of the questionnaire, presenting the possibility that respondents will become fatigued.

The 7-item FCAI Strain had a floor effect. Most scores were crowded into the lower range of the test-score distribution. The actual range of score was concentrated in a narrow range. Any correlation with FCAI strain must be interpreted with caution.

Second, a possible loss of content validity due to the effect of deleting certain items should be noted. Deleting items because of redundancy may have limited the results of the study. Two of the items were deleted because a minority of the reviewers rated them as redundant; their inclusion may have impacted the study results.

Nevertheless, deletion of items due to zero variance or low discrimination may fail to capture caregiving activities that naturally occur in everyday life during hospitalization, for example, these items asked the extent of what family caregivers said or did during the process of discharge. All discharge items were deleted from the scale, because almost all caregivers who participated in the study performed all the discharge activities. The discharge activities deleted included: help the elder to get ready to go home, take things home, ask hospital staff to clarify the discharge instruction, participate in discharge instructions, learn new information and things about the elder's follow-up care at home, pick up the medicine, and take the elder home. Therefore, no item capturing caregiving activities during discharge was left in the scale.

Third, the reliability of the FCAI scale needs to be determined. The most reasonable estimate of the FCAI scale's reliability would likely come from a test-retest correlation. Test-retest correlation estimates reliability in terms of consistency or stability. Using this approach, a scale is reliable to the extent that the same results or a perfectly linear relationship are obtained on two administrations of the same scale (Allen & Yen, 2002; Polit & Hungler, 1999).

Fourth, caregiver self-reports may overestimate the extent of care provided to the elders during a hospital stay and lower estimate strain experienced because of reinforcement from social desirability. Item responses might be distorted, for example, if a caregiver feels guilty that he/she could not provide care for an elder, he/she may not give an accurate report of family care actions and strain experienced. The caregivers might also present themselves in a way that society regards as positive.

The fifth limitation of this study is that response bias was found with the data collection procedure for the third interviews, those that were conducted at 2 weeks post discharge. The caregivers were given the choice to either complete the questionnaire in person or return the questionnaire by mail. A significant difference in responses was found on caregiver role strain from care activities between those who completed the questionnaire in person and those who returned the questionnaire by mail. Caregivers who mailed questionnaires reported a higher level of caregiver role strain from care activities ($M = .94$) than those who completed the questionnaire in person ($M = .66$). Using a U.S. sample, Archbold et al. (1995) found no difference between the responses from in-person interviews and mailed questionnaires on scores for caregiver role strain from care activities.

Finally, due to potential sample bias, the results from this research cannot be generalized to situations outside the specific research setting. A convenience sample approach was used to select a sample from an accessible population from one university hospital. Although the characteristics of the sample in this study may be representative of Thai caregivers of elderly family members, it would be a mistake to assume that the participants in this study are representative of all intended groups. Most of the participant in the study were fairly well educated, were from fairly prosperous families and lived in a large city. Although an effort was made to include cognitively impaired elders in this study, the majority (90%) of hospitalized elders were cognitively intact; the results were also limited to caregivers of cognitively intact elders. In addition, the Hawthorne effect—in this case, the knowledge of being included in the study influencing positive changes in the participants' behaviors

—could also be a factor (Polit & Hungler, 1999). Responses from a population of caregivers of hospitalized elders in one care setting may not be representative of those in another setting. The concept of family participation has been acknowledged in this hospital setting, so the results may reflect the impact of the study and the concept of family participation the study hospital. Therefore, the results may not be generalized to more common settings.

Implications for Theory, Practice and Research

Theory

A theoretical view based on symbolic interaction broadens our understanding of the nature of the Thai family caregiving phenomena during hospitalization and at home. The hypotheses about the relationships between concepts being measured were supported by this research. The amount of family care actions during hospitalization was positively related to mutuality and preparedness. Inversely, strain from family care actions during hospitalization was negatively related to mutuality and preparedness. Strain from family care actions during hospitalization was positively related to caregiver role strain 2 weeks post discharge. In this study, caregivers who had high levels of mutuality performed more family care actions in the hospital. This was consistent with the construct validity of the FCAI in Li's study (Li et al., 2002), that we can measure family care actions in the hospital. The results serve as evidence of the validity of the Thai FCAI scale. In addition, and as expected, the relationships between mutuality, preparedness, and caregiver role strain were supported. Caregiver role strain was negatively related to mutuality and preparedness, and preparedness was

a predictor of caregiver role strain. This was consistent with the theoretical framework of Archbold and colleagues' study (1990).

The model used for this study could help health care professionals improve their understanding about the caregiving process as it transitions from hospital to home. However, the moderator–interaction effect of preparedness was not confirmed. There may be other concepts, including adequacy of resources and social support that affect the transition period from hospital to home. This of study needs to be explored further, with particular attention to how caregivers view their abilities to perform their caregiving role and to resources needed to take care of elders at home.

Practice

The population of elders in the health care system today is growing. The family is the main institution for taking care of elders and significantly influences an elder's health and well-being. The financial concern about nursing home placement as well as the cultural pressure against such a placement in Thailand precludes developing alternatives to family caregivers. Family caregivers take care of elders when they are hospitalized and prefer to ask their elder family members to stay with them following discharge. This study demonstrated that caregiver preparedness was inversely related to caregiver role strain at 2 weeks post discharge. It might be important to assess how caregivers identify their preparedness prior to discharge. When nurses identify caregivers who report low preparedness, they should assess the family care needs and provide information to meet these needs. Caregivers may benefit from that information and improve their caregiving skills, enabling them to feel more prepared before discharge.

The interpersonal relationships among patients, family members, and health care professionals in the health care setting are important. Most acute care hospitals are primarily treatment-oriented and are managed primarily by physicians rather than viewing the family as part of a team. In the hospital setting, Baggs and Schmitt (1988) defined nurse-physician collaboration as working together and sharing responsibility for problem-solving and decision-making to set and carry out plans for patient care. The patients and their family members should also be recognized as partners. Health professionals should view the family caregiver as a significant contributor to the health of the elder, and they should encourage families to take part in family care during hospitalization.

Based on the findings of this study, the amount of family care actions performed by the caregivers during hospitalization was positively related to how well the caregiver was prepared before discharge. Family members could be encouraged to provide daily care for the hospitalized patient to update their skills or maintain their caregiving role. Family members need to learn and prepare themselves to take care of their elder family members post hospitalization, because they will live with and care for the elderly at home during the recovery period.

The goal for family participation is to help caregivers maintain the continuity of care during the transition from hospital to home and ensure the facilitation of a smooth transition between these care settings. To increase the level of family participation in hospital care, nurses should provide opportunities and support for caregivers who wish to increase their caregiving role in the hospital (Haggmark, 1990; Sharp, 1990). The extent of family participation may help researchers to understand

how people enter into or develop the role of caregiver in the provision of care during hospitalization and then how family care actions contribute to preparedness before discharge.

Previous studies in Thailand also demonstrate the effectiveness of family participation on patient and family/caregiver outcomes (i.e., improved functional status of elders and increased elder and family satisfaction with nursing care) (Arnantapunpong, 1995; Chaoum et al., 1996; Intarasombat et al., 1996; Saenmanoch, 1998; Sampatanukul, 1999; Yamvong, 1995). To provide quality care, it is very important that nurses establish trust with hospitalized elders and their family caregivers. Nurses are in a key position to listen to elders and family caregivers and to promote partnerships with them by involving them with care planning, providing information, and encouraging collaborative activities. Nurses could be challenged to develop procedures to maintain the functional status of hospitalized elders by encouraging the elder to do for themselves what they are functionally capable of doing, rather than letting their caregiver do these things for them.

Research

It is important that the reliability of the Thai FCAI scale be established. A test-retest correlation may yield the most reasonable estimate of the scale's reliability. However, family care actions that caregivers performed might not be stable across the time interval. A reliability coefficient in the vicinity of .60 or .70 might be acceptable, depending on the level of patient improvement and the time interval used. After the Thai FCAI scale is found to be reliable, future research might include using the scale with a narrow sample—such as caregivers of hip fracture patients, stroke patients, or

cancer patients—to determine the similarities and differences in caregiving activities. A longitudinal study might be useful to help researchers understand the correlations among related variables during the transition period from hospital to home. The time period at 2 weeks in this study was brief. The results might differ from those at 6 weeks after the elder's discharge from the hospital.

Strain measure in the hospital need to be specific with the care activities in the hospital. It is possible to measure strain based on 24 item FCAI. The questions will ask “how hard is it for you to perform for each type of activity?” The measure—role strain in the hospital—will be directly linked to specific caregiving activities. The relationship between the amount of care performed and the strain experienced might help health care providers better understand the caregiving context in the hospital.

Results demonstrated that the extent to which family care actions performed in the hospital was positively related to caregivers' preparedness before discharge and caregivers' preparedness inversely associated with the strain of family caregivers at home. These findings also suggest that intervention to increase preparedness and lower the level of strain at home should start in the hospital. Encouraging families to take part in family care during hospitalization by sharing responsibilities for care actions between family members and health care professionals might be a way to increase preparedness before discharge.

Cultural differences influenced the results of this study. A qualitative study might be needed to refine variables of interest that might relate the caregiving phenomenon during hospitalization in the Thai culture. Based on the open-ended question of the FCAI, different family care actions emerged in the Thai culture,

including massaging the elders, doing passive exercise with the elders, making a merit for the elders, and teaching other relatives to take care of the elders.

A qualitative study might help to further understand the phenomena of family caregiving during the transition period from hospital to home in the Thai culture. The researcher might ask a general research question to invite caregivers to explain or describe the caregiving experiences according to their perception. For example, “could you tell me what it is like to be a caregiver for an elder following discharge home?” or “how is caregiving at home different from the caregiving in the hospital?”

Caregiving experiences have both positive and negative consequences on the caregiver's life. The current study focused on the negative outcomes associated with caregiving and sought to understand the relationships between the strain during hospitalization and at home. Future studies might focus on the positive meanings associated with providing care to hospitalized elders (e.g., reward of caregiving, satisfaction with care) to further explore and capture the caregiving phenomenon in the Thai culture. The effect of family participation on the elder's and family member's satisfaction with nursing care during hospitalization is evident in Thailand (Arnantapunpong, 1995; Intarasombat et al., 1996; Saenmanoch, 1998; Sampatanukul, 1999; Yamvong, 1995). Satisfaction with care might be another variable that relates to the amount of family care actions performed during hospitalization. It might be hypothesized that caregivers who participate more in care will feel more satisfaction with care during hospitalization.

Summary

The caregiving experiences during hospitalization are related to caregiving experiences at home during the first 2 weeks following discharge. The transition period immediately following the elders' hospitalization is stressful for caregivers. Because preparedness in this research was related to strain at home, it makes sense to increase preparedness for purposes of reducing caregiver role strain at home. Researchers are looking for the most effective ways to help caregivers improve their skills and prepared for taking care of elders before the elders are discharge home. Few studies have examined caregiving during the transition period following hospitalization. Future studies are needed to understand the caregiving phenomena during the transition period from hospital to home. Consequently, it would be important for future research to examine the caregiving phenomena that occurs in the transition from hospital to home. The goal of research in this area would be to improve hospital care for elders and their families for purposes of smoothing the transition from hospital to home, ultimately resulting in improved quality of life for elders and caregivers at home.

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Appendix A

Approval for Using the 81-item FCAI

Memo for Record

Please note, Dr. Hong Li, who developed the 81-item FCAI, granted permission for it to be used with the study on January 28, 2002. The study entitled was “The effects of mutuality and preparedness during hospitalization on caregiver role strain in the transition from hospital to home” with an approximately sample of 80 caregivers of family members. The study entitled has been changed to “Psychometric Analysis of Family Care Actions Index (FCAI) in the Thai Population” with an approximately sample of 220 caregivers of hospitalized elders. The investigator informed Dr. Hong Li of changes made and she also granted permission for it to be used with this study.

**Request to Use the
Family Care Actions Index**

We request to use:

 x The entire Family Care Actions Index

Please complete the information requested below:

Name: Supreeda Monkong
 Title: Third year doctoral student, School Of Nursing, OHSU
 Address: 707 SW Campus Drive
Portland, OR, 97201

We plan to use the Inventory or Scale(s) in the study entitled:

The effects of Mutuality and Preparedness during hospitalization on caregiver role strain in the transition
from hospital to home

with an approximately sample of 80 caregivers of family members with the following characteristics:

Post Hip Fracture Surgery at 2 week period

We agree to forward the scale level statistics (mean, standard deviation) and the results of the internal consistency analysis to Dr. Hong Li when the study is complete.

Supreeda Monkong
 Signature of person initiating request

Jan 28, 2002
 Date requested

I approve the use the instrument for the specified use.

Hong Li
 Signature,
 Hong Li, RN., PhD
 Assistant Professor
 School of Nursing,
 University of Rochester
 601 Elmwood Avenue, Box SON
 Rochester, NY 14642
 Phone: 585-275-8863
 Email: HongS-Li@urmc.rochester.edu
 FAX: 585-273-1270

January 28, 2002
 Date of approval

**Request to Use the
Family Care Actions Index**

We request to use:

 X The entire Family Care Actions Index

Please complete the information requested below:

Name: Supreeda Monkong
 Title: Third year doctoral student, School Of Nursing, OHSU
 Address: 3111 SW 13th Ave. # 15
Portland, OR, 97201

We plan to use the Inventory or Scale(s) in the study entitled:

Psychometric Analysis of Family Care Action Index (FCAI) in the Thai Population

with an approximately sample of 220 caregivers of hospitalized elders

We agree to forward the scale level statistics (mean, standard deviation) and the results of the internal consistency analysis to Dr. Hong Li when the study is complete.

Supreeda Monkong
 Signature of person initiating request

August 5, 2002
 Date requested

I approve the use the instrument for the specified use.

Hong Li
 Signature,
 Hong Li, RN., PhD
 Assistant Professor
 School of Nursing,
 University of Rochester
 601 Elmwood Avenue, Box SON
 Rochester, NY 14642
 Phone: 585-275-8863
 Email: HongS-Li@urmc.rochester.edu
 FAX: 585-273-1270

February 26, 2003
 Date of approval

Appendix B

The Approval of the OHSU Institutional Review Board (IRB)

OREGON HEALTH & SCIENCE UNIVERSITY
Research Compliance & Assurance, L106 (503) 494-7887

MEMO

Date: July 30, 2002
To: Supreeda Monkong RN, MS RH 609
 Deborah C. Messecar SN4S
From: Gary T. Chiodo, DMD, Chair, Institutional Review Board, L106 *7/30/02*
 Susan Hansen, MD, MPH, Co-Chair, Institutional Review Board, L106
 Charlotte Shupert, PhD, Manager, Research Compliance and Assurance, L106
Subject: **7222 EXP**
Psychometric Analysis of Family Care Action Index (FCAI) in the Thai Population.

