CHAPTER 2

Literature Review

This literature review is presented in five sections including the elderly dependency, family caregiving of dependent elders, capacity building, care ability, quality of care, and the conceptual framework of this study. The details are presented as follows:

Elderly Dependency

The Definition Elderly Dependency

Dependency is defined as a state which help and support from another person are needed (Thai Royal Dictionary, 2003). The elderly dependency is defined as dependency in people 60 years of age or older which is brought on by impairments in physical, mental, socioeconomic or environmental aspects. This definition can be extended to include any situation from any cause where the dependent person is in need of assistance in activities of daily living, or basic needs of living. Jithapunkul (2001) described elderly dependency as a state of impairment of doing various activities independently without assistance. Comin (2005) defined elderly dependency as a state where the elderly needs assistance from caregivers to accomplish daily activities to meet his basic need as well as the need for love, warmth and security. In addition to dependency due to impairment in performance of activities of daily living, the elderly also needs support physically, psychologically and socially as well as economically and environmentally (Choowattanapakorn, Pothiban, & Rhiantong, 2007; Comin, 2005; Jithapunkul, 2001; O'Shea, 2002; Sritamrongsawas & Boonthamcharoen, 2010).

The dependent elder also encompasses psychological and social needs. Boonthamcharoen (2009) described dependent elders in terms of persons who need caring, financial support, education, provision with basic needs, mental support, help in problem-solving, keeping company, recognition of their value, and help in various

activities as needed. The dependent elderly requires care and protection from their caregivers. Dependent elderly also includes elderly people who cannot independently perform activities of daily living such as bathing, cleaning, dressing, toileting, movement, feeding, shopping, financial management, cooking and house cleaning (Sritamrongsawas & Boonthamcharoen, 2010). All the definitions agreed that elderly dependency is a state of impairment in physical, mental, social, environmental, and economical functions that are involved in activities of daily living causing difficulties which need support from caregivers in order to be able to meet needs of living.

The Characteristics of Elderly Dependency

The characteristics of elderly dependency vary and are of different complexities depending on the characteristics of the elderly, their families and society. Baltes (1996) described 3 characteristics of elderly dependency as follows.

Multidimensionality. The dependent elder is dependent in different aspects and different levels such as the personal level and interpersonal level which cause dependency. Dependency includes aspects of physical, mental, emotional, economical, and social function. The perception of impairment or dependency differs depending on definitions and protocols used to evaluate dependency and research methodology.

Multifunctionality. The elderly dependency is the practical dependent at some extent which requires support in various aspects. Multifunctional characteristic depends on individual and cultural context. For example, some elderly people with illnesses may need help in activities that they cannot perform themselves but may be able to function independently in other aspects.

Multicausality. There are multiple causes of dependency which can cause a person to become dependent at any age of their lives. A person can be dependent in physical, mental, socioeconomic, environment and cultural aspects. Elderly people experiencing deterioration of physical functions may have problems in perception which are caused by chronic physical and mental illness, treatment of disease, or complications of chronic diseases and worsen dependency. This contributes to

diminished social function of the elderly and plays a role in the development of elderly dependency.

As described, elderly dependency is characterized by multidimensional, multifunctional and multi-causal which are physical, mental, emotional, socioeconomic, environmental, and cultural. These factors can contribute to the development of disease and limitations in various aspects of life. The dependent elder needs help from others in activities that they cannot independently perform.

Classification of Elderly Dependency

Elderly dependency can be categorized into physical dependency which is impairment in performing activities of daily living, psychological dependency, economical dependency, social dependency and health dependency.

Physical dependency or impairment in performing activities of daily living. Impairment in doing basic daily activities is due to degeneration of the body causing impairment in the neuromuscular, cardiovascular, respiratory and alimentary systems resulting in physical disabilities such as loss of balance, frequent falls, memory loss, fatigue and incontinence. All this leads to the inability to perform even basic activities of daily living. Physical dependency includes the need for assistance in performing basic activities of daily living that is essential for staying alive and more complex tasks that are also necessary such as commuting, purchasing goods, counting change money, house cleaning and cooking. According to the fourth national Thai health survey in 2008 to 2009 which studied the prevalence of elderly dependency among Thai elderly people aged 60 and above, it was found that 15.5 percent of elderly people cannot independently perform at least 2 basic tasks of daily living or had problems with incontinence. The rate of dependency has risen since the third national health survey in 2004 which found that 12.8 percent of elderly people had dependency of which 9.6 percent were male and 15.4 percent were female. Apparently, there are more women who have a dependency than are men. Furthermore, 0.6 to 11.9 percent of elderly people have some limitations in performing one of these following activities which include bathing, dressing, eating, moving from their bed, toileting, moving around the house and bowel or bladder control. Regarding complex activities of daily living which

requires the use of instruments, 4 to 36.5 percent of elderly people have a dependency in this aspect. These activities include buying goods, counting change money, taking medication, house work, cutting toenails, activities outside the house, going to the market with an average distance of 100 meters from home, driving, using public transportation and using the telephone (Aekpalakorn et al., 2010). It is necessary to recognize that physical dependency stems from the impairment of bodily functions of the elderly which prompts the need for assistance in performing both basic and complex activities of daily living.