Initial Study Review Protocol/Consent Form Approval

- ☒ Your protocol/consent form is approved for 1/4/02 effective 7/20/02.
 You may use only copies of the attached approved consent form for the informed consent process. Please write the date of approval in the initial / annual approval date box in the upper right hand corner of the consent form. If you submit a revised consent form for approval during the coming year, you should type the initial approval date in this box when revising the form.
- ☐ This study met the criteria established for waiver of consent in accordance with 45CFR46.116(d)(1-4). No consent form is required.
- ☒ This study met the criteria for EXPEDITED IRB review based on Category # 7¹ because this research employs survey and interview methodologies.

This approval may be revoked if the investigators fail to conduct the research in accordance with the guidelines found in the Roles and Responsibilities document (<http://www.ohsu.edu/ra/rso/rgc/randp.pdf>). Please note that any proposed changes in key personnel must be submitted to the IRB via a PRAF and approved prior to initiating the change. If you plan to discontinue your role as PI on this study or leave OHSU, you must arrange either (a) to terminate the study by so notifying the IRB and your department head, or (b) propose to transfer the responsibility of the PI to a new faculty member using a PRAF.

Investigators must provide subjects with a copy of the consent form, keep a copy of the signed consent form with the research records, and place a signed copy in the patient's hospital/clinical medical record (if applicable).

If this project involves the use of an Investigational New Drug, a copy of the approved protocol must be forwarded to the Pharmacy and Therapeutics Committee (Pharmacy Services - Investigational Drugs, CR9-4).

If this is a cancer study, we will notify the Oregon Cancer Institute (OCI) of the IRB approval. As the Principal Investigator, you are responsible for providing the OCI with copies of the final approved protocol/consent form.

1. 63 FR 60364-60367 (November 9, 1998).

Appendix C

The Approval of the Human Subject Review Committee,
Ramathibodi Hospital, Mahidol University, Thailand



คณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

ถนนพระราม 6 กทม. 10400

โทร. (662) 245-5704, 201-1296 โทรสาร (662) 246-2123

Faculty of Medicine, Ramathibodi Hospital, Mahidol University

Rama VI Road, Bangkok 10400, Thailand

Tel. (662) 245-5704, 201-1296 Fax (662) 246-2123

**Documentary Proof of Ethical Clearance Committee on Human Rights
Related to Researches Involving Human Subjects
Faculty of Medicine, Ramathibodi Hospital, Mahidol University**

950/2002 (I)

Title of Project	Psychometric Analysis of Family Care Action Index (FCAI) in the Thai Population
Protocol Number	ID 09-45-24
Principal Investigator	Miss. Supreeeda Monkong
Official Address	Department of Nursing Faculty of Medicine, Ramathibodi Hospital Mahidol University

The aforementioned project has been reviewed and approved by Committee on Human Rights Related to Researches Involving Human Subjects, based on the Declaration of Helsinki.

**Signature of Chairman
Committee on Human Rights Related to
Researches Involving Human Subjects**

Krisada Ratana-olarn

Prof. Krisada Ratana-olarn, M.D., FRCST, FICS.

Signature of Dean

Prakit Vathesatogkit

Prof. Prakit Vathesatogkit, M.D., ABIM., FRCP.

Date of Approval

September 18, 2002



คณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

ถนนพระราม 6 กทม. 10400

โทร. (662) 245-5704, 201-1296 โทรสาร (662) 246-2123

Faculty of Medicine, Ramathibodi Hospital, Mahidol University

Rama VI Road, Bangkok 10400, Thailand

Tel. (662) 245-5704, 201-1296 Fax (662) 246-2123

**Documentary Proof of Ethical Clearance Committee on Human Rights
Related to Researches Involving Human Subjects
Faculty of Medicine, Ramathibodi Hospital, Mahidol University**


No. 990/2002 (D)

Title of Project	Psychometric Analysis of Family Care Action Index (FCAI) in the Thai Population
Protocol Number	ID 09-45-24
Principal Investigator	Miss. Supreeda Monkong
Official Address	Department of Nursing Faculty of Medicine, Ramathibodi Hospital Mahidol University
Document reviewed	1. Informed consent form (English version) 2. Caregiver Information Sheet 3. Caregiver of Cognitive Impaired Older Person Information Sheet 4. Patient Information Sheet

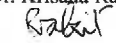
The aforementioned documents have been reviewed and acknowledged by Committee on Human Rights Related to Researches Involving Human Subjects, based on the Declaration of Helsinki.

Signature of Chairman

Committee on Human Rights Related to
Researches Involving Human Subjects


Prof. Krisada Ratana-olarn, M.D., FRCST, FICS.

Signature of Dean


Prof. Prakrit Vathesatogkit, M.D., ABIM., FRCP.

Date of Approval

October 16, 2002

Appendix D

Consent Form (English and Thai)

Informed Consent Form

Study Title: Psychometric Analysis of Family Care Actions Index (FCAI) in Thai Population

Principal Investigator: Supreeeda Monkong, RN, MSN

Subject Name: _____

Subject Age: _____

Subject's Consent

_____ Subject Name _____ has known the details of the study clearly, including the benefits and risks of the study. I am willing to participate in this study. For any questions about the study, I can always ask the researcher. I may refuse to participate or withdraw from this study at anytime. Additionally, the researcher will keep my personal information confidentially and disclose only in the form of research conclusion. My personal information will be used for academic purpose only.

Signature of participant _____

Signature of witness _____

Signature of witness _____

Date _____

Researcher's Explanation

I have clearly explained the details of the study to the participant, including the benefits and risks that might have.

Signature of investigator _____

Date _____

In case that the participant is unable to read, the researcher must read all the informations in this consent form to the participant. The participant will sign or print his/her fingerprint to consent in this study.

Patient Information Sheet

Study Title: Psychometric Analysis of Family Care Actions Index (FCAI) in Thai Population

Principal Investigator: Supreeda Monkong, RN, MSN

Co-investigator: Deborah Messecar, RN, PhD
Deborah Eldredge, RN, PhD
Nancy Perrin, PhD

Place: Ramathibodi Hospital

Contact Person:

For questions about this study, contact the researcher, Supreeda Monkong at 0-2552-8204. If you have any questions about your rights as a research participant, you may contact Ramathibodi Human Subject Protection Office at 0-2201-1544

Funding Source or Sponsor: N/A

Background

Currently, more older persons are being admitted to the hospital. However, they usually stay in the hospital for only a shorter period of time and most of their recovery period are spent at home. Families are the main providers of care to the older persons and are expected to ease the transition from the hospital to the home. There is a need for health care providers to understand and support the roles that family members assume during hospitalization and transition period. Yet, there is no family caregiving measure during hospitalization in Thailand. The Family Care Actions Index (FCAI), which measures family care actions during hospitalization, has never been tested in Thai culture. This is the first study to determine psychometric properties of the FCAI use in the Thai culture.

Purpose

The purpose of the study is to know whether a questionnaire, the Family Care Actions Index (FCAI), really captures what kind of things you have done to help your older family member while he/she has been in the hospital.

Procedure:

In order to proceed with this study, both you and your caregivers are willing to participate. Your participation involves:

1. Giving permission to talk with your caregiver about what kinds of thing he/she has done in caring for you while you are in the hospital and 2 weeks after you are discharged home.

2. Giving permission to review your hospital medical record for information such as diagnosis, treatment plans, and how are you doing at the time of hospital discharge.

You will not be asked any questions. Interviews will be administered to your caregiver at the day before discharge, the day after discharge, and 2 weeks later at outpatient clinic. The total time involvement, should your caregiver agree to participate, will be 2 to 2.5 hours.

Benefits and Risks

You may or may not personally benefit from participating in this study. However, your caregivers may contribute new information, which may benefit hospitalized elders and caregivers in the future.

There are no anticipated risks for your caregivers in completing the questionnaires. It is possible that some of the questions may seem very personal and make your caregiver feel uncomfortable. Your caregiver may refuse to answer any of the questions or withdraw from the study at anytime.

Confidentiality

Efforts will be made to keep your personal information confidential. Neither your name nor your identity will be used for publication or publicity purposes. The information from your hospital medical record will not be shared with your family members. Research records may be reviewed and/or copied by the Oregon Health & Science University Institutional Review Board and Ramathibodi Human Subject Protection Office. Under Oregon Law, suspected elder abuse must be reported to appropriated authorities.

Caregiver Information Sheet

Study Title: Psychometric Analysis of Family Care Actions Index (FCAI) in Thai Population

Principal Investigator: Supreeda Monkong, RN, MSN

Co-investigator: Deborah Messecar, RN, PhD
Deborah Eldredge, RN, PhD
Nancy Perrin, PhD

Place: Ramathibodi Hospital

Contact Person:

For questions about this study, contact the researcher, Supreeda Monkong at 0-2552-8204. If you have any questions about your rights as a research participant, you may contact Ramathibodi Human Subject Protection Office at 0-2201-1544

Funding Source or Sponsor: N/A

Background

Currently, more older persons are being admitted to the hospital. However, they usually stay in the hospital for only a shorter period of time and most of their recovery period are spent at home. Families are the main providers of care to the older persons and are expected to ease the transition from the hospital to the home. There is a need for health care providers to understand and support the roles that family members assume during hospitalization and transition period. Yet, there is no family caregiving measure during hospitalization in Thailand. The Family Care Actions Index (FCAI), which measures family care actions during hospitalization, has never been tested in Thai culture. This is the first study to determine psychometric properties of the FCAI use in the Thai culture.

Purpose

The purpose of the study is to know whether a questionnaire, the Family Care Actions Index (FCAI), really captures what kind of things you have done to help your older family member while he/she has been in the hospital.

Procedure

In order to proceed with this study, both you and the older person you care for are willing to participate. Your participation as the caregiver involves responding to the questionnaires. These questionnaires are about what is it like for you to be a caregiver of an older person in the hospital and 2 weeks after he/she is discharged home. The questions will be answered in interviewed format.

1. The first interview will take place while the older person you provide care to is in the hospital.
2. The second interview will be a follow-up telephone call on the day after discharge.
3. The third interview will take place in outpatient clinic 2 weeks later.

The first and the third interview will take approximately 1 hour to complete. The second interview will take 10-15 minutes. The total time involvement will be 2 to 2.5 hours.

Benefits and Risks

You may or may not personally benefit from participating in this study. However, by serving as a subject, you may contribute new information, which may benefit hospitalized elders and caregivers in the future.

There are no anticipated risks involved in completing the questionnaires. It is possible that some of the questions may seem very personal and make you feel uncomfortable. You may refuse to answer any of the questions or withdraw from the study at anytime.

Confidentiality

Efforts will be made to keep your personal information confidential. Neither your name nor your identity will be used for publication or publicity purposes. The information you provide will not be shared with your older person you provide care to, doctors or nurses. Research records may be reviewed and/or copied by the Oregon Health & Science University Institutional Review Board and Ramathibodi Human Subject Protection Office. Under Oregon Law, suspected elder abuse must be reported to appropriated authorities.

Caregiver of Cognitive Impaired Older Person Information Sheet

Study Title: Psychometric Analysis of Family Care Actions Index (FCAI) in Thai Population

Principal Investigator: Supreeda Monkong, RN, MSN

Co-investigator: Deborah Messecar, RN, PhD
Deborah Eldredge, RN, PhD
Nancy Perrin, PhD

Place: Ramathibodi Hospital

Funding Source or Sponsor: N/A

Contact Person:

For questions about this study, contact the researcher, Supreeda Monkong at 0-2552-8204. If you have any questions about your rights as a research participant, you may contact Ramathibodi Human Subject Protection Office at 0-2201-1544

Background

Currently, more older persons are being admitted to the hospital. However, they usually stay in the hospital for only a shorter period of time and most of their recovery period are spent at home. Families are the main providers of care to the older persons and are expected to ease the transition from the hospital to the home. There is a need for health care providers to understand and support the roles that family members assume during hospitalization and transition period. Yet, there is no family caregiving measure during hospitalization in Thailand. The Family Care Actions Index (FCAI), which measures family care actions during hospitalization, has never been tested in Thai culture. This is the first study to determine psychometric properties of the FCAI use in the Thai culture.

Purpose

The purpose of the study is to know whether a questionnaire, the Family Care Actions Index (FCAI), really captures what kind of things you have done to help your older family member while he/she has been in the hospital.

Procedure

In order to proceed with this study, you are willing to participate. Your participation as the caregiver involves:

1. Giving permission to review the older person's hospital medical record for information such as diagnosis, treatment plan, and how is your older person doing at the time of the hospital discharge.
2. Completing the questionnaires: the questions will be answered in interviewed format. These questionnaires are about what is it like for you

to be a caregiver of an older person in the hospital and 2 weeks after he/she is discharged home.

- 2.1 The first interview will take place while the older person you provide care to is in the hospital.
- 2.2 The second interview will be a follow-up telephone call on the day after discharge.
- 2.3 The third interview will take place in outpatient clinic 2 weeks later.

The first and the third interview will take approximately 1 hour to complete. The second interview will take 10-15 minutes. The total time involvement will be 2 to 2.5 hours.

Benefits and Risks

You may or may not personally benefit from participating in this study. However, by serving as a subject, you may contribute new information, which may benefit hospitalized elders and caregivers in the future.

There are no anticipated risks involved in completing the questionnaires. It is possible that some of the questions may seem very personal and make you feel uncomfortable. You may refuse to answer any of the questions or withdraw from the study at anytime.

Confidentiality

Efforts will be made to keep your personal information confidential. Neither your name nor your identity will be used for publication or publicity purposes. The information you provide will not be shared with doctors or nurses. Research records may be reviewed and/or copied by the Oregon Health & Science University Institutional Review Board and Ramathibodi Human Subject Protection Office. Under Oregon Law, suspected elder abuse must be reported to appropriated authorities.

หนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจ

(Informed Consent Form)

ชื่อโครงการ การประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลในกลุ่มคนไทย
 ชื่อผู้วิจัย นางสาว สุปรีดา มั่นคง, RN, MSN
 ชื่อผู้ถูกวิจัย _____
 อายุ _____ เลขที่เวชระเบียน _____

คำยินยอมของผู้ถูกทำวิจัย

ข้าพเจ้า นาย/นาง/นางสาว _____ ได้ทราบรายละเอียดของโครงการวิจัยตลอดจนประโยชน์ และ ข้อเสี่ยงที่จะเกิดขึ้นต่อผู้ยินยอมคนให้ทำวิจัยจากผู้วิจัยแล้วอย่างชัดเจน ไม่มีสิ่งใดปิดบังซ่อนเร้น และยินยอมให้ทำการวิจัย ในโครงการที่มีชื่อข้างต้น และ ข้าพเจ้ารู้ว่าถ้ามีปัญหาหรือข้อสงสัยเกิดขึ้น ข้าพเจ้าสามารถสอบถามผู้วิจัยได้ และข้าพเจ้าสามารถไม่เข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ นอกจากนี้ผู้วิจัยจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะในรูปที่เป็นสรุปผลการวิจัย การเปิดเผยข้อมูลเกี่ยวกับตัวข้าพเจ้าต่อหน่วยงานต่างๆที่เกี่ยวข้องกระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผล ทางวิชาการเท่านั้น

ลงชื่อ _____ (ผู้ยินยอมคนให้ทำวิจัย)

_____ (พยาน)

_____ (พยาน)

วันที่ _____

คำอธิบายของแพทย์หรือผู้วิจัย

ข้าพเจ้าได้อธิบายรายละเอียดของโครงการตลอดจนประโยชน์ของการวิจัย รวมทั้งข้อเสี่ยงที่อาจจะเกิดขึ้นแก่ผู้ยินยอม คนให้ทำวิจัยทราบแล้วอย่างชัดเจน โดยไม่มีสิ่งใดปิดบังซ่อนเร้น

ลงชื่อ _____ (แพทย์หรือผู้วิจัย)

วันที่ _____

หมายเหตุ กรณีผู้ยินยอมคนให้ทำวิจัยไม่สามารถอ่านหนังสือได้ ให้ผู้วิจัยอ่านข้อความในใบยินยอมนี้ให้แก่ผู้ยินยอมคนให้ทำวิจัยฟังจนเข้าใจดีแล้ว และให้ผู้ยินยอมคนให้ทำวิจัยลงนามหรือพิมพ์ลายนิ้วหัวแม่มือรับทราบในการให้ความยินยอมดังกล่าวข้างต้นไว้ด้วย

เอกสารแจ้งขอมูลคำแนะนำแก่ผู้เข้าร่วมโครงการ
(Patient Information Sheet)

ชื่อโครงการ	การประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลในกลุ่มคนไทย
ชื่อหัวหน้าโครงการ	นางสาว สุปริดา มั่นคง, RN, MSN
ชื่อผู้ร่วมวิจัย	ดร. เต็มบอเล่า เมืงสิดา, RN, PhD ดร. เต็มบอเล่า เอ็ดเดร็ด, RN, PhD ดร. แนนซี เพอร์รีน, PhD

สถานที่วิจัย โรงพยาบาลดารามาธิบดี

บุคคลและวิธีการติดต่อเมื่อมีเหตุฉุกเฉินหรือความผิดปกติที่เกี่ยวข้องกับการวิจัย

ถ้าท่านมีคำถามเกี่ยวกับการวิจัยครั้งนี้ ท่านสามารถติดต่อผู้วิจัย, สุปรีดา มั่นคง ที่หมายเลขโทรศัพท์ 0-2552-8204 ถ้าท่านมีคำถามเกี่ยวกับสิทธิของท่านในการเข้าร่วมการวิจัย ท่านสามารถติดต่อหน่วยควบคุมจริยธรรมการวิจัยในคน คณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี ที่หมายเลขโทรศัพท์ 0-2201-1544

ผู้สนับสนุนการวิจัย ไม่มี

ความเป็นมาของโครงการ

ในปัจจุบันนี้ผู้สูงอายุเขามารับการรักษาในโรงพยาบาลมากขึ้น แต่จำนวนวันที่อยู่ในโรงพยาบาลของผู้สูงอายุลดลง การให้ญาติเขามามีส่วนร่วมในการดูแลผู้สูงอายุขณะที่ผู้สูงอายुरักษาตัวอยู่ในโรงพยาบาล โดยมีพยาบาลคอยให้ความช่วยเหลือ จึงเป็นการเตรียมพร้อมญาติผู้ดูแล เพื่อที่ญาติผู้ดูแลมีความมั่นใจที่จะให้การดูแลผู้สูงอายุอย่างต่อเนื่องที่บ้าน ได้อย่างเหมาะสม ซึ่งเป็นผลดีทั้งต่อตัวผู้สูงอายุและญาติผู้ดูแล นอกจากนี้ยังมีผลในการลดความเครียดและความวิตกกังวลของญาติผู้ดูแลในการดูแลต่อเนื่องที่บ้าน อย่างไรก็ตามในประเทศไทย ยังไม่มีแบบสอบถามที่ใช้วัดระดับการมีส่วนร่วมของญาติในการดูแลผู้สูงอายุขณะที่ผู้สูงอายुरักษาตัวอยู่ในโรงพยาบาล การวิจัยครั้งนี้จึงเป็นการประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลในกลุ่มคนไทย

วัดอุประสงค์^๔

เพื่อประเมินค่าตามในแบบสอบถาม การดูแลผู้ป่วยของญาติในโรงพยาบาลว่าตรงกับสิ่งที่ญาติของท่าน
ได้ให้การดูแลท่านขณะที่ท่านเข้ารับการรักษาในโรงพยาบาลหรือไม่

รายละเอียดที่จะปฏิบัติต่อผู้เข้าร่วมโครงการ

การเข้าร่วมโครงการทั้งตัวท่านและญาติของท่านเป็นไปด้วยความสมัครใจ หากท่านตกลงที่จะเข้าร่วมโครงการ

- ๑) ท่านอนุญาตให้ผู้วิจัยสัมภาษณ์ญาติผู้ดูแลท่านเกี่ยวกับสิ่งที่ญาติให้การดูแลท่าน ขณะที่ท่านอยู่ในโรงพยาบาล และ ๒ อาทิตย์หลังจากออกจากโรงพยาบาล และ
- ๒) ท่านอนุญาตให้ผู้วิจัยดูแลประวัติการรักษาของท่านในวันที่ท่านกลับบ้าน

ท่านไม่ต้องตอบคำถามใดใดทั้งสิ้น ผู้วิจัยจะสัมภาษณ์ญาติผู้ดูแลท่านตามข้อคำถามใน แบบสอบถาม ที่โรงพยาบาล, ๑ วันหลังจากที่ท่านออกจากโรงพยาบาลไปแล้ว, และ ๒ อาทิตย์ หลังออกจากโรงพยาบาลที่ หน่วยตรวจผู้ป่วยนอก รวมเวลา ที่ใช้ในการสัมภาษณ์ทั้งหมดประมาณ ๒ - ๒.๕ ชั่วโมง

ประโยชน์และผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมโครงการ

ท่านที่เข้าร่วมในการวิจัยครั้งนี้อาจจะไม่ได้ประโยชน์เป็นการส่วนตัว แต่อย่างไรก็ตามข้อมูลที่ได้จากการดูแลผู้สูงอายุของญาติ จะให้ความรู้และความเข้าใจเกี่ยวกับการดูแลผู้สูงอายุ ที่โรงพยาบาล และที่บ้านในช่วง ๒ อาทิตย์หลังออกจากโรงพยาบาล ซึ่งจะเป็นประโยชน์ต่อผู้สูงอายุและผู้ดูแล ผู้สูงอายุในอนาคต

ญาติของท่านจะไม่มีความเสี่ยงใดๆจากการการเข้าร่วมในการศึกษาครั้งนี้ แต่บางข้อคำถามอาจดูเป็นเรื่องส่วนตัว และอาจทำให้ญาติของท่านมีความอึดอัดใจในการตอบ ญาติของท่านจะไม่ตอบหรือถอนตัวจากโครงการนี้เมื่อใดก็ได้ตามต้องการ

การเก็บข้อมูลเป็นความลับ

ข้อมูลที่ท่านให้สัมภาษณ์จะเก็บไว้เป็นความลับ ชื่อ นามสกุล และข้อมูลส่วนตัวจะไม่มีเปิดเผย ไม่ว่าโดยการพิมพ์เผยแพร่หรือเปิดเผยต่อสาธารณชน ข้อมูลที่ได้จากแฟ้มประวัติการรักษาของท่านจะไม่มี การเล่าให้ญาติที่ดูแลท่านทราบ ข้อมูลในการวิจัยจะถูกตรวจสอบ หรือถ่ายทอดสาร โดยสถาบันผู้ควบคุม การวิจัยของมหาวิทยาลัยโอเรกอน และ หน่วยควบคุมจริยธรรมเกี่ยวกับการวิจัยในคน คณะแพทยศาสตร์ โรงพยาบาลรามาริบดี ในกรณีที่ผู้วิจัยพบกรณีผู้สูงอายุถูกทำร้ายหรือถูกละเลยซึ่งอาจเกิดอันตรายกับผู้สูงอายุ ผู้วิจัยจะทำการส่งต่อนักสังคมสงเคราะห์ของโรงพยาบาล รามาริบดี

- ๓) การสัมภาษณ์ครั้งที่สามจะถามในช่วงที่ท่านพาผู้สูงอายุมาตรวจ ตามนัดในช่วง ๒ อาทิตย์ หลังออกจากโรงพยาบาล

การสัมภาษณ์ครั้งที่หนึ่งและครั้งที่สามใช้เวลาประมาณ ๑ ชั่วโมง การสัมภาษณ์ ครั้งที่สองใช้เวลา ๑๐ - ๑๕ นาที รวมเวลาทั้งหมดประมาณ ๒ - ๒.๕ ชั่วโมง

ประโยชน์และผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมโครงการ

ท่านที่เข้าร่วมในการวิจัยครั้งนี้อาจจะไม่ได้ประโยชน์เป็นการส่วนตัว แต่อย่างไรก็ตาม ข้อมูลที่ได้จากการดูแลผู้สูงอายุของญาติ จะให้ความรู้และความเข้าใจเกี่ยวกับการดูแลผู้สูงอายุที่โรงพยาบาล และที่บ้านในช่วง ๒ อาทิตย์หลังออกจากโรงพยาบาล ซึ่งจะเป็นประโยชน์ต่อผู้สูงอายุ และ ผู้ดูแลผู้สูงอายุในอนาคต

ท่านจะไม่มีความเสี่ยงใดๆจากการเข้าร่วมในการศึกษาครั้งนี้ แต่บางข้อคำถามอาจดูเป็นเรื่องส่วนตัว และอาจทำให้ท่านมีความอึดอัดใจในการตอบ ท่านจะไม่ตอบหรือถอนตัวจากโครงการนี้เมื่อใดก็ได้ตามต้องการ

การเก็บข้อมูลเป็นความลับ

ข้อมูลที่ท่านให้สัมภาษณ์จะเก็บไว้เป็นความลับ ชื่อ นามสกุล และ ข้อมูลส่วนตัวจะไม่มีการเปิดเผยไม่ว่าโดยการพิมพ์เผยแพร่หรือเปิดเผยต่อสาธารณชน ข้อมูลที่ท่านให้สัมภาษณ์ จะไม่มีการเล่าให้ผู้สูงอายุที่ท่านดูแล หมอ และพยาบาลทราบ ข้อมูลในการวิจัยจะถูกตรวจสอบหรือถ่ายทอดสารโดยสถาบันผู้ควบคุมการวิจัยของมหาวิทยาลัยไอเรกอน และหน่วยควบคุมจริยธรรมเกี่ยวกับการวิจัยในคน คณะแพทยศาสตร์ โรงพยาบาลรามาริบัติ ในกรณีที่ผู้วิจัยพบกรณีผู้สูงอายุถูกทำร้าย หรือถูกละเลยซึ่งอาจเกิดอันตรายกับผู้สูงอายุ ผู้วิจัยจะทำการส่ง คือนักสังคมสงเคราะห์ของโรงพยาบาลรามาริบัติ

เอกสารชี้แจงข้อมูลคำแนะนำแก่ผู้เข้าร่วมโครงการ
(Caregiver of Cognitive Impaired Older Person Information Sheet)

ชื่อโครงการ การประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลในกลุ่มคนไทย
ชื่อหัวหน้าโครงการ นางสาว สุปรีดา มั่นคง, RN, MSN
ชื่อผู้ร่วมวิจัย ดร. เด็บบอล่า เมัสติกา, RN, PhD
 ดร. เด็บบอล่า เอ็ลเด็ค, RN, PhD
 ดร. แนนซี เพอร์ริน, PhD
สถานที่วิจัย โรงพยาบาลรามาริบัติ

บุคคลและวิธีการติดต่อเมื่อมีเหตุฉุกเฉินหรือความผิดปกติที่เกี่ยวข้องกับการวิจัย

ถ้าท่านมีคำถามเกี่ยวกับการวิจัยครั้งนี้ ท่านสามารถติดต่อผู้วิจัย, สุปรีดา มั่นคง ที่หมายเลขโทรศัพท์ 0-2552-8204 ถ้าท่านมีคำถามเกี่ยวกับสิทธิของท่านในการเข้าร่วมการวิจัย ท่านสามารถติดต่อหน่วยควบคุมจริยธรรมการวิจัยในคน คณะแพทยศาสตร์ โรงพยาบาลรามาริบัติ ที่หมายเลขโทรศัพท์ 0-2201-1544

ผู้สนับสนุนการวิจัย ไม่มี

ความเป็นมาของโครงการ

ในปัจจุบันนี้ผู้สูงอายุเข้ามารับการรักษาในโรงพยาบาลมากขึ้น แต่จำนวนวันที่อยู่ในโรงพยาบาลของผู้สูงอายุมีน้อยลง การให้ญาติเข้ามามีส่วนร่วมในการดูแลผู้สูงอายุขณะที่ผู้สูงอายุรักษาตัวอยู่ในโรงพยาบาลโดยมีพยาบาลคอยให้ความช่วยเหลือ จึงเป็นการเตรียมพร้อมญาติผู้ดูแล เพื่อให้ญาติผู้ดูแลมีความมั่นใจที่จะให้การดูแลผู้สูงอายุอย่างต่อเนื่องที่บ้านได้อย่างเหมาะสม ซึ่งเป็นผลดีทั้งต่อตัวผู้สูงอายุและญาติผู้ดูแล นอกจากนี้ยังส่งผลในการลดความเครียดและความวิตกกังวลของญาติผู้ดูแลในการดูแลต่อเนื่องที่บ้าน อย่างไรก็ตามในประเทศไทย ยังไม่มีแบบสอบถามที่ใช้วัดระดับการมีส่วนร่วมของญาติในการดูแลผู้สูงอายุขณะที่ผู้สูงอายุรักษาตัวอยู่ในโรงพยาบาล การวิจัยครั้งนี้จึงเป็นการประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลในกลุ่มคนไทย