Psychological dependency. It is an internal mental state of the elderly that perceives and thinks about certain situations. The elderly experiencing changes both internally and externally, apart from reduced social role and impaired functions in daily living, change in the psychological aspect is commonly encountered. The elderly who have stress, anxiety, loneliness, worries about their surroundings, and high anxiety level and afraid of change tend to get more upset than adults and can feel unsatisfied and bored with their lives. This prompts the need for care from the community and family members (Chansirikanchana, 2009). The fourth national health survey during 2008 and 2009 revealed that depression is among one of the relevant mental health problems in elderly people and carry a high level of disease burden. The overall prevalence of depression is 4.6 percent and rises in proportionally with increased age. Elderly women have twice as likely depression than men in all age groups (Aekpalakorn et al., 2010). Psychological dependency is an critical issue that must be addressed by the family and society.

Social dependency. A society is the interaction of a number of individual members coexisting under a common rule. A family is a form of societal interaction as are communities where each member shares a responsibility to the society. Elderly people have reduced social roles and lose their previous leadership status and may enjoy less respect from other members of the society. This is one of the causes of psychological problems and reduces their social interaction. According to surveyed social indicators regarding the well-being of elderly people, it was found that elderly people who live alone or live only with their spouses are at high risk of not receiving appropriate care from the society when compared with those that live with other family

members that are ready to provide care for them when needed. According to a survey, there are often three generations in a family from elderly people live with their children, which accounts for 64.1 percent of elderly men and 67.8 percent of elderly women. They also found that 13.8 percent of elderly people needed assistance with at least one activity of daily living. Elderly people who are totally dependent on their families account for 0.9 percent (Aekpalakorn et al., 2010). The daughter is the one who most commonly cares for the elderly followed by the son and spouse. Even the elderly who live alone or only with their spouse need care from the society including neighbors and health volunteers. Organizing an elderly support group is another way for elderly people to get social support. In the present, there are 19,970 support groups in Thailand (Sritamrongsawas & Boonthamcharoen, 2010). However, it was also found that overall only 21.1 percent of members in these groups actually participate in group activities. The group formed in the rural areas can motivate members up to 71.8 percent to participate in activities (National Statistics Office, 2008). In Thai society, the elderly receive care primarily from their families and neighbors, volunteers and support groups. Even though a community-wide system of care is not yet commonplace or adequate but it is evolving into an important part of caring for the elderly.

Economical dependency. It is the limitation or inadequacy of income, spending and purchasing essential items in basic daily living of the elderly. The elderly have diminishes social roles which impact their social and financial security. From the a survey regarding financial status of the elderly, employment status, type of work, amount of income, financial support, sufficiency of income, and the proportion of elderly people who fall below the poverty line, it was found that 38.8 percent of elderly people have occupations which indicate that they are capable of working and that their expertise is valued by the society. However, as they age, the proportion of elderly people who still work decreases. Only 8.8 percent of those eighty years of age or older still work and among this 75.2 percent is private business (Aekpalakorn et al., 2010). The reason the elderly still have to work is to maintain income of themselves and family. Other sources of income include savings, pensions, retirement funds and insurance money. In 2007, The National Economic and Social Development Committee proposed that the poverty line was 1,443 baht and 32.5 percent of elderly people fall

below it. Other factors that influence the economical status of the elderly include work status, economical activities, access to social welfare, security money and savings. The Foundation of Thai Gerontology Research and Development Institute (2009) described that working status and having savings influence elderly people to be independent, have value in their lives and don't become burdens to their children. (Aekpalakorn et al., 2010). Furthermore, the National Savings Fund has issued a policy to encourage savings for retirement which can be done both obligatory and voluntarily. This can help reduce the problem of lack of savings in old age and reduce financial dependency. It is necessary to take action in this respect since the population is ageing. Today six people in the workforce care for one elderly person but this estimate is predicted to be reduced to four working people caring for one elderly in the near future. The dependency rate in 2009 was 15.7 percent and is estimated to rise to 16.37 percent and 17.23 percent by the year 2011 and 2013 respectively. Elderly people with economical dependency have problems with daily life, self-care and healthcare. The government has policies that aid in working, social welfare, security funds and long-term savings for old age. However, there are still 1 in 3 elderly people who have economical problems.

Health dependency. It is the state of dependency due to limitations of self-care of the elderly. From a medical point of view it can be seen in different aspects. Jithapunkul (2001) described elderly dependency which stems from change and degeneration of the body function causing illnesses and disease states. Impairment is physical or psychological dysfunction manifesting in changing of normal bodily functions which impact performance of various activities leading to a disability handicap state which prevents the person from functioning normally. The World Health Organization defines health as being physical and psychological well-being and being able to carry out activities of daily living, being mentally sound, can carry out normal function, intact brain function including memory and knowledge, as well as being able to access healthcare services and living in an appropriate environment. (Bureau of Health Promotion, Department of Health, Ministry of Public Health, 2010).

Elderly people with dependency often have some degree of impairment causing disabilities. The Bureau of Health Promotion, Department of Health, Ministry of Public Health (2010) determined that 1 in 4 elderly people in Thailand have some forms of

disability (18.9 percent) of the time, the disabilities prevent them from carrying out activities that they used to be able to do. This causes them to be dependent on others in doing activities of daily living. Important health problems include arthralgia, chronic low back pain and common chronic diseases including hypertension and diabetes mellitus. This report was in agreement with the findings of the study of Aekpalakarn et al. (2010) which found that the prevalent diseases in the elderly include arthritis (24%), cardiovascular risks include hypertension (48%), metabolic syndrome (36.8%), abdominal obesity (36%) and diabetes mellitus (15.9%). Regarding degenerative diseases, including cataract, chewing problems, eyesight problem, the prevalence of cataract was 22.1 percent of which 52.8 percent received treatment. Elderly people with less than 20 teeth account for 54 percent but received dentures in only 29.1 percent. Hearing problems comprise 28 percent among which only 2.3 percent received hearing aids.