วัตถุประสงค์

เพื่อประเมินคำถามในแบบสอบถาม การดูแลผู้ป่วยของญาติในโรงพยาบาลว่าตรงกับสิ่งที่ญาติของท่านได้ให้การดูแลท่านขณะที่ท่านเข้ารับการรักษารักษาในโรงพยาบาลหรือไม่

รายละเอียดที่จะปฏิบัติต่อผู้เข้าร่วมโครงการ

การเข้าร่วมโครงการเป็นไปด้วยความสมัครใจ หากท่านตกลงที่จะเข้าร่วมโครงการ

- ๑) ท่านอนุญาตให้ผู้วิจัยดูข้อมูลในแฟ้มประวัติการรักษาของผู้สูงอายุ ในวันที่ผู้สูงอายุ กลับบ้าน
- ๒) ผู้วิจัยจะสัมภาษณ์ท่านตามข้อคำถาม ในแบบสอบถามเกี่ยวกับการที่ท่านเป็นผู้ดูแลผู้สูงอายุที่รับการรักษาในโรงพยาบาล และ ๒ อาทิตย์หลังจากออกจากโรงพยาบาล

๒.๑ การสัมภาษณ์ครั้งที่หนึ่งจะถามในช่วงที่ท่านให้การดูแล ผู้สูงอายุในโรงพยาบาล

๒.๒ ครั้งที่สองผู้วิจัยจะโทรศัพท์ไปสัมภาษณ์ที่บ้านหลังจากออกจาก โรงพยาบาล
ไปแล้ว ๑ วัน

๒.๓ การสัมภาษณ์ครั้งที่สามจะถามในช่วงที่ท่านพาผู้สูงอายุมาตรวจ ตามนัดในช่วง

๒ อาทิตย์หลังจากออกจากโรงพยาบาล

การสัมภาษณ์ครั้งที่หนึ่งและครั้งที่สามใช้เวลาประมาณ ๑ ชั่วโมง การสัมภาษณ์ ครั้งที่สอง
ใช้เวลา ๑๐-๑๕ นาที รวมเวลาทั้งหมดประมาณ ๒-๒.๕ ชั่วโมง

ประโยชน์และผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมโครงการ

ท่านที่เข้าร่วมในการวิจัยครั้งนี้อาจจะไม่ได้ประโยชน์เป็นการส่วนตัว แต่อย่างไรก็ตามข้อมูลที่ได้อาจการดูแลผู้สูงอายุของญาติ จะให้ความรู้และความเข้าใจเกี่ยวกับการดูแลผู้สูงอายุที่โรงพยาบาลและที่บ้าน ในช่วง ๒ อาทิตย์หลังจากออกจากโรงพยาบาล ซึ่งจะเป็นประโยชน์ต่อผู้สูงอายุ และผู้ดูแลผู้สูงอายุในอนาคต

ท่านจะไม่มีความเสี่ยงใดๆจากการเข้าร่วมในการศึกษาครั้งนี้ แต่บางข้อคำถามอาจดูเป็นเรื่องส่วนตัว และอาจทำให้ท่านมีความอึดอัดใจในการตอบ ท่านจะไม่ตอบหรือถอนตัวจากโครงการนี้เมื่อใดก็ได้ตามต้องการ

การเก็บข้อมูลเป็นความลับ

ข้อมูลที่ท่านให้สัมภาษณ์จะเก็บไว้เป็นความลับ ชื่อ นามสกุล และข้อมูลส่วนตัว จะไม่มีการเปิดเผยไม่ว่าโดยการพิมพ์ เผยแพร่หรือเปิดเผยต่อสาธารณชนข้อมูลที่ท่านให้สัมภาษณ์ จะไม่มีการเล่าให้ หมอ และพยาบาลทราบ ข้อมูลในการวิจัยอาจจะถูกตรวจสอบ หรือถ่ายเอกสาร โดยสถาบันผู้ควบคุมการวิจัยของมหาวิทยาลัยโอเรกอน และหน่วยควบคุมจริยธรรมเกี่ยวกับการวิจัยในคน คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี ในกรณีที่ผู้วิจัยพบกรณีผู้สูงอายุถูกทำร้าย หรือถูกละเลยซึ่งอาจเกิดอันตรายกับผู้สูงอายุ ผู้วิจัยจะทำการส่งต่อนักสังคมสงเคราะห์ของโรงพยาบาลรามาธิบดี

Appendix E

A Charge Nurse Information Sheet

Research participant needed for
Oregon Health & Science University
Research Study IRB # 7222

Psychometric Analysis of Family Care Actions Index
(FCAI) in the Thai Population

The purpose of this research is to find out whether a questionnaire, the Family Care Actions Index (FCAI), really captures what kind of things family caregivers have done to help their older family member while he/she has been in the hospital.

Both an older family member and caregiver must consent to participate. Caregiver who participates will complete 3 questionnaires. These questionnaires are about what is it like for being a caregiver of an older patient in the hospital and 2 weeks after an older patient is discharged home.

If you are interested in participating, the investigator will contact you in person.

ต้องการผู้สนใจเข้าร่วมการวิจัยของมหาวิทยาลัยโอเรกอน
การวิจัยเลขที่ 7222

ชื่อโครงการวิจัย:

การประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาล ในกลุ่มคนไทย

การวิจัยครั้งนี้มีวัตถุประสงค์

เพื่อประเมินคำถามในแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลว่า
ตรงกับสิ่งที่ญาติผู้ดูแลให้การดูแลแก่ผู้ป่วยสูงอายุที่เข้ารับการรักษาใน
โรงพยาบาลหรือไม่

การเข้าร่วมโครงการทั้งผู้สูงอายุและญาติเป็นไปด้วยความสมัครใจ
หากท่านตกลง ที่จะเข้าร่วมโครงการ ผู้วิจัยจะสัมภาษณ์ ญาติผู้ดูแล ตาม
ข้อคำถามในแบบสอบถาม 3 ครั้ง แบบสอบถามจะถามเกี่ยวกับสิ่งที่ญาติ
ให้การดูแลแก่ผู้สูงอายุที่เข้ารับการรักษาในโรงพยาบาล และ ในช่วง 2 อาทิตย์
หลังจากออกจาก โรงพยาบาล

หากท่านสนใจที่จะเข้าร่วมโครงการ ผู้วิจัยจะมาพบท่าน

Appendix F

A Letter of Thanks to Participants

Dear (Names):

Thank you for your participation in the study. I appreciated your efforts and the time that you answer the questions. The information you provide will assist nurses and doctors to better understand your role as a family member who provides care to an older person who is hospitalized.

By participating in this study, you may have contributed information that will benefit other older person who is hospitalized and their caregivers in the future.

Sincerely,

Supreeda Monkong
Doctoral Nursing Student, School of Nursing
Oregon Health Science University, Portland, OR

วันที่ _____

เรียน คุณ

ดิฉัน สุปรีดา มั่นคง นักศึกษาปริญญาเอก สาขาการพยาบาลผู้สูงอายุ มหาวิทยาลัยโอเรกอน ประเทศสหรัฐอเมริกา ได้ทำการวิจัยในโครงการที่มีชื่อ “การประเมินแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาลในกลุ่มคนไทย”

ดิฉันขอขอบคุณท่านที่เข้าร่วมในการวิจัยครั้งนี้ และสละเวลาตอบคำถามในแบบสอบถามทั้งสองชุด ทั้งการดูแลผู้สูงอายุขณะเข้ารับการรักษาในโรงพยาบาลและการดูแลผู้สูงอายุที่บ้าน คำตอบของท่านมีส่วนช่วยพัฒนาแบบสอบถามการดูแลผู้ป่วยของญาติในโรงพยาบาล

ท่านที่เข้าร่วมในการวิจัยครั้งนี้อาจจะไม่ได้ประโยชน์เป็นการส่วนตัว แต่อย่างไรก็ตาม ข้อมูลที่ได้จากการดูแลผู้สูงอายุของญาตินี้ จะให้ความรู้และความเข้าใจ เกี่ยวกับการดูแลผู้สูงอายุที่โรงพยาบาล และที่บ้านในช่วง ๒ อาทิตย์หลังจากออกจากโรงพยาบาล ซึ่งจะเป็นประโยชน์ต่อผู้สูงอายุและผู้ดูแลผู้สูงอายุในอนาคต

ขอบคุณค่ะ

(นางสาว สุปรีดา มั่นคง)

หัวหน้าโครงการวิจัย

พยาบาลประจำการระดับ 5

ภาควิชาพยาบาลศาสตร์

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี

Appendix G

The English and Thai Questionnaires

First Interview
(In Hospital)
New Version

Demographic Instrument for Family Caregivers

1. How old are you?
Age:.....years
2. Sex
☐ Female
☐ Male
3. What is your current marital status?
☐ Married
☐ Widowed
☐ Divorced
☐ Separated
☐ Never married
4. What is the highest grade in school that you completed?
☐ No education
☐ Elementary School
☐ High School
☐ College
☐ University
5. Employment Status
☐ Employed
☐ Unemployed
6. How are you related to the family member you are helping? Are you his or her _____?
☐ Wife
☐ Husband
☐ Daughter
☐ Son
☐ Daughter-in-law
☐ Son-in-law
☐ Other relative
☐ Neighbor or friends
☐ Other:_____
7. Family Income
☐ Less than 1,000
☐ 1,001-5,000
☐ 5,001-10,000
☐ 10,001-15,000
☐ 15,001-20,000
☐ More than 20,001
8. About how many years have you and your family member known each other?
 _____ years _____ months
9. At this time, do you and your family member live in the same household?
☐ Yes
☐ No
- 9a. If No, how far away do you live from your family member?
Kilometers

Family Help in Hospital Care

Family members report doing various things for their relatives in the hospital. Please read each statement and **Check** those things you did during current hospital stay. It is not expected that you would have done all of the activities listed. For each question, circle **NO** if you do NOT do that type of help, circle **YES** if you do that type of help.

Did you do this type of help for your

relatives?

NO

YES

- | | | |
|---|----|-----|
| 1. I stayed with my relative..... | NO | YES |
| 2. I arranged for visitors to see my relatives.... | NO | YES |
| 3. I talked with my relative | NO | YES |
| 4. I kept relatives informed about my relative | NO | YES |
| 5. I did things together with my relative that
he or she like to do | NO | YES |
| 6. I brought my relative's favorite food | NO | YES |
| 7. I gave emotional support to him or her..... | NO | YES |
| 8. I held my relative's hand | NO | YES |
| 9. I prayed or did other activities that met
spiritual needs (e.g., arrange flower for the
holy things) with my relative | NO | YES |

CAREGIVING ACTIVITIES (cont.)

**Do you do this type of help
for your relatives?**

NO**YES**

- | | | |
|--|----|-----|
| 10. I read religious materials to him or her | NO | YES |
| 11. I brought things from home for
him or her | NO | YES |
| 12. I did things for my relative that he or
she could not do for him or herself | NO | YES |
| 13. I helped my relative with toileting,
or using the bedpan or commode | NO | YES |
| 14. I helped my relative with eating | NO | YES |
| 15. I helped my relative with dressing
or undressing | NO | YES |
| 16. I did things to help my relative get
comfortable | NO | YES |
| 17. I helped my relative with taking fluids | NO | YES |
| 18. I helped my relatives with bathing or
showering | NO | YES |
| 19. I helped my relative to turn in bed | NO | YES |
| 20. I helped my relative with hygiene care
(care of teeth, hair, feet, and nails) | NO | YES |
| 21. I tried to do things to make it easier for
nurses to take care of my relative | NO | YES |

CAREGIVING ACTIVITIES (cont.)

Do you do this type of help for your relatives?	NO	YES
22. I helped my relative to stand up or get into bed	NO	YES
23. I helped my relative with walking	NO	YES
24. I encouraged my relative to do things (e.g., eating)	NO	YES
25. I helped my relative to get something he or she needed or wanted	NO	YES
26. I helped my relative by running errands for him or her	NO	YES
27. I provided information about my relative to hospital staff	NO	YES
28. I learned new care skills from the health care team members	NO	YES
29. I learned things about my relative's treatment	NO	YES
30. I helped my relative take pills	NO	YES
31. I asked questions about my relative's treatment	NO	YES
32. I helped my relative during his or her recovery in the hospital by following directions from staff	NO	YES
33. I watched what staff were doing for my relative so I would know what to do when he or she was discharged home	NO	YES

CAREGIVING ACTIVITIES (cont.)		
Do you do this type of help for your relatives?	NO	YES
34. I helped my relative with his or her breathing exercises	NO	YES
35. I left the hospital early enough, so I could get home and relax	NO	YES
36. I participated in decision making about my relative's care	NO	YES
37. I arranged things on my relative's bedside table (e.g., flower, cards, goody, or wholesome food)	NO	YES
38. I brought in books or magazines for my relative	NO	YES
39. I warned hospital staff about medications that might cause problems for my relative	NO	YES
40. I told the nurses about my relative's habits and the way he or she like things	NO	YES
41. I told the nurses about what I usually do at home for my relative's personal care.....	NO	YES
42. I told the nurses about what I usually do at home caring for my relative's mental condition (e.g., dementia, confusion).....	NO	YES
43. I made sure to eat well so I was in good shape to help my relative	NO	YES

CAREGIVING ACTIVITIES (cont.)

**Do you do this type of help
for your relatives?**

	NO	YES
44. I asked a close friend or relative to come to the hospital to give me support.....	NO	YES
45. I told the nurses about what parts of personal care my relative could or could not do before his or her hospital stay	NO	YES
46. I told the nurses how to meet the special needs of my relative	NO	YES
47. I kept track of my relative's medication changes while in the hospital	NO	YES
48. I kept track of my relative's intake (how much he or she ate or output (amount of urine) and reported to nurse	NO	YES
49. I made sure my relative had fresh cold water to drink	NO	YES
50. I made sure that nurses were caring for my relative appropriately	NO	YES
51. I took a break for myself during the day when I was at the hospital	NO	YES
52. I arranged for other relatives to do things for me so I could stay with him or her in the hospital	NO	YES
53. I took my relative to the hospital	NO	YES
54. Other things you have done for your relatives (be specific).....	NO	YES

Family Strain in Hospital Care

We would like to know how hard is it for you to do this type or help for your relatives. Please circle **Very Hard** 4, **Pretty Hard** 3, **Somewhat Hard** 2, **Not Too Hard** 1, or **Easy** 0

How hard is it for you to do this	Very Hard	Some- Pretty Hard	Not what Hard	Too Hard	Easy
1. Be there with your relative? 4	4	3	2	1	0
2. Perform typical family functions in the hospital (e.g., bring relative's favorite food, give emotional support)? 4	4	3	2	1	0
3. Provide passage between home and hospital (e.g., bring things from home for him or her)? 4	4	3	2	1	0
4. Attend to your relative's personal care (e.g., help your relative with eating)? 4	4	3	2	1	0
5. Exchange information between family and health care team (e.g., provide information about your relative to hospital staff)? 4	4	3	2	1	0
6. Collaborate with health care team to provide personal care (e.g., try to do things to make it easier for nurses to take care of your relative)? 4	4	3	2	1	0
7. Participate in therapeutic health care regimens (e.g., help your relative take pills, ask questions about your relative's treatment)? 4	4	3	2	1	0
8. Make sure the health care team takes care of patient's needs? 4	4	3	2	1	0
9. Take care of yourself (e.g., did you take a break for yourself during the day when you were at the hospital)? 4	4	3	2	1	0

YOUR PREPARATION FOR CAREGIVING

We know that people may feel well prepared for some aspects of giving care to another person, and not as well prepared for other aspects.