In addition to the medical aspect of health problems, there are also the environmental and ergonomic aspects of household environment. The survey collected by Aekpalakarn et al. (2010) described household structure and protection against indoor accidents. It was found that forty percent of the households were single storey with elevated floor. Only 25 percent of households were adapted to suit the needs of the elderly. Handrails were present in 57 percent of staircases from only 3 percent had handrails in the bedroom and only 10 percent in bathrooms. Most households were equipped with squat toilets (71%). The prevalence of falls in bathrooms during the past six was 18.5 percent. It can be realized that health dependency encompasses physical impairment, chronic illness, environmental and ergonomic risks.

Classification of Dependent Elderly

The dependent elders can be categorized by the level of dependency by assessing performance in different activities or physical functions. Dependent elderly can be categorized by the following means.

Categorization by the ability to perform activities of daily living. This system is widely used nationwide by the Department of Health, Ministry of Public Health. Elderly people are categorized according to their ability to care for themselves in

performing activities of daily living. Based on these criteria, dependent elderly can be categorized into three groups as follows:

The independent group. Older persons who belong to this group of the elderly are healthy even if they have chronic medical illnesses, the illness is well controlled. They have the potential to participate in social activities, or form a club or group. The elderly persons are categorized in this group if they can walk up and down stairs without help, can go out of the house, are able to feed themselves and can use the toilet independently.

The partially dependent group or housebound group. This group comprises of elderly people who can care for themselves in some aspects and need assistance in others. They may have chronic illnesses, may be partially disabled and need help in some activities of daily living. People in this category cannot independently walk on a horizontal surface and need a walking assistance device, they need help for eating and may frequently spill the food, and assistance in toileting is also needed.

The dependent group or bedridden group. The elderly in this group cannot care for themselves and have significant disabilities which prevent them from doing activities of daily living as well as care for their own health. They need help moving in both lying and sitting position. They have difficulty in swallowing even when fed and may need tube feeding. Toileting is done at their bed and need diapers.

This system of classification helps village health volunteers to evaluate and categorize elderly people in order to better manage healthcare resources to suit each individual and to serve as basic services in order to localize budget for each community to be utilized by community and health promoting hospitals.

Linchong Pothiban and colleagues (2010) developed criteria to classify elderly people into three groups using the criteria of ability to perform activities within and outside the house. These criteria were developed to help village health volunteers who were responsible for providing basic health care for older persons residing in the community. Items that are evaluated include eating, dressing, bathing, toileting,

movement in the house and activities outside the house. Elderly people can be categorized into three groups as follows.

The independent group. It includes the elderly that can care for themselves in all activities of daily living. They can independently complete all six tasks including eating, dressing, bathing, toileting, movement around the house and activities outside the house.

Low level of dependency. Elderly people will be classified into this group if they can perform all basic activities of daily living including eating, dressing, bathing, toileting, movement within the house but need assistance in complex activities specifically activities outside the house.

High level of dependency group. Elderly people in this group need help in some or all of the basic activities of daily living and complex activities of daily living.

Categorization according to performance. Sutthichai Jithapunkul (2001) modified the Barthel Index to better suit for Thai people and is now in use by the name of Chula ADL Index (CAI) which divides elderly people into 4 groups as follows.

Mildly severe dependence. Elderly people in this group need some help from others but generally are able to perform most activities of daily living.

Moderately severe dependence. Elderly people in this group need a moderate amount of help from others in performing activities of daily living.

Severe dependence. Elderly people in this group need much help from others in performing activities of daily living.

Totally dependence. Elderly people in this group require assistance in performing all activities of daily living.

Categorization by long term care system. This approach is done according to the article 11 of the joint resolution by the National Health Assembly regarding long term care for elderly people with dependency. The committee issues guidelines to

follow in order to care for the dependent elders in the long term. They categorized elderly people into two groups based on the nursing care needed.

Level 1 elderly people. This defines people age 60 or older which have diminished capacity of performing activities of daily living due to old age. They are cared for at their own home.

Level 2 elderly people. This includes elderly people who are dependent due to chronic illnesses, disabilities, or handicapped status. People in this group need specialized nursing care.

Classification of dependent elder is in the process done by the National Health Assembly in order to create standard practice guidelines to meet the needs of society in caring for the elderly. Therefore, in the present time, there is not yet a finished interview form that is used to score and categorize the elderly. However, at this time, the elderly can be roughly grouped into two groups based on nursing care needs as previously mentioned.

Factors Related to Elderly Dependency

Factors that influence elderly dependency come from the elderly, their family and society. According to literature, these factors include personal factors, health factors, relationships in family and the environmental factors as follows:

Personal factors. Personal factors compose of age, sex, marital status, educational level, work status and income. These factors all affect dependent elders.

Age. Elderly dependency increases as a person ages because of the degeneration of various organs inhibiting ability to perform activities of daily living. This is one reason that the elderly need assistance in various tasks and as the person ages, impairment increases so does the level of dependency. The results from a study about elderly dependency from disability states in Thai elderly people in the Klong Toei community by Jithapunkul (1994) found that age was related to dependency. Another study done in an assisted care facility found that age was significantly related to dependency with a *p* value of 0.000 (Horbunlerkit, Kamolratanakul, & Suteparuk, 1995;

Jitapunkul, Horbunlerkit, Kamolratanakul, & Suteparuk, 1995; Jithapunkul, Kamolratanakul, Chandraprasert, & Bunnangm, 1994).

Sex. Female is more prone to becoming dependent compared with male since they account for a larger number in the elderly population and tend to live longer than male. Elderly women often need assistance due to physical and psychological changes, disease states which cause impairments and limitations (Jithapunkul, 2001). A study about dependent elder from disability states in Thai elderly people in the Klong Toei community found that female sex was significantly related to dependency in performing basic activities of daily living with a *p* value of .0005 (Jithapunkul et al., 1994).

Marital status. Becoming a widow is a life-changing event, losing a life companion that used to care for one another. The widow must adapt to living alone and this could affect them both physically and psychologically and may lead to dependency. A study about elderly dependency from disability in Thai elderly people in the Klong Toei community found that widowed status was significantly related to dependency in performing basic activities of daily living with a *p* value of .0065 (Jithapunkul et al., 1994).

Educational level. Elderly dependency related with lower educational level or illiteracy. This is because people with lower education or illiteracy cannot learn or do not have the knowledge to care for their own well-being leading to loss of opportunity to access healthcare systems and cause a state of dependency. A study about elderly dependency in Thai elderly people in the Klong Toei community and elderly people living in assisted care facilities found that lower educational level and illiteracy significantly were related to dependency with *p* value of .0000 and .045 respectively (Horbunlerkit, Kamolratanakul, & Suteparuk, 1995; Jithapunkul et al., 1995; Jitapunkul et al., 1994).

Work and income. Because of the functional decline, most elderly people decided to stop working which made them to rely on children to fulfill economical need. Even though elderly people were subsidized income from their children, pensions, or security funds, their everyday expenses cannot be fully supported. Additional expenses include medical fees. Those factors increase economic dependency. A study about dependent

elder in Thai people elderly in the Klong Toei community found that financial problems were significantly related to dependency with a *p* value of .0076 (Jithapunkul et al., 1994).

Health perception. It is the way that the elderly person perceives about his own heath and the satisfaction of his overall conditions of living. A poor perception of health leads to increased dependency especially in elderly people with chronic illnesses such as cerebrovascular disease (Jithapunkul, 1994), and dementia which are conditions that renders the sufferer to need 24-hour assistance in almost all activities whether daily activities, social activities as well as psychological support including emotion, cognition and memory (Lertrat, 2008). A study about dependent elder in Thai elderly people in the Klong Toei community and assisted care facilities found that health perception was significantly related to dependency with *p* value of .0000 and .0131 respectively (Jithapunkul et al., 1995; Jitapunkul et al., 1994) and that low satisfaction in life also was related significantly to dependency with a *p* value of .0025 (Jithapunkul et al., 1994).

Family relationship. It is the communication, expression of feelings, and caring toward one another among family members. A study conducted in an assisted care facility demonstrated that a low level of satisfaction about the family relationship was significantly related to dependency with a *p* value of .0182 (Jithapunkul et al., 1994).

Environmental factors. Elderly people who live in inappropriate living environments tend to have dependency due to their underlying physical limitations such as poor eyesight, impaired movement and balance causing risk for accidents. Dependency from environmental factors necessitates modifications of some of the equipment used in daily life. Chairs should have armrests and have an appropriate height, walkways should be flat and free of obstacles, handrails should be installed in bathrooms and toilets should be ergonomically suited (Jithapunkul, 1994). A study done in an assisted care facility about dependent elder found that the need for use of walking assistance such as walking canes or wheelchairs was significantly related to dependency with a *p* value of .0001 (Jitapunkul et al., 1995).

It can be seen that there are numerous factors that affect elderly dependency including personal factors, health status, an ability to perform activities of daily living, family relationship and living environment. These factors affect both the elderly and the caregiver and may cause problems in caregiving which must be addressed appropriately.

Effects of Elderly Dependency

Dependency is a state that prevents the elderly person from independently performing basic task of daily living and creating the need of assistance from others. This directly affects the elderly such as lose self-confidence, become hopeless, feel deprived of self-value and become dysfunctional (Ebersole & Hess, 1998). It also affects the caregiver and family. Lertrat (2008) studied the positive and negative effects of dependency and concluded that dependency in the elderly has many effects as follows.

The effect on the elderly person. This stems from the fact that the elderly person cannot independently perform activities of daily living and needs help from family members. If the family members can meet the needs of the elderly, it would result in happiness, comfort and good relationships in the family. However, dependency can have negative physical, psychological and social impact. Physical impairment is an important component of dependency. If this issue is not addressed and cared for, it would lead to further physical impairment and even disability or handicap and cause the elderly to suffer a poorer quality of life. The psychological aspect is no less profound; changing from an independent person into one that needs assistance in doing even basic tasks causes stress, anxiety, loneliness, loss of will power and self respect and may lead to depression. The elderly people also lose their former status of family leader and the main breadwinner. The reduced role and income may cause them to receive less respect from other family members which will further affect their psychological well-being. In worst cases, the dependent elders may even suffer from abuse from other family members (Lertrat, 2008).

Effect on the caregiver. Elderly dependency positively and negatively influences on caregivers. The positive effects include the feeling of happiness and satisfaction that

the caregiver is able to care for another person, especially if the elderly is their mother or father. The negative physical, psychological, and socioeconomic effects include fatigue of having to care for the elderly and move them around the house. Some caregivers do not get enough rest which can negatively affect their health. The caregiver may also experience stress and anxiety. Some caregivers may have depression. The social and economical effects are also important. If the caregivers must put all their time and effort into caring for the elderly, they may have to frequently leave work or quit all together, causing loss of income and reduced social interaction. Expenses also increase such as transportation costs, medication costs or other costs related to healthcare (Lertrat, 2008).