	Not at well prepared	Not too well prepared	Somewhat well prepared	Pretty well prepared	Very well prepared
1. How well prepared do you think you are to take care of the elder's physical needs?	0	1	2	3	4
2. How well prepared do you think you are to take care of the elder's emotional needs?	0	1	2	3	4
3. How well prepared do you think you are to find out about and set up services for the elder?	0	1	2	3	4
4. How well prepared do you think you are for the stress of the caregiving?	0	1	2	3	4
5. How well prepared do you think you are to make caregiving activities pleasant for both you and the elder?	0	1	2	3	4
6. How well prepared do you think you are to respond to and handle emergencies that involve the elder?	0	1	2	3	4
7. How well prepared do you think you are to get the help and information you need from the health care center?	0	1	2	3	4
8. Overall, how well prepared do you think you are to care for the elder?	0	1	2	3	4

YOU AND YOUR FAMILY MEMBER

Now we would like you to let us know how you and your family member feel about each other at the current time.

	Not at all	A little	Some	Quite a bit	A great deal
1. How much do the two of you agree on things?	0	1	2	3	4
2. How close do you feel to the elder?	0	1	2	3	4
3. How much do you enjoy sharing past experiences with the elder?	0	1	2	3	4
4. How much does the elder show his or her appreciation for you taking care of him or her?	0	1	2	3	4
5. How attached are you to the elder?	0	1	2	3	4
6. How much does the elder help you?	0	1	2	3	4
7. How much do you like to sit and talk with the elder?	0	1	2	3	4
8. How much love do you feel for the elder?	0	1	2	3	4
9. How much do you and the elder think the same things are important in life?	0	1	2	3	4
10. When you are suffering, how much does the elder comfort you?	0	1	2	3	4
11. How much do you and the elder spend time talking and laughing together?	0	1	2	3	4
12. How much do you confide in the elder?	0	1	2	3	4
13. How much does the elder encourage you and being sympathetic?	0	1	2	3	4
14. How happy are you when you spend time with the elder?	0	1	2	3	4
15. How often does he or she express feelings of "auarthon" toward you?	0	1	2	3	4

Second Interview
(Follow-up phone call the day after discharge)

Family Help in Hospital Care

Family members report doing various things for their relatives in the hospital. Please read each statement and check those things you did during the last hospital stay. It is not expected that you would have done all of the activities listed. For each question, circle **NO** if you do NOT do that type of help circle **YES** if you do that type of help.

Did you do this type of help for your relatives?	NO	YES
1. I helped my relative to get ready to go home.....	NO	YES
2. I took things home for my relative	NO	YES
3. I asked hospital staff to clarify the discharge instructions	NO	YES
4. I participated in discharge instructions with my relative	NO	YES
5. I learned new information from the discharge instructions given by the nurse	NO	YES
6. I learned things about my relative's follow up care	NO	YES
7. I learned about equipment for my relative which could make his or her care easier at home	NO	YES
8. I joined planning process for my relative's discharge from the hospital.....	NO	YES
9. I picked up his or her medicine from nurse	NO	YES
10. I took my relative home	NO	YES

Third Interview
(At Outpatient Clinics)

CAREGIVING ACTIVITIES

This set of questions is very long. However, your answers are very important to us because we want to have a really good idea about what you are now doing to take care of your family member. Sometimes helping someone is no problem, but for a number of people, giving this help is very difficult to do, both physically and emotionally.

Below is a list of types of help that may be given to a person who has health or memory problems. We would like for you to tell us whether you do each type of help and, if so, how it goes for you.

For each question, Circle **NO** if you do NOT do that type of help or if your family member doesn't have that problem. Circle **YES** if you do that type of help.

If you circled **YES**, indicate how hard it is for **you** to do that type of help.

Please circle **Very Hard** (4) **Pretty Hard** (3) **Somewhat Hard** (2) **Not Too Hard** (1) or **Easy** (0).


Do you do this type of help for your family member?		If YES, how hard is it for you to do this.					Easy	
		NO	YES	Very Hard	Pretty Hard	Some- what Hard	Not Too Hard	
1. Do you have to assist the elder with walking around the house? For example, do you have to give the elder your arm or get your older a walker?	NO YES			4	3	2	1	0
2. Do you have to assist the elder with getting around outside the house?	NO YES			4	3	2	1	0
3. Do you have to keep one eye on the elder to make sure he or she is safe?	NO YES			4	3	2	1	0
4. Do you assist the elder with his or her medications or shots?	NO YES			4	3	2	1	0
5. Do you have to help the elder with eating?	NO YES			4	3	2	1	0
6. Do you protect the elder from falls?	NO YES			4	3	2	1	0
7. Do you help make major decisions about the elder's health care -- such as surgery or a change in treatment?	NO YES			4	3	2	1	0

CAREGIVING ACTIVITIES (cont.)		If YES, how hard is it for you to do this.						
Do you do this type of help for your family member?		NO	YES	Very Hard	Pretty Hard	Some-what Hard	Not Too Hard	Easy
8.	Do you try to keep the elder active and involved in activities that he or she enjoys?	NO	YES	4	3	2	1	0
9.	Do you keep the doctor informed about changes in the elder's health?	NO	YES	4	3	2	1	0
10.	Do you keep nurses and other health care workers informed about changes in the elder's health?	NO	YES	4	3	2	1	0
11.	Do you lift or transfer the elder from one place to another? For example, do you lift the elder out of a chair, or transfer him or her from a bed to a chair?	NO	YES	4	3	2	1	0
12.	Do you have to make sure the elder gets the right amount of liquids? (Circle NO if the elder can do that on his or her own.)	NO	YES	4	3	2	1	0
13.	Do you assist the elder with bathing, washing, or taking a shower?	NO	YES	4	3	2	1	0
14.	Do you have to handle the elder's paranoia or suspiciousness? (Circle NO if the elder does not have that problem.)	NO	YES	4	3	2	1	0
15.	Do you take part in leisure activities with the elder, such as watching TV, playing games, or listening to music?	NO	YES	4	3	2	1	0
16.	Do you have to handle the elder crying spells? (Circle NO if the elder does not have that problem.)	NO	YES	4	3	2	1	0
17.	Do you have to make sure the elder eats the right amount or types of food? (Circle NO if the elder can do that on his or her own.)	NO	YES	4	3	2	1	0
18.	Do you have to clean up if the elder has a bladder accident?	NO	YES	4	3	2	1	0

CAREGIVING ACTIVITIES (cont.)		If YES, how hard is it for you to do this.					
Do you do this type of help for your family member?	NO	YES	Very Hard	Pretty Hard	Some-what Hard	Not Too Hard	Easy
19. Do you do writing for the elder? (Circle NO if your elder can do that on his or her own.)	NO	YES	4	3	2	1	0
20. Do you have to handle the elder's yelling? (Circle NO if the elder does not have this problem.)	NO	YES	4	3	2	1	0
21. Do you have discussions with the elder about the future, the meaning and purpose of life, or how the elder has lived his or her life?	NO	YES	4	3	2	1	0
22. Do you apply lotions to the elder's skin?	NO	YES	4	3	2	1	0
23. Do you have to listen to, and answer, questions that the elder asks over and over again?	NO	YES	4	3	2	1	0
24. Do you have to help the elder on stairs?	NO	YES	4	3	2	1	0
25. Do you take care of the elder's dentures or brush his or her teeth?	NO	YES	4	3	2	1	0
26. Do you handle or manage medical equipment or machines, such as oxygen, a feeding tube, IV equipment, or catheters?	NO	YES	4	3	2	1	0
27. Do you have to deal with the elder's problems with fatigue?	NO	YES	4	3	2	1	0
28. Do you have to watch the elder in case he or she wanders off?	NO	YES	4	3	2	1	0
29. Do you assist the elder with dressing or undressing?	NO	YES	4	3	2	1	0
30. Do you keep other family members informed about the elder's health?	NO	YES	4	3	2	1	0
31. Do you sit and spend time with the elder? ...	NO	YES	4	3	2	1	0
32. Do you have to get up at night to help the elder?	NO	YES	4	3	2	1	0

CAREGIVING ACTIVITIES (cont.)		If YES, how hard is it for you to do this.					
Do you do this type of help for your family member?	NO	YES	Very Hard	Pretty Hard	Some-what Hard	Not Too Hard	Easy
33. Do you have to help the elder with emotional ups and downs?	NO	YES	4	3	2	1	0
34. Do you have to deal with the elder unsafe driving? (Circle NO if he or she does not have that problem.)	NO	YES	4	3	2	1	0
35. Do you have to handle situations when the elder doesn't remember who or where he or she is?	NO	YES	4	3	2	1	0
36. Do you have to check on or treat skin problems that the elder has?	NO	YES	4	3	2	1	0
37. Do you check in on the elder to make sure he or she is OK?	NO	YES	4	3	2	1	0
38. Do you have to handle the elder's hallucinations? (Circle NO if the elder does not have this problem.)	NO	YES	4	3	2	1	0
39. Do you have to protect the elder from poisoning him or herself (e.g., taking too much medication, household poisons)?	NO	YES	4	3	2	1	0
40. Do you have to clean up when the elder has a bowel accident?	NO	YES	4	3	2	1	0
41. Do you have to help the elder with bowel problems like constipation or diarrhea?	NO	YES	4	3	2	1	0
42. Do you have to manage the elder's nausea?	NO	YES	4	3	2	1	0
43. Do you have to help the elder in getting to the bathroom?	NO	YES	4	3	2	1	0
44. Do you have to watch out for and treat the elder's infections?	NO	YES	4	3	2	1	0

CAREGIVING ACTIVITIES (cont.)		If YES, how hard is it for you to do this.					
Do you do this type of help for your family member?	NO	YES	Very Hard	Pretty Hard	Some-what Hard	Not Too Hard	Easy
45. Do you help the elder use the toilet or bedpan?	NO	YES	4	3	2	1	0
46. Do you have to deal with the elder because of problems related to keys and locks for doors?	NO	YES	4	3	2	1	0
47. Do you have to make sure the elder gets enough rest?	NO	YES	4	3	2	1	0
48. Do you do things for the elder like hold hands or rub his or her back?	NO	YES	4	3	2	1	0
49. Do you have to help the elder with breathing problems?	NO	YES	4	3	2	1	0
50. Do you have to handle the elder's physical pain?	NO	YES	4	3	2	1	0
51. Do you have to handle the elder's hitting or pushing people? (Circle NO if the elder does not have that problem.)	NO	YES	4	3	2	1	0
52. Do you have to watch out for problems that the elder has with swelling?	NO	YES	4	3	2	1	0
53. Do you assist the elder with hair care or shampooing?	NO	YES	4	3	2	1	0
54. Do you help the elder to get going in an activity?	NO	YES	4	3	2	1	0
55. Do you help the elder use the phone?	NO	YES	4	3	2	1	0
56. Do you have to handle the elder's hiding things and forgetting where he or she put them?	NO	YES	4	3	2	1	0

CAREGIVING ACTIVITIES (cont.)		 If YES, how hard is it for you to do this.					
Do you do this type of help for your family member?	NO	YES	Very Hard	Pretty Hard	Some-what Hard	Not Too Hard	Easy
57. Do you have to deal with the elder's agitation or restlessness? (Circle NO if the elder does not have that problem.)	NO	YES	4	3	2	1	0
58. Do you have to deal with the elder's showing sexual behavior or interests at the wrong time or place?	NO	YES	4	3	2	1	0
59. Do you read to the elder?	NO	YES	4	3	2	1	0
60. Do you have to monitor the number of people who come to see the elder?	NO	YES	4	3	2	1	0
61. Do you have to handle emergencies related to the elder's illness?	NO	YES	4	3	2	1	0
62. Do you help trim and take care of the elder's fingernails or toenails?	NO	YES	4	3	2	1	0
63. Do you set up place for praying, or watch religious programs on TV, or radio, or read religious books to the elder?	NO	YES	4	3	2	1	0
64. Do you have to handle the elder's swearing or foul language? (Circle NO if he or she does not have that problem.)	NO	YES	4	3	2	1	0
65. Do you have to help the elder because of problems with his or her eyesight?	NO	YES	4	3	2	1	0
66. Do you have to help your family member because of his or her slowness in moving?	NO	YES	4	3	2	1	0
67. Do you Thum-Boon for the elder? (for example, prepare food or a gift for the elder gives to monk, arrange for monks/a priest/mullah to visit?	NO	YES	4	3	2	1	0

CAREGIVING ACTIVITIES (cont.)		If YES, how hard is it for you to do that.					
Do you do this type of help for your family member?	NO	YES	Very Hard	Pretty Hard	Some-what Hard	Not Too Hard	Easy
Sometimes people who take care of a family member get extra help from a health or social service agency.							
68. Have you had to help the elder by getting information from a doctor or other professional?	NO	YES	4	3	2	1	0
69. Have you contacted a health or social service agency to find out if they had a service that might assist in caring for the elder?	NO	YES	4	3	2	1	0
70. Have you ever arranged for someone from a health or social service agency to take care of the elder?	NO	YES	4	3	2	1	0
71. Have you had to make sure that people from a health or social service agency continued to take care of the elder?	NO	YES	4	3	2	1	0
72. Have you had to check and make sure people from those agencies take care of the elder with skill?	NO	YES	4	3	2	1	0
73. Have you tried to get help for the elder but were not able to find anybody?	NO	YES	4	3	2	1	0
74. Have you ever sought an alternative methods of treatment, such as using Chinese medicine, herb, massage, or holy water in order to alleviate the elder's health problems?	NO	YES	4	3	2	1	0
75. Do you help the elder in other ways? Please explain							
a)	NO	YES	4	3	2	1	0
b)	NO	YES	4	3	2	1	0
c)	NO	YES	4	3	2	1	0

AREA OF CONCERN

We would like to know how much you worry about each of the items listed below.