Effects on the family. The family has an important role in caring for the elderly. Positive effects of elderly dependency if the family adequately cares for the elderly especially if they are their mother or father which is a gesture of gratitude towards them and would strengthen family bonds. The negative effect is that the family must bear the burden of sandwich roles, and having to care for both the elderly and young members of the family. Conflict may ensue if there is a problem with finding a member of the family to take the role of a primary caregiver who must constantly care for the dependent (Pattaravanich & Pumsaithong, 2009). A certain family member may not be willing to take the burden alone. There will most likely be additional expenses in caring for the elderly. All these problems may lead to the elderly person being neglected or even physically abused.

Assessment of the Elderly Dependency

Dependency may be assessed by evaluating the ability to perform activities of daily living. There are many assessment tools commonly used to measure elderly dependency as follows.

The Katz ADL Index. This tool was developed by Sydney Katz and published with co-author Ford, Jacklene, Moskowitz, and Jaffe since 1963 (Wallace & Shelkey, 2007). The index evaluates function and changes in elderly people with chronic diseases. It was later adapted to assess the ability of performing activities of daily living of the elderly people in their household or in nursing homes (Wallace & Shelkey, 2007).

The index evaluates six basic daily tasks such as bathing, dressing, toileting, transferring, continence and feeding. Evaluation can be performed by self-assessment or observation by an observer. Scores for each item can be given as either 1, if the activity can be independently performed, or 0, if the task could not be done without assistance. If the elderly can perform all the activities assessed, then they would have the score of 6. According to literature review, there has not been a study that evaluates the validity of the Katz ADL Index, but because it is simple to use, it is widely adopted (Katz, Downs, Cash & Grotz, 1970).

This instrument evaluates the functionality of the elderly and can be used in the household, community or in nursing homes. The result from the scale can be used to plan care for each individual. Graf (2007) evaluated this score in a study and concluded that it is appropriate and accurate with a confidence value of 0.85. When used to assess the 4 aspects of function (physical, psychological, behavior and social), it was found that all aspects correlated with one another with p values of 0.1 or 0.5.

The Lawton Instrument Activities of Daily Living (IADL) Scale. This instrument was developed by Lawton and Brody in 1969. It is used to evaluate the performance of 8 complex activities of daily living which require learning and cognitive competency. The index assesses 8 activities: using the telephone, shopping, food preparing, housekeeping, doing the laundry, mode transportation, responsibility for own medication and ability to handle finances.

Scores are given for each item as 0 or 1. A score of 1 means the person can perform the task, and a score of 0 means the person cannot perform the task at all. The more points individual scores, the more capable they are and the less the score, the more dependent. This instrument is reliable and easy to use, taking only 10-15 minutes to complete. However, there are still limitations in the evaluation between men and women. For example, housework is mostly done by women, so most men would score 0 in this category since they do not regularly do it. This instrument is especially useful to follow-up the progression of performance within an individual.

The Barthel Index. This index was developed by Marhoney and Barthel in 1965. The purpose was to use it for assessment of the elderly before and after receiving

treatment and rehabilitation for conditions such as cerebrovascular disease which needs continuing medical care. The index uses observation to assess 10 activities including feeding, transfer, grooming, personal toileting, bathing, mobility from bed to chair, going upstairs, walking, dressing and continence by evaluation tasks around 10 minutes. The index is reliable to have good prediction with a Pearson's correlation coefficient of 0.98. Scores are given from 0-100. A score of 0 means complete dependency and a score of 100 means no dependency or independence.

80-100 Independence
60-79 Needs minimal help with ADL
40-59 Partially dependence
20-39 Very dependence
< 20 Totally dependence

The Barthel index still has some limitations in that it may not perform well in a community-based setting or in evaluation of basic activities such as preparing meals or shopping. It also does not assess psychological and social aspects, thus needs to be adapted to suit individuals in different contexts.

Instruments for practical evaluation. These instruments include the modified Barthel ADL Index (BAI) and Chula ADL Index. The Chula ADL index was developed by Suttichai Jithapunkul in 1994 to be better suited for use in Thai society.

Barthel ADL Index (BAI). This index evaluates the ability to perform 10 daily tasks over a period of 1-2 days. These activities include feeding, grooming, transferring, toileting, mobility, dressing, going up and down one flight of stairs, bathing and bowel bladder continence over the a 1-week period.

Chula ADL Index. This index evaluates the ability to perform 5 activities over a 1-2 week period. These activities include walking outdoors, cooking, heavy housework, money exchange and using public transport. Scores are given for each activity as 0-3. Interpretations are as follows.

0-4 Total dependency

5-8 Severe dependency

9-11 Moderately severe dependency

>12 Mildly severe dependency

The Dependency Screening Tool for Village Health Volunteers. This scale was developed by Linchong, Vatisonntorn, and Panuthai in 2010 for village health volunteers to use. It is efficient and accurate in grouping elderly people to plan for appropriate care. The tool consists of 6 activities including. 1) feeding, 2) dressing, 3) bathing, brushing, combing, shaving 4) toileting, 5) transfer indoors, mobility from bed, walking around the house, mobility indoors with a wheelchair or walking with assistive device and 6) outdoor activities such as community activities, going to the temple, market, primary care unit, hospital, clinic or other public places. All items are graded as completely independent, needing some help or totally dependent. This screening tool had a good internal consistency of 0.92, 93.5% sensitivity, 100% specificity and 99.5% accuracy. It takes only 3-5 minutes to complete. Subjects can be grouped into three categories.