How much do you worry about...	Not at all	A little	Some	Quite a bit	A great deal
1. the elder's health condition?	0	1	2	3	4
2. obtaining enough help for the things you can't do for the elder?	0	1	2	3	4
3. the elder's mood or state of mind?	0	1	2	3	4
4. financial problems related to the elder's care?	0	1	2	3	4
5. your ability to continue taking care of the elder because of your own health?	0	1	2	3	4
6. safety when the elder uses the stove?	0	1	2	3	4
7. how you can go on if the older gets worse?	0	1	2	3	4
8. having to leave the elder alone when you go out? (If you never leave the elder alone, if you had to go out and leave the elder alone, how much would you worry?)	0	1	2	3	4
9. the elder's vulnerability to cars, motorcycles, tuk tuks, tricycles, or bicycles when he or she goes outside?	0	1	2	3	4
10. your own future?	0	1	2	3	4
11. who will take care of the elder if something happens to you?	0	1	2	3	4
12. safety because guns or other weapons are present in the home?	0	1	2	3	4
13. whether the care and advice you receive from doctors and nurses are adequate?	0	1	2	3	4
14. safety when the elder uses sharp tools such as knife or use electrical equipment?	0	1	2	3	4
15. the negative effects of taking care of the elder on the rest of your family?	0	1	2	3	4
16. the progression of his or her disease?	0	1	2	3	4
17. Are there any other things you worry about?	0	1	2	3	4

YOUR OVERALL EXPERIENCE

1. From talking with many caregivers, we know some of them feel that caring for the elder is like being restricted, while some of them do not feel that way. For you, how much do you feel that caring for your family member is like being restricted?

Not at all restricted 0
 A little restricted 1
 Somewhat restricted 2
 Pretty much restricted 3
 Extremely restricted 4

2. How often do you feel caring for the elder is very difficult?

Never 0
 Rarely 1
 Sometimes 2
 Much of the time 3
 Always 4

3. How much stress do you feel because of all your obligations, including taking care of your family member?

No stress 0
 Very little stress 1
 Some stress 2
 A lot of stress 3
 Overwhelming stress 4

4. Do you feel that caring for the elder beneficial to you or detrimental to you?

Definitely more beneficial than
 detrimental 4
 Somewhat more beneficial than
 detrimental 3
 As beneficial as detrimental 2
 Somewhat more detrimental than
 beneficial 1
 Definitely more detrimental than
 beneficial 0

Thai Version of First Interview
(In Hospital)
New Version

กรุณาให้รายละเอียดเกี่ยวกับข้อมูลส่วนตัวของท่าน

1. ท่านอายุเท่าไร

อายุ.....ปี

2. เพศ

.....ผู้หญิง

.....ผู้ชาย

3. สถานภาพสมรส

.....คู่

.....หม้าย

.....หย่า

.....แยกกันอยู่

.....ไม่เคยแต่งงาน

4. ท่านจบการศึกษาชั้นสูงสุดชั้นอะไร

.....ไม่ได้เรียนหนังสือ

.....ประถมศึกษา

.....มัธยมศึกษา

.....ปริญญา

5. สถานภาพการทำงาน

.....ทำงาน

.....ไม่ได้ทำงาน

6. ท่านมีความสัมพันธ์กับผู้สูงอายุอย่างไร ท่านเป็น

..... ภรรยา

.....สามี

.....ลูกสาว

.....ลูกชาย

.....ลูกสะใภ้

.....ลูกเขย

.....ญาติ

.....เพื่อนบ้านหรือเพื่อน

.....อื่นๆ

7. รายได้ของครอบครัวต่อเดือน

.....ต่ำกว่า 1,000

..... 1,001-5,000

..... 5,001-10,000

..... 10,001-15,000

..... 15,001-20,000

..... 20,000 ขึ้นไป

8. ท่านกับผู้สูงอายุรู้จักกันมานานเท่าไร

.....ปีเดือน

9. ขณะนี้ ท่านพักอาศัยอยู่บ้านเดียวกันกับผู้สูงอายุ

.....ใช่

.....ไม่ใช่

9a. ท่านพักอยู่ไกลจากผู้สูงอายุ

เป็นระยะทาง.....กิโลเมตร

การดูแลผู้ป่วยของญาติในโรงพยาบาล

สมาชิกในครอบครัวได้มีส่วนร่วมในการดูแลผู้ป่วยในขณะที่เข้ารับการรักษาในโรงพยาบาลในหลายรูปแบบ กรุณาอ่านข้อความที่ปรากฏอยู่ด้านล่าง ผู้วิจัยต้องการทราบว่าท่านได้ปฏิบัติสิ่งต่างๆ เหล่านี้ ในขณะที่ญาติของท่าน อยู่ในโรงพยาบาลครั้งนี้หรือไม่ กิจกรรมต่างๆ เหล่านี้มีได้ถูกคาดหวังว่าท่านจะต้องปฏิบัติทุกกิจกรรมในนี้

ญาติของท่าน ในที่นี้หมายถึง "ผู้สูงอายุที่ท่านให้การดูแล"

ขอให้อตอบ **ไม่** ถ้าท่านมิได้ปฏิบัติสิ่งต่างๆ เหล่านี้ในขณะที่ญาติของท่านอยู่ในโรงพยาบาลครั้งนี้ หรือญาติของท่าน ไม่มีปัญหาเหล่านั้นเลย

ขอให้อตอบ **ใช่** ถ้าท่านปฏิบัติสิ่งต่างๆ เหล่านี้

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่?	ไม่	ใช่
1. ท่านมาเฝ้าญาติของท่าน	ไม่	ใช่
2. ท่านคอยดูแลให้คนมาเยี่ยมได้พบญาติของท่าน	ไม่	ใช่
3. ท่านพูดคุยกับญาติของท่าน	ไม่	ใช่
4. ท่านเล่าอาการของญาติของท่านให้ญาติพี่น้องรู้	ไม่	ใช่
5. ท่านและญาติของท่านร่วมทำสิ่งต่างๆ ที่ญาติของท่านชอบด้วยกัน	ไม่	ใช่
6. ท่านนำอาหารที่ญาติของท่านชอบรับประทาน มาให้	ไม่	ใช่
7. ท่านปลอบใจญาติของท่าน	ไม่	ใช่
8. ท่านสัมผัสหรือจับมือญาติของท่าน	ไม่	ใช่
9. ท่านสวดมนต์หรือทำกิจกรรมทางศาสนาพร้อมกับญาติของท่าน เช่น ไหว้พระหรือบูชาสิ่งศักดิ์สิทธิ์	ไม่	ใช่

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่?	ไม่	ใช่
10. ท่านอ่านหนังสือธรรมะหรือคัมภีร์ทางศาสนาที่ญาติของท่านนับถือให้ญาติของท่านฟัง	ไม่	ใช่
11. ท่านนำสิ่งของจากที่บ้านมาให้ญาติของท่าน (ที่ผู้ป่วยต้องการใช้ขณะอยู่ ร.พ)	ไม่	ใช่
12. ท่านทำสิ่งต่างๆที่ญาติของท่านไม่สามารถทำได้ด้วยตนเอง	ไม่	ใช่
13. ท่านช่วยญาติของท่านในการพาไปถ่ายที่ห้องน้ำหรือให้หมอนนอนหรือเก้าอี้ นั่งถ่าย	ไม่	ใช่
14. ท่านช่วยดูแลเรื่องการรับประทานอาหารให้ญาติของท่าน	ไม่	ใช่
15. ท่านช่วยแต่งตัวหรือเปลี่ยนเสื้อผ้าให้ญาติของท่าน	ไม่	ใช่
16. ท่านทำสิ่งต่างๆเพื่อให้ญาติของท่านสุขสบาย	ไม่	ใช่
17. ท่านช่วยญาติของท่านในการดื่มน้ำ	ไม่	ใช่
18. ท่านช่วยอาบน้ำหรือเช็ดตัวให้ญาติของท่าน	ไม่	ใช่
19. ท่านช่วยญาติของท่านพลิกตะแคงตัวบนเตียง	ไม่	ใช่
20. ท่านดูแลความสะอาดส่วนตัว (แปรงฟัน, หวีผม, และตัดเล็บมือ เล็บเท้า) ให้ญาติของท่าน	ไม่	ใช่
21. ท่านพยายามทำสิ่งต่างๆเพื่อให้ญาติของท่านสบายในการดูแลญาติของท่าน เช่น จัดเตรียมของใช้ที่จำเป็น	ไม่	ใช่
22. ท่านช่วยพยุงญาติของท่านในการลุกขึ้นยืนหรือขึ้นลงจากเตียง	ไม่	ใช่
23. ท่านช่วยพยุงญาติของท่านเดิน	ไม่	ใช่
24. ท่านให้กำลังใจแก่ญาติของท่านในการทำสิ่งต่างๆ เช่น การรับประทานอาหาร	ไม่	ใช่

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่?	ไม่	ใช่
25. ท่านดูแลให้ญาติของท่านให้ได้รับในสิ่งที่ต้องการ หรือจำเป็นตองใช่.....	ไม่	ใช่
26. ท่านช่วยทำธุระให้ญาติของท่านเช่น เรื่องการงาน ที่ค้าง, ติดต่อกับบุคคลต่างๆ.....	ไม่	ใช่
27. ท่านให้ข้อมูลต่างๆของญาติของท่านต่อ เจ้าหน้าที่โรงพยาบาล.....	ไม่	ใช่
28. ท่านเรียนรู้ทักษะใหม่ๆในการดูแลญาติของท่านจากเจ้าหน้าที่โรงพยาบาล.....	ไม่	ใช่
29. ท่านเรียนรู้เกี่ยวกับการรักษาพยาบาลที่ ญาติของท่านได้รับ.....	ไม่	ใช่
30. ท่านช่วยดูแลให้ญาติของท่านได้รับประทานยา.....	ไม่	ใช่
31. ท่านซักถามแพทย์พยาบาลเกี่ยวกับการรักษาพยาบาล ญาติของท่าน.....	ไม่	ใช่
32. ท่านดูแลญาติของท่านในระยะพักฟื้นใน โรงพยาบาลตามคำแนะนำของเจ้าหน้าที่.....	ไม่	ใช่
33. ท่านสังเกตสิ่งที่เจ้าหน้าที่ให้การดูแลญาติของท่าน เพื่อที่ท่านจะได้เรียนรู้สิ่งที่ต้องทำเมื่อญาติของ ท่านกลับบ้าน.....	ไม่	ใช่
34. ท่านช่วยเหลือญาติของท่านในการฝึกการหายใจ.....	ไม่	ใช่
35. ท่านออกจากโรงพยาบาลเร็วขึ้นทำให้ท่านมีเวลา เพียงพอที่จะกลับบ้านและพักผ่อน.....	ไม่	ใช่
36. ท่านมีส่วนร่วมในการตัดสินใจเกี่ยวกับการดูแล รักษาญาติของท่าน.....	ไม่	ใช่
37. ท่านจัดวางสิ่งของบน โต๊ะข้างเตียงของญาติของท่าน เช่น ดอกไม้ อาหารบำรุงสุขภาพ.....	ไม่	ใช่

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่?	ไม่	ใช่
38. ท่านนำหนังสือ หรือนิตยสารมาให้ญาติของท่าน	ไม่	ใช่
39. ท่านแจ้งให้ เจ้าหน้าที่โรงพยาบาลทราบ เกี่ยวกับญาติของท่านเคยมีปัญหา	ไม่	ใช่
40. ท่านเล่าให้พยาบาลทราบเกี่ยวกับนิสัย และสิ่งที่ญาติของท่านชอบ	ไม่	ใช่
41. ท่านเล่าให้พยาบาลฟังเกี่ยวกับสิ่งที่ท่านทำ เป็นประจำในการดูแลกิจวัตรส่วนตัว ของญาติของท่านที่บ้าน	ไม่	ใช่
42. ท่านเล่าให้พยาบาลฟังเกี่ยวกับการดูแลอาการทาง ด้านความจำของญาติของท่านที่บ้าน เช่น อาการหลงลืม อาการสับสน	ไม่	ใช่
43. ท่านมั่นใจว่าท่านรับประทานอาหารที่ดี เพื่อให้ร่างกายของท่านแข็งแรง สามารถดูแลและ ช่วยเหลือญาติของท่านได้	ไม่	ใช่
44. ท่านขอร้องให้เพื่อนสนิทหรือญาติมาที่โรงพยาบาล เพื่อให้กำลังใจท่าน.	ไม่	ใช่
45. ท่านเล่าให้พยาบาลฟังเกี่ยวกับการดูแลตนเอง ที่ญาติของท่านทำได้ หรือ ทำไม่ได้ก่อนเข้า โรงพยาบาล.	ไม่	ใช่
46. ท่านบอกพยาบาลว่าทำอะไรจึงจะทำตาม ความต้องการพิเศษของญาติของท่านได้	ไม่	ใช่
47. ท่านคอยติดตามเกี่ยวกับการเปลี่ยนแปลงการใช้ ยาของญาติของท่านขณะที่อยู่ในโรงพยาบาล	ไม่	ใช่

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่?	ไม่	ใช่
48. ท่านคอยติดตามเกี่ยวกับปริมาณน้ำดื่ม และ การถ่ายปัสสาวะของญาติของท่าน และ แจ้งให้พยาบาลทราบ	ไม่	ใช่
49. ท่านคอยดูแลให้แน่ใจว่าญาติของท่านมี น้ำสะอาดไว้ดื่ม	ไม่	ใช่
50. ท่านคอยดูแลให้แน่ใจว่าพยาบาลให้การดูแล ญาติของท่านอย่างเหมาะสม	ไม่	ใช่
51. ท่านหาเวลาพักในช่วงกลางวันขณะ อยู่ที่โรงพยาบาล	ไม่	ใช่
52. ท่านขอให้ญาติคนอื่น ๆ ทำธุระให้ท่านเพื่อที่ท่าน จะสามารถอยู่เผ่าญาติของท่านที่โรงพยาบาล	ไม่	ใช่
53. ท่านพาญาติของท่านมาส่งที่โรงพยาบาล	ไม่	ใช่
54. มีสิ่งอื่นใดที่ท่านทำให้อาการของญาติของท่าน ไปรุดเล้าให้ผู้วิจัยทราบ		

ความยากลำบากในการดูแล

ผู้วิจัยต้องการทราบว่าท่านมีความยากลำบากมากน้อยเพียงไรในแต่ละข้อคำถาม โดยผู้วิจัยมีคำตอบให้เลือก 5 ระดับ คือ ยากมากที่สุด 4, ยากมาก 3, ยากปานกลาง 2, ไม่น้อยยาก 1, หรือไม่ยากเลย 0

ท่านยากลำบากอย่างไรในเรื่องต่อไปนี้

ท่านยากลำบากอย่างไรในเรื่องต่อไปนี้		ยากมากที่สุด	ยากมาก	ยากปานกลาง	ไม่ค่อยยาก	ไม่ยากเลย
1.	มาเฝ้าญาติของท่าน	4	3	2	1	0
2.	ปฏิบัติหน้าที่ของครอบครัวในโรงพยาบาล เช่น นำอาหารที่ ญาติของท่านชอบรับประทานมาให้, ปลอบใจญาติของท่าน	4	3	2	1	0
3.	ติดต่อระหว่างบ้านและโรงพยาบาล เช่นนำสิ่งของ จากบ้านมาให้ญาติของท่าน	4	3	2	1	0
4.	ดูแลกิจวัตรส่วนตัว เช่น ช่วยญาติของท่านใน การรับประทานอาหาร	4	3	2	1	0
5.	แลกเปลี่ยนข้อมูลญาติของท่านระหว่างท่านและ เจ้าหน้าที่ของโรงพยาบาล เช่น ท่านได้ให้ข้อมูลต่างๆ ของญาติของท่านต่อเจ้าหน้าที่โรงพยาบาล, ท่าน ได้เรียนรู้ทักษะใหม่ๆ ในการดูแลญาติของท่านจาก เจ้าหน้าที่โรงพยาบาล	4	3	2	1	0
6.	ให้ความร่วมมือกับเจ้าหน้าที่ในการดูแลกิจวัตรส่วนตัว เช่น ท่านพยายามทำสิ่งต่างๆเพื่อให้ญาติพยาบาล ในการดูแลญาติของท่าน	4	3	2	1	0
7.	ให้ความร่วมมือกับเจ้าหน้าที่ในการดูแลตามแผนการรักษา เช่น ท่านมีส่วนร่วมในการตัดสินใจเกี่ยวกับการดูแล รักษาญาติของท่าน	4	3	2	1	0
8.	ดูแลให้แน่ใจว่าเจ้าหน้าที่ให้การดูแลญาติของท่าน อย่างเหมาะสม	4	3	2	1	0
9.	ดูแลตนเองเช่นท่านได้หาเวลาพักในช่วงกลางวัน ขณะอยู่ที่โรงพยาบาล	4	3	2	1	0

<p style="text-align: center;">ความพร้อมในการดูแล</p> <p>ผู้วิจัยทราบว่าผู้ดูแลบางคนอาจมีความพร้อมในการดูแลคนใดคนหนึ่ง ผู้วิจัยต้องการทราบว่า ท่านมีความพร้อมในข้อคำถามต่อไปนี้เพียงใด</p>					
	ไม่มี ความพร้อม เลย	มี เล็กน้อย	มี ปานกลาง	มี มาก	มี มากที่สุด
1. ท่านคิดว่ามีความพร้อมในการดูแล ความต้องการด้านร่างกายของผู้สูงอายุ มากน้อยเพียงใด?	0	1	2	3	4
2. ท่านคิดว่าท่านมีความพร้อมในการดูแลความ ต้องการด้านอารมณ์ของผู้สูงอายุมากน้อย เพียงใด?	0	1	2	3	4
3. ท่านคิดว่าท่านมีความพร้อมที่จะหาข้อมูล เกี่ยวกับการบริการและจัดหาบริการการดูแล ให้กับผู้สูงอายุมากน้อยเพียงใด?	0	1	2	3	4
4. ท่านมีความพร้อมในการจัดการกับความเครียด ที่เกิดขึ้นระหว่างการดูแลผู้สูงอายุ มากน้อยเพียงใด?	0	1	2	3	4
5. ท่านคิดว่ามีความพร้อมในการดูแลผู้สูงอายุ ให้เกิดความพึงพอใจทั้งตัวท่านเองและ ผู้สูงอายุ มากน้อยเพียงใด?	0	1	2	3	4
6. ท่านมีความพร้อมในการจัดการกับภาวะฉุกเฉิน ที่เกิดขึ้นกับผู้สูงอายุมากน้อยเพียงใด?	0	1	2	3	4
7. ท่านคิดว่าท่านมีความพร้อมในการขอความช่วยเหลือ และขอข้อมูลที่จำเป็นจากทางโรงพยาบาล หรือศูนย์สาธารณสุขได้มากน้อยเพียงใด?	0	1	2	3	4
8. โดยรวมท่านคิดว่ามีความพร้อมในการดูแล ผู้สูงอายุมากน้อยเพียงใด?	0	1	2	3	4

ท่านและผู้สูงอายุ
ผู้วิจัยต้องการทราบว่า ในปัจจุบันนี้ท่านมีความรู้สึกอย่างไรต่อผู้สูงอายุ

	ไม่เลย	เล็กน้อย	บางครั้ง	มาก	มากที่สุด
1. ท่านและผู้สูงอายุมีความเห็นตรงกันในเรื่องต่างๆ มากนักน้อยเพียงใด?	0	1	2	3	4
2. ท่านมีความใกล้ชิดสนิทสนม กับ ผู้สูงอายุ มากนักน้อยเพียงใด?	0	1	2	3	4
3. ท่านมีความสุขที่ได้ร่วมพูดคุยหรือฟังถึงความหลัง กับผู้สูงอายุมากนักน้อยเพียงใด?	0	1	2	3	4
4. ผู้สูงอายุแสดงออกถึงความรู้สึกซาบซึ้งในตัวท่าน และสิ่งที่ท่านปรารถนาดีต่อผู้สูงอายุมากนักน้อยเพียงใด?	0	1	2	3	4
5. ท่านรู้สึกผูกพันกับผู้สูงอายุมากนักน้อยเพียงใด?	0	1	2	3	4
6. ผู้สูงอายุให้ความช่วยเหลือท่านมากนักน้อยเพียงใด?	0	1	2	3	4
7. ท่านชอบนั่งและพูดคุยกับผู้สูงอายุมากนักน้อยเพียงใด?	0	1	2	3	4
8. ท่านมีความรักในตัวผู้สูงอายุมากนักน้อยเพียงใด?	0	1	2	3	4
9. ท่านและผู้สูงอายุให้ความสำคัญ (คุณค่า) กับสิ่งหนึ่ง สิ่งใดในชีวิตพ้องกันมากนักน้อยเพียงใด?	0	1	2	3	4
10. เมื่อท่านมีความทุกข์ ผู้สูงอายุช่วยปลอบใจท่าน ทำให้ท่านรู้สึกสบายใจมากนักน้อยเพียงใด?	0	1	2	3	4
11. ท่านกับผู้สูงอายุ พุดคุยกันอย่างสนุกสนานบ่อย ครั้งเพียงใด?	0	1	2	3	4
12. ท่านปรับตัวเข้ากับผู้สูงอายุมากนักน้อยเพียงใด?	0	1	2	3	4
13. ผู้สูงอายุให้กำลังใจและเห็นใจท่านมากนัก น้อยเพียงใด?	0	1	2	3	4
14. ท่านมีความสุขที่มีเวลาอยู่ด้วยกันกับผู้สูงอายุมาก น้อยเพียงใด?	0	1	2	3	4
15. ผู้สูงอายุ แสดงออกถึงความรักอาทรต่อท่านมาก น้อยเพียงใด?	0	1	2	3	4

Thai Version of Second Interview
(Follow-up phone call the day after discharge)

การดูแลผู้ป่วยของญาติในโรงพยาบาล

สมาชิกในครอบครัวได้มีส่วนร่วมในการดูแลผู้ป่วยในขณะที่เข้ารับการรักษาในโรงพยาบาลในหลายรูปแบบ กรุณาอ่านข้อความที่ปรากฏอยู่ด้านล่าง ผู้วิจัยต้องการทราบว่าท่านได้ปฏิบัติสิ่งต่างๆเหล่านี้ในวันที่ญาติของท่านกลับบ้านหรือไม่ กิจกรรมต่างๆเหล่านี้มิได้ถูกคาดหวังว่าท่านจะต้องปฏิบัติทุกกิจกรรมในนี้ ขอให้ตอบไม่ว่าท่านมิได้ปฏิบัติสิ่งต่างๆเหล่านี้ ขอให้ตอบใช่ถ้าท่านปฏิบัติสิ่งต่างๆเหล่านี้

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่?	ไม่	ใช่
1. ท่านช่วยญาติของท่านเตรียมตัวให้พร้อมที่จะกลับบ้าน.....	ไม่	ใช่
2. ท่านเก็บของต่างๆของญาติของท่านกลับบ้าน	ไม่	ใช่
3. ท่านซักถามเจ้าหน้าที่ของโรงพยาบาลเพื่อทำความเข้าใจกับคำแนะนำก่อนกลับบ้าน	ไม่	ใช่
4. ท่านมีส่วนร่วมรับคำแนะนำก่อนกลับบ้านรวมกับญาติของท่าน	ไม่	ใช่
5. ท่านเรียนรู้ข้อมูลใหม่ๆ จากคำแนะนำของพยาบาลก่อนกลับบ้าน	ไม่	ใช่
6. ท่านเรียนรู้สิ่งต่างๆ เกี่ยวกับการดูแลต่อเนื่องที่บ้านหลังจากจำหน่ายออกจากโรงพยาบาล	ไม่	ใช่
7. ท่านเรียนรู้เกี่ยวกับอุปกรณ์ เครื่องใช้สำหรับการดูแลญาติของท่านเพื่อให้การดูแลที่บ้านง่ายขึ้น	ไม่	ใช่
8. ท่านมีส่วนร่วมในการวางแผนการดูแลญาติของท่านหลังจากออกจากโรงพยาบาล	ไม่	ใช่
9. ท่านไปรับยาให้ญาติของท่านจากเจ้าหน้าที่พยาบาลก่อนกลับบ้าน	ไม่	ใช่
10. ท่านเป็นคนพาญาติของท่านกลับบ้าน	ไม่	ใช่


Thai Version of Third Interview
(At Outpatient Clinic)

กิจกรรมการดูแล

ผู้วิจัยต้องการทราบเกี่ยวกับการดูแลผู้สูงอายุผู้ดูแลบางท่านอาจไม่มีปัญหาแต่บางท่านมีความยากลำบากในการดูแลทั้งด้านร่างกายและอารมณ์ ขอคำถามข้างล่างนี้จะเกี่ยวข้องกับความช่วยเหลือที่ท่านให้กับผู้สูงอายุ ผู้วิจัยต้องการทราบว่า ท่านใดให้การดูแลผู้สูงอายุในสิ่งเหล่านี้หรือไม่ ท่านมีความยากลำบากมากน้อยเพียงไรในแต่ละข้อคำถาม ขอให้ท่านตอบ ไม่ถ้าท่านไม่ได้ให้ความช่วยเหลือในสิ่งนั้น หรือผู้สูงอายุไม่มีปัญหาเหล่านั้นเลย ขอให้ท่านตอบ ใช่ถ้าท่านได้ให้ความช่วยเหลือในสิ่งนั้น และกรุณาบอกระดับความยากลำบากในการให้ความช่วยเหลือ โดยผู้วิจัยมีคำตอบให้เลือก ๕ ระดับ คือ ยากมากที่สุด, ยากมาก, ยากปานกลาง, ไม่ค่อยยาก, ไม่ยากเลย

ท่านได้ช่วยผู้สูงอายุ ทำสิ่งดังต่อไปนี้		ใช่, ท่านมีความยากลำบากในการทำสิ่งต่อไปนี้มากน้อยเพียงไร						
		ไม่	ใช่	ยากมากที่สุด	ยากมาก	ยากปานกลาง	ไม่ค่อยยาก	ไม่ยากเลย
1. ท่านต้องช่วยผู้สูงอายุในการเดินภายในบ้าน เช่น จูงแขน หรือนำที่หัดเดินมาให้ผู้สูงอายุหรือไม่?	ไม่	ใช่	4	3	2	1	0	
2. ท่านต้องช่วยผู้สูงอายุออกเดินรอบๆนอกบ้านหรือไม่?	ไม่	ใช่	4	3	2	1	0	
3. ท่านต้องคอยดูให้อยู่ในสายตาเสมอเพื่อให้แน่ใจว่าผู้สูงอายุปลอดภัยหรือไม่?	ไม่	ใช่	4	3	2	1	0	
4. ท่านช่วยผู้สูงอายุในการรับประทานยาหรือไม่?	ไม่	ใช่	4	3	2	1	0	
5. ท่านช่วยผู้สูงอายุในการรับประทานอาหารหรือไม่?	ไม่	ใช่	4	3	2	1	0	
6. ท่านระวังไม่ให้ผู้สูงอายุหกล้มหรือไม่?	ไม่	ใช่	4	3	2	1	0	
7. ท่านช่วยผู้สูงอายุตัดสินใจเกี่ยวกับการดูแลรักษาสุขภาพที่สำคัญ เช่น การผ่าตัด หรือเปลี่ยนการรักษาหรือไม่?	ไม่	ใช่	4	3	2	1	0	
8. ท่านพยายามให้ผู้สูงอายุยังคงทำกิจวัตร และทำสิ่งต่างๆ ที่ผู้สูงอายุชอบ หรือไม่?	ไม่	ใช่	4	3	2	1	0	

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่? <input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่		ถ้าใช่, ท่านมีความยากลำบาก ในการทำสิ่งต่อไปนี้มากน้อยเพียงไร				
		ยากมากที่สุด	ยากมาก	ยากปานกลาง	ไม่ค่อยยาก	ไม่ยากเลย
9. ท่านเล่าถึงอาการเปลี่ยนแปลงต่างๆ ของผู้สูงอายุ ให้หมอที่ตรวจรับทราบหรือไม่	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
10. ท่านเล่าถึงอาการเปลี่ยนแปลงทางด้านสุขภาพ ของผู้สูงอายุให้พยาบาล หรือเจ้าหน้าที่ที่มสุขภาพ รับทราบหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
11. ท่านอุ้มหรือช่วยพยุงผู้สูงอายุจากที่หนึ่งไปยังอีกที่หนึ่ง เช่น ช่วยอุ้ม หรือ พยุงผู้สูงอายุจากเตียงลงนั่งเก้าอี้ หรือไม่? (ตอบไม่ ถ้าผู้สูงอายุของท่านทำตัวเอง)	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
12. ท่านดูแลให้ผู้สูงอายุได้รับน้ำเพียงพอหรือไม่? (ตอบไม่ ถ้าผู้สูงอายุ ไม่มีปัญหานี้)	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
13. ท่านช่วยผู้สูงอายุอาบน้ำ หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
14. ท่านต้องจัดการกับความหวาดระแวง หรือช่างสงสัย ของผู้สูงอายุหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
15. ท่านมีส่วนร่วมในกิจกรรมร่วมกับผู้สูงอายุ เช่น ดูโทรทัศน์ หรือฟังวิทยุ หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
16. ท่านต้องจัดการเมื่อผู้สูงอายุร้องไห้ หรือไม่? (ตอบไม่ ถ้าผู้สูงอายุ ไม่มีปัญหานี้)	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
17. ท่านดูแลให้ผู้สูงอายุได้รับประทานอาหารตามชนิด หรือปริมาณที่ผู้สูงอายุ ควรจะได้หรือไม่? (ตอบไม่ ถ้าผู้สูงอายุของท่านทำตัวเอง)	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
18. ท่านต้องทำความสะอาดเมื่อผู้สูงอายุปัสสาวะราด หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
19. ท่านช่วยเขียนหนังสือให้ ผู้สูงอายุหรือไม่? (ตอบไม่ ถ้าผู้สูงอายุของท่านทำตัวเอง)	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0