Group 1: Independence (can do all activities by themselves).

Group 2: Mildly dependence (can perform tasks number 1-5 but not task 6).

Group 3: Severely dependence (are dependent in some or all of task 1-5 and task 6).

Interpersonal Dependency Scale. This scale was designed to help health volunteers or healthcare professionals to assess the elderly in a home-based situation in order to plan for appropriate care. It was developed by Gardner and Helmes in 2007 by modifying the original tool designed by Bornstein in 1993. Bornstein described 4 components of personal styles that influence dependency. These components include motivational, cognitive, affective and behavioral components. These 4 aspects are divided into 20 questions, each question can be answered with a 7 point score from 1-7. A score of 1 means “no, the question does not describe the current situation”, a score of 7 means “yes, the question very much describes the current situation”. The greater score means more dependency. This test has been proven to be reliable with alpha coefficient of 0.92 to 0.94. It is still in development and is likely to be of great value for healthcare professionals and volunteers to evaluate the elderly directly in their homes.

The Family Caregiving of Dependent Elders

Definition of Family Caregiving

Caregiving, by definition means attending to, protection and supervision (Thai Royal Dictionary, 2003). It is the expression of good and empathy between one another. Elderly people with dependency often need help from caregivers who are mostly family members. A family is the smallest structure of the society, by definition means two or more people who share goals and values, have long-term commitments to one another, and reside usually in the same dwelling place. They can either be related by blood or by law or not related at all but are emotionally attached to one another. They live together and are dependent on each other socially and economically. The family can always help elderly members with dependency or only when help is needed.

Caregivers that are a member of the same family are often called a "family caregiver". They are people who help out or take care of the elderly that have illnesses at home. Sirapo-ngam (1996) defined the term family caregiver or informal caregiver as a person who plays an crucial role in the care of sick at home, they respond to the need of the elderly brought on by impairments in physical, mental and emotional function. The family caregiver can act as a primary caregiver which cares for the elderly directly and continually or he can be secondary caregiver who occasionally help out when needed (Sirapo-ngam, 2003). Family caregivers help and care for other people who are in need of care such as the elderly, newborn babies or small children. The care that is given can be direct or indirect and is given continuously.

Furthermore, the definition of caregivers can be extended to include people who are relatives or are not relatives that care for the elderly without receiving or do not ask for monetary compensation for their care for the elderly with illnesses or functional impairment. Family members, spouses, offspring, nephews and nieces, other relatives or neighbors all can play a role in supporting the elderly based on good relationships in caring for one another (Messecar, 2008; Morris & Edwards, 2006). However, the definition of caregivers can also include persons who provide care for the elderly with dependency. Sasat (2008) categorized caregivers into two groups: formal caregivers and informal caregivers. Formal caregivers are healthcare professionals from healthcare

facilities or groups from organizations that have been trained in caregiving and receive compensation for their care. These caregivers are doctors, nurses, other healthcare professionals and caregivers from organizations that offer home care. Informal caregivers are people who help in activities of daily living to the elderly which may need 24 hour assistance. They have not been trained professionally and do not receive compensation for their care but do so out of love, gratitude, sense of duty or value of relationship. These caregivers include spouses, offspring, relatives, friends and neighbors. Most of the time, informal caregivers are spouses of the elderly and are also of old age (Sasat & Pakdeeprom, 2008).

Therefore, we can appreciate that a family caregiver can either be related by blood to the person in care for or may not be related at all. Family caregivers can be members of the family such as a spouse, offspring, relative, neighbor or anyone with a good relationship with the elderly who is cared for and can also include healthcare professionals from healthcare facilities such as hospitals that take part in caring for the elderly with dependency especially in times of illness. These caregivers include for doctors, nurses, other healthcare professionals and members and volunteers of organizations that offer care for the elderly which may or may not ask for monetary compensation. Informal caregivers mostly are not trained in healthcare of the elderly as compared with formal caregivers (Feinberg, 2002; Sorensen, Pinquart, & Duberstein, 2002).

Type of Family Caregivers

According to literature review, Sasat (2008) categorized informal caregivers according to their relationship with the elderly and the amount of care they offer as follow.

Categorization by relationship with the elderly. Family caregivers can be relatives or a member of the family which are the most common informal caregivers in the Thai society. Among these informal caregivers, there may be ones that are the primary caregivers and others that are secondary caregivers. For example, there might be a certain member of the family who acts as the primary caregiver who is responsible for assisting in activities of daily living, another may aid in financial terms while others

may help when the patient needs a visit to the hospital. Other informal caregivers may include distant relatives, friends, and neighbors which help out in daily activities without asking for compensation but do so because of love, affection or gratitude towards the elderly that helped them before.

Categorization by the amount of care given. This approach groups caregivers into primary caregivers and secondary caregivers. The primary caregiver is the person that the elderly identifies as the person who is responsible for the care during the course of illness or the person who spends the most time of a day helping the dependent elderly. They help in activities of daily living such as bathing, body hygiene, feeding, medication, wound care, and toileting. The primary caregiver is the one that is most stressful, and the level of stress depends on the severity of the illness of the elderly. The secondary caregiver encompasses other people take part in caregiving which may not be directly towards the patient and does so an occasional basis with the amount of time less than the primary caregiver.

Type of Family Caregiving

Family caregiving for the elderly can be categorized into 4 categories (Yodpetch, 2009) as follows:

Physical care. It includes help with activities of daily living, feeding, appropriate dwelling environment, care during illness, travelling and transportation, and help with physical activities.

Mental and emotional care. It includes providing care for the elderly with love, understanding, respecting, talking everything to relieve loneliness, and not showing that the elderly are a burden or a value is not required in their family. Care must be taken to keep the values of respecting the elderly.

Economical care. It includes taking care of costs around the household, personal allowance for the elderly, encouraging appropriate occupation and managing overall monetary affairs.

Social care. It includes helping and encouraging the elderly to take part in family activities, to be aware of what is happening in the news and the society. The main social activities that the elderly often participate in are those concerning religion.

In the situation that the elderly begins to enter a dependency state, the most common primary caregiver is a direct relative, mostly a middle-aged daughter. Dependency begins when the elderly starts to have physical, mental or emotional disabilities or deterioration of body function preventing normal activities. Then the family member will begin to gradually taking care of the dependent person. The daughter is often the main caregiver due to cultural values that it is the daughter's responsibility for the care of their parents while sons are responsible for financial aid. The daughter is often the last member of the family that stays with her parents and often takes on a "sandwich role" acting as a housewife, mother, working woman, and caregiver of her elderly parents. She is responsible for helping the elderly person with daily activities, feeding, clothing, cleaning, care during illness, travel and transportation, as well as providing warmth, comfort and security.

Family Caregiving Activities

Caregiving for the dependent elder is a long term process which involves social and health aspects. Healthcare is mostly given in exchange for monetary compensation by healthcare professionals from hospitals or organizations with trained members. Caregiving about the social aspects is the responsibility of the family member. The primary or direct caregiver is the family member that spends the most time caring for the dependent elderly whereas the secondary or indirect caregiver may be a family member or a person outside of the family which provides indirect or occasional help with significantly less time spent compared with the primary caregiver. (Morris & Edwards, 2006; Sasat, 2008; Suwanno,1997).

Morris and Edwards (2006) described the social aspect of care by family caregivers as caregiving for the elderly involving physical, mental and affective assistance. Physical assistance involves helping in the functional aspects of the elderly includes basic activities of daily living and instrumental activities of daily living. Basic activities of daily living include bathing, feeding dressing, toileting, hygiene,

medication, movement and transportation. (Lertrat, 2008; Morris & Edwards, 2006; Sasat, 2008)

Instrumental activities of daily living include more complex tasks such as preparation of meals, house cleaning, shopping, use the telephone and spending money. Studies have found that caring for the dependent elder who has a chronic illness included basic activities of daily living most often include cleaning, feeding, medicating, toileting, turning the patient to prevent pressure sores, emotional support, help in movement. The instrumental activities of daily living include making sure that medication is taken properly, prevention of complications of the disease. Emotional and affective supports are also extremely influential in caring for the dependent elderly (Messecar, 2008; Morris & Edwards, 2006). Morris and Edwards (2006) described affective assistance as caring for the elderly about their emotions, feelings and behavior. Encourage the elderly to feel self worth and satisfied with their life, be dignified and have the will to get better. Family caregiving for the elderly with dependency can also be categorized by the nature of activities into 4 groups (Messecar, 2008; Schumacher et al., 2006)

Day-to-day activities. This is mainly the responsibility of the primary caregiver which helps the elderly with personal activities of daily living such as feeding, bathing, walking and toileting as well as more complex task such as driving, house work, financial management.

Illness-related care. This involves care of acute or chronic illnesses to help patient cope with their illnesses and receive proper healthcare.

Care management. This involves helping the elderly to have access to healthcare and social services and information.

Invisible aspects of care. This helps the elderly patient to live safe and happy. This involves helping the elderly with what they need, protection from harm and disease complications in both physical and mental aspects which the family caregiver in this case may not need to have specialized knowledge of caregiving.

It is necessary to recognize that caregiving for the dependent elder by family caregivers concern about physical, mental, emotional and social aspects of care. Both primary and secondary caregivers who are family members play a significant role of caregiving in terms of social aspects as well as caregiving for daily activities both basic and complex. Healthcare professionals take part when there is illness to ensure that the patient receives appropriate medical care including the develop a suitable of environment for the elderly in the community (Lieorungruang, Kittikul, Chumduang, & Laoratananurak, 2009).

Factors Affecting Family Caregiving

There are many factors that affect caregiving of the dependent elder including the caregiver, the family, and the healthcare system. In terms of the caregiver, the factors that related with caregiving are as follows:

Gender. Women are more commonly the caregiver compared with men because they have the basic maternal instinct and are better well adapted to caregiving for other people than men. For these reasons, women, often take on a "sandwich role caring for the elderly as well as their family roles" (Schumacher, Beck, & Marren, 2006; Lertrat, 2008).

Ethnicity. A study from the United States found that African-American people tend to less commonly care for the terminally ill when compared to Caucasians (Schumacher et al., 2006). Asians are bound by cultural and religious beliefs to care for the sick and the elderly and thus are mostly good caregivers (Lertrat, 2008).

Educational level. People with lower educational level tend to have problems with knowledge and understanding of the needed to care for the elderly. They may not understand the problems and needs of the dependent elder and may have anxiety in caregiving and worries about their lack of knowledge in delivering proper care (Given et al., 2008). People with higher education on the other hand may have more ability to access to health information and apply those information to improve caregiving for dependent elders (Jitramontree et al., 2009).