		 ถ้าใช่, ท่านมีความยากลำบาก ในการทำสิ่งดังต่อไปนี้มากน้อยเพียงไร					
ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้อหรือไม่? ไม่		ใช่	ยากมากที่สุด	ยากมาก	ยากปานกลาง	ไม่ค่อยยาก	ไม่ยากเลย
20. ท่านต้องจัดการกับการที่ผู้สูงอายุส่งเสียงดัง หรือไม่? (ตอบไม่ ถ้าผู้สูงอายุ ไม่มีปัญหานี้)	ไม่	ใช่	4	3	2	1	0
21. ท่านพูดคุยกับผู้สูงอายุในเรื่องอนาคตการดำรงชีวิต หรือเป้าหมายชีวิตของผู้สูงอายุ หรือไม่?	ไม่	ใช่	4	3	2	1	0
22. ท่านดูแลผิวหนังและทาโลชั่นให้ผู้สูงอายุ หรือไม่?	ไม่	ใช่	4	3	2	1	0
23. ท่านต้องรับฟังและตอบคำถามของ ผู้สูงอายุที่ถามซ้ำ แล้วซ้ำอีก หรือไม่?	ไม่	ใช่	4	3	2	1	0
24. ท่านต้องช่วยเหลือ ผู้สูงอายุขึ้น และลงบันไดหรือไม่? ไม่	ไม่	ใช่	4	3	2	1	0
25. ท่านช่วยผู้สูงอายุแปรงฟัน หรือทำความสะอาด ฟันปลอม หรือไม่?	ไม่	ใช่	4	3	2	1	0
26. ท่านดูแล อุปกรณ์การแพทย์ที่ใช้กับผู้สูงอายุ หรือ ช่วยผู้สูงอายุ ติดตั้งอุปกรณ์การแพทย์ เช่น ออกซิเจน, ท่ออาหารสายยาง, สายน้ำเกลือ, และ สายสวนปัสสาวะ หรือไม่?	ไม่	ใช่	4	3	2	1	0
27. ท่านต้องจัดการกับปัญหาเหนื่อยล้าไม่มีแรงของ ผู้สูงอายุหรือไม่?	ไม่	ใช่	4	3	2	1	0
28. ท่านต้องเฝ้าระวังผู้สูงอายุไม่ให้ออกนอกบ้าน เนื่องจากกลัวผู้สูงอายุ พลาดหลงทาง หรือกลับบ้าน ไม่ถูก หรือไม่?	ไม่	ใช่	4	3	2	1	0
29. ท่านช่วยผู้สูงอายุสวมเสื้อผ้า หรือถอดเสื้อผ้า หรือไม่? ไม่	ใช่	4	3	2	1	0	
30. ท่านต้องคอยดูแลอาการของผู้สูงอายุให้คนใน ครอบครัวทราบหรือไม่?	ไม่	ใช่	4	3	2	1	0

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่? ไม่		ใช่	ถ้าใช่, ท่านมีความยากลำบาก ในการทำงานดังต่อไปนี้มากน้อยเพียงไร				
			ยากมากที่สุด	ยากมาก	ยากปานกลาง	ไม่ค่อยยาก	ไม่ยากเลย
31. ท่านนั่งเป็นเพื่อนผู้สูงอายุหรือไม่?	ไม่	ใช่	4	3	2	1	0
32. ท่านต้องเดินกลางคึกเพื่อดูแลผู้สูงอายุหรือไม่?	ไม่	ใช่	4	3	2	1	0
33. ท่านต้องช่วยเหลือดูแลผู้สูงอายุเมื่อผู้สูงอายุ มีภาวะอารมณ์ขึ้นๆลงๆ หรือไม่?	ไม่	ใช่	4	3	2	1	0
34. ท่านต้องจัดการกับปัญหาเรื่องความไม่ปลอดภัย ในการขับรถของผู้สูงอายุหรือไม่? (ตอบไม่ ถ้าผู้สูงอายุ ไม่มีปัญหานี้)	ไม่	ใช่	4	3	2	1	0
35. ท่านต้องจัดการกับการที่ผู้สูงอายุมีความจำและเลือน, จำคนและสถานที่ไม่ได้ หรือไม่?	ไม่	ใช่	4	3	2	1	0
36. ท่านต้องคอยตรวจตรา ดูแลและรักษาปัญหาเกี่ยวกับ ผิวหนังของผู้สูงอายุ หรือไม่?	ไม่	ใช่	4	3	2	1	0
37. ท่านตรวจตราว่า ผู้สูงอายุยังอยู่ดีหรือไม่?	ไม่	ใช่	4	3	2	1	0
38. ท่านต้องจัดการกับอาการประสาทหลอนของผู้สูงอายุ หรือไม่? (ตอบไม่ ถ้าผู้สูงอายุ ไม่มีปัญหานี้)	ไม่	ใช่	4	3	2	1	0
39. ท่านคอยระวังไม่ให้ผู้สูงอายุได้รับอันตรายจาก สารพิษ เช่นกินยาเกินขนาด หรือได้รับสารพิษ ที่ใช้ในบ้าน หรือไม่?	ไม่	ใช่	4	3	2	1	0
40. ท่านต้องทำความสะอาดเมื่อผู้สูงอายุอุจจาระราด หรือไม่?	ไม่	ใช่	4	3	2	1	0
41. ท่านต้องช่วยเหลือผู้สูงอายุ ในปัญหาเรื่องท้องผูก หรือท้องเดินหรือไม่?	ไม่	ใช่	4	3	2	1	0
42. ท่านต้องจัดการกับของผู้สูงอายุหรือไม่?	ไม่	ใช่	4	3	2	1	0
43. ท่านต้องช่วยพาผู้สูงอายุ เข้าห้องน้ำหรือไม่?	ไม่	ใช่	4	3	2	1	0

ท่านได้ช่วยเหลือญาติของท่านในสิ่งที่กล่าวนี้หรือไม่? <input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่		ถ้าใช่, ท่านมีความยากลำบากในการทำสิ่งดังต่อไปนี้มากน้อยเพียงไร				
		ยากมากที่สุด	ยากมาก	ยากปานกลาง	ไม่ค่อยยาก	ไม่ยากเลย
44. ท่านต้องระวังหรือดูแลรักษาการติดเชื้อของผู้สูงอายุหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
45. ท่านช่วยผู้สูงอายุใช้ส้วม หรือ หมอนอน (กระโถน) หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
46. ท่านต้องจัดการกับปัญหาของผู้สูงอายุเกี่ยวกับการใส่กุญแจ หรือ ล็อคกลอนประตู หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
47. ท่านต้องดูแลผู้สูงอายุให้พักผ่อนอย่างเพียงพอหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
48. ท่านได้ทำสิ่งเหล่านี้ เช่น จับมือ หรือ ลูบหลังผู้สูงอายุหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
49. ท่านต้องช่วยผู้สูงอายุในปัญหาด้านการหายใจหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
50. ท่านต้องช่วยจัดการกับอาการเจ็บปวดทางด้านร่างกายของผู้สูงอายุหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
51. ท่านต้องช่วยจัดการกับการที่ผู้สูงอายุหุบติหรือผลัดคนอื่น หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
52. ท่านต้องเฝ้าระวังไม่ให้ผู้สูงอายุมีอาการบวมเกิดขึ้นหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
53. ท่านช่วยผู้สูงอายุ ดูแลผม หรือ สระผมหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
54. ท่านช่วยบอกผู้สูงอายุริเริ่มทำกิจกรรมในแต่ละวันหรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0
55. ท่านช่วยผู้สูงอายุ ใช้โทรศัพท์หรือไม่?	<input type="checkbox"/> ไม่ <input type="checkbox"/> ใช่	4	3	2	1	0

<p style="text-align: center;">ความเป็นห่วง</p> <p>ผู้วิจัยต้องการทราบว่าท่านกังวลใจเกี่ยวกับข้อคำถามเหล่านี้มากน้อยเพียงไร</p>					
	ไม่เลย	น้อยครั้ง	บ้างบางครั้ง	มาก	มากที่สุด
1. สุขภาพของผู้สูงอายุ?	0	1	2	3	4
2. การได้รับความช่วยเหลืออย่างเพียงพอในสิ่งที่ท่าน ไม่สามารถทำให้กับ ผู้สูงอายุได้?	0	1	2	3	4
3. อารมณ์ หรือสภาวะจิตใจของผู้สูงอายุ?	0	1	2	3	4
4. ปัญหาทางการเงินอันเนื่องมาจากการดูแลผู้สูงอายุ มากน้อยเพียงใด?	0	1	2	3	4
5. ความสามารถของท่านที่จะให้การดูแลผู้สูงอายุในอนาคต เนื่องจากสุขภาพของตัวเอง?	0	1	2	3	4
6. ความปลอดภัยเมื่อผู้สูงอายุใช้เตาผิงการหุงต้ม?	0	1	2	3	4
7. ถ้าผู้สูงอายุมีอาการเลวลงท่านจะให้การดูแลผู้สูงอายุ ได้อย่างไร?	0	1	2	3	4
8. การทิ้งผู้สูงอายุไว้ตามลำพังเมื่อท่านต้องออกไปทำธุระ นอกบ้าน (ถ้าท่านไม่เคยทิ้งผู้สูงอายุไว้ตามลำพัง ให้สมมติว่าท่านต้องออกไปทำธุระนอกบ้าน และ ต้องทิ้งผู้สูงอายุไว้ตามลำพังท่านจะมีความกังวล มากน้อยเพียงใด)?	0	1	2	3	4
9. ความปลอดภัยของผู้สูงอายุ เนื่องจากปัญหาที่ถูกรถยนต์, รถมอเตอร์ไซด์, ตุ๊กตา, สามล้อหรือจักรยานยนต์ เมื่อผู้สูงอายุออกนอกบ้าน?	0	1	2	3	4
10. อนาคตของตัวเอง?	0	1	2	3	4
11. ใครจะดูแลผู้สูงอายุ หากท่านเป็นอะไรไป?	0	1	2	3	4
12. ความปลอดภัยของผู้สูงอายุ เนื่องจากมีปืนหรือ อาวุธอื่นๆ ในบ้าน?	0	1	2	3	4

ความเป็นห่วง
ผู้วิจัยต้องการทราบว่าท่านกังวลใจเกี่ยวกับข้อคำถามเหล่านี้มากน้อยเพียงไร

	ไม่เคย	น้อยครั้ง	บ้างบางครั้ง	มาก	มากที่สุด
13. การช่วยเหลือ หรือคำแนะนำ ที่ได้รับจากแพทย์ และพยาบาล นั้นเพียงพอในการดูแลผู้สูงอายุ? 0		1	2	3	4
14. ความปลอดภัยเมื่อผู้สูงอายุ ใช้ของมีคม เช่น มีด หรือ เครื่องใช้ไฟฟ้าต่างๆ? 0		1	2	3	4
15. การที่ท่านดูแลผู้สูงอายุ ที่เจ็บป่วยนั้นส่งผลเสียต่อ คนในครอบครัวคนอื่น? 0		1	2	3	4
16. ผู้สูงอายุจะมีอาการของโรครุนแรงมากขึ้น? 0		1	2	3	4
17. มีสิ่งใดบ้างที่ท่านมีความกังวลนอกเหนือจากนี้					
ก) 0		1	2	3	4
ข) 0		1	2	3	4
ค) 0		1	2	3	4

ประสบการณ์โดยทั่วไปของท่านในการดูแลผู้สูงอายุ

1. จากการพูดคุย กับผู้ดูแลบางคนเราทราบว่าผู้ดูแลบางคนรู้สึกว่าการดูแล ผู้สูงอายุ ทำให้ขาดอิสระ ในขณะที่บางคนไม่รู้สึกเช่นนั้น สำหรับตัวท่านเอง ท่านรู้สึกว่าการดูแลผู้สูงอายุ ทำให้ขาดอิสระ มากน้อยเพียงใด?

ไม่รู้สึกเลยว่าการขาดอิสระ 0
 รู้สึกบ้างเล็กน้อย 1
 รู้สึกขาดอิสระปานกลาง 2
 รู้สึกขาดอิสระค่อนข้างมาก 3
 รู้สึกขาดอิสระมากที่สุด 4

2. บ่อยครั้งเพียงใด ที่ท่านรู้สึกว่าการดูแลผู้สูงอายุ มีความยากลำบาก?

ไม่เคยเลย 0
 นานๆครั้ง 1
 บ้างครั้ง 2
 บ่อยครั้ง 3
 เป็นประจำ 4

3. ท่านรู้สึกเครียดต่อการรับผิดชอบในสิ่งต่างๆ รวมทั้งการดูแลผู้สูงอายุมากน้อยเพียงใด?

ไม่เครียดเลย 0
 เครียดเล็กน้อย 1
 เครียดปานกลาง 2
 เครียดมาก 3
 เครียดมากที่สุด 4

4. ในการดูแลผู้สูงอายุท่านรู้สึกว่าได้รับผลดี และผลเสียอย่างไร?

มีผลดีมากกว่าผลเสียอย่างมาก 4
 ค่อนข้างไปทางด้านผลดีมากกว่าผลเสีย 3
 มีผลดีและผลเสียเท่ากัน 2
 ค่อนข้างไปทางมีผลเสียมากกว่าผลดี 1
 มีผลเสียมากกว่าผลดีมาก 0

Appendix H

A Chart Review Form

A Chart Review Form

ID number _____

Age _____

Sex _____

Race _____

Marital status _____

Diagnosis _____

Admission Date _____

Discharge Date _____

Length of stay _____

The condition before Discharge

	Independent	Needs assistance	Dependent
Eating			
Bathing			
Dressing			
Walking			
Transferring			
Voiding			
Elimination			

Communication

- ☐ Makes need known consistently
- ☐ Difficult to understand consistently
- ☐ Unable to make needs known

Level of conscious

- ☐ Oriented to person, place, and time
- ☐ Oriented to persons only
- ☐ Not oriented to person, place, and time.