The relationship between the elderly and the caregiver. Caregivers may be spouses, children, grandchildren, daughter-in-laws, friends or relatives. Even the close relationship between the elderly and the caregiver, it is better for caregiving the dependent elder (Lertrat, 2008).

The abilities of caregiver. Knowledge and skills of the caregiver in accessing resources needed for the care of the elderly is necessary for caregiving. If the caregiver has the knowledge and skills of caring for the elderly, it would optimize the quality of care for dependent elders (Given et al., 2008; Lertrat, 2008; Jitramontree et al., 2009).

The effect of sandwich roles. Family caregivers who have to take care of the elderly along with their children and may also have to work outside of the house may be conflicting and cause stress on the caregiver resulting in problems with the quality of care (Lertrat, 2008). If the family caregiver themselves also have their own health issues, the pressure can adversely affect their well-being.

The distance between the elderly and the family caregiver. The farther the distance between the elderly and the caregiver diminishes the ability to properly care for the elderly. This is especially true if the family caregiver needs to move faraway to work. The closer the family caregiver is the better the care is likely to be (Lertrat, 2008).

Effects of Caregiving

The dependent elder needs physical, mental, emotional and socioeconomic care from their families and caregivers. This situation affects the family caregiver in both positive and negative ways.

Positive effects. The family caregivers are satisfied with their ability to care for another person; they feel proud and happy that they can lend a helping hand to the people who are in need of care.

Satisfaction and happiness. The family caregivers are happy and content with their ability to give up some of their conveniences for the sake of others and being able to repay their parents for taking care of them when they were younger. It is a crucial part of Buddhism and Thai culture that children are gratuitous to their parents and care

for them when they are old (Wejvittan, 2008). This act of gratefulness is highly valued in Thai society (Hunt, 2003; Lertrat, 2008; Limpanichkul & Magilvy, 2004; Morris & Edwards, 2006; Schumacher et al., 2006) and is the foundation of love and affection in the family (Limpanichkul & Magilvy, 2004). It also helps elevate the spirits of the caregivers, knowing that they are valuable and beneficial to the elderly.

Feeling of self-worth. The feeling of family caregivers is obtained by caring for the elderly, knowing and confident that they can deliver appropriate care for the well-being of the elderly.

Experience of caregiving. Experience is derived from caring for the elderly that the family caregiver develops a sense of responsibility to the elderly which in turns motivate the family caregiver to gain skills and experience in caregiving (Hunt, 2003).

Negative effects. Caring for the elderly can adversely affect the family caregiver in respect of their physical, mental and socioeconomic well-being.

Physical effects. The burden of caring for the elderly can take a toll on the family caregiver. They can become tired and fatigued. They have less time to look after their own health and may not get enough rest which can cause health problems in the long term. (Hunt, 2003; Lertrat, 2008; Limpanichkul & Magilvy, 2004; Morris & Edwards, 2006; Sasat, 2008; Schumacher et al., 2006).

Mental and emotional effects. The family caregivers who suffer from physical illnesses are at risk of developing psychological and emotional problems as well. Sadness, boredom, discouragement, guilt, anger, shame, loneliness, stress and anxiety are all negative feelings that the caregiver may experience. For example, caring for an elderly with dementia who does not recognize who the caregiver is and displays inappropriate social behavior can cause shame and stress to the caregiver (Lertrat, 2008). These situations can cause significant stress and challenge to the caregiver (Hunt, 2003).

Regarding the social aspect, the family caregiver may experience pressure from the family or the society. There may be issues of sharing the burden of care among

different family members. The career of the caregiver may also be affected since they have to spend more time with the elderly (Hunt, 2003; Sasat, 2008).

Economic effect. The family caregiver may not be able to continue with their career and may even have to quit all together since many elderly people are totally dependent and require constant care. This causes loss of income from healthcare costs of the elderly. In many cases, this leads to increased debt (Lertrat, 2008; Sasat, 2008).

It is concluded that caregiving for the dependent elders can have both positive and negative effects on the family caregiver. The negative effects may warrant additional care from others to lessen the burden of the family caregiver.

Capacity Building

Meaning of Capacity Building

Capacity means latent condition, power, or property hidden in things. It can be developed or revealed (Royal Institute, 2003). The meaning of the building is to make or increase (Kongchan, 2007). Therefore, capacity building can refer to both process and result in the development of mental and physical capability within a person as well as a social system, organization, and organizational structure. Talbot, Takeda, Riutort, and Bhattacharyya (2009) defined the term capacity building as the process to create and improve activities that strengthens, increase knowledge, ability, skill, and behavior of a person. It also improves organizational structure to learn and function according to the goal effectively and sustainably. Corresponding to Eade (2005), he defined the term capacity building as the development of persons both male and female. It has the model that helps, protects, adjusts lifestyle, and social structure by strengthening relevant people in politics, social, economy, so that they can achieve the goal. An decisive result is better livelihood. In addition, capacity building is also the development of skill, ability of individual, group, organization, administrative district or the country. It will lead to capacity improvement and permanency (Australian Government, 2006). It is also the process that support group of people to be able to perform their duties perfectly in order to achieve the goal or cause social change (Condell & Begley, 2007).

It can be seen that capacity building can be both the process and result. There are many forms of the process from the creation, increase, or capacity development, improvement with various methods through learning activities, skill training, and practice in the level of individual, society, system and organizational structure. It causes beneficial results from strengthening, behavioral changes, the increase of knowledge and skill of the person, family, society and the organization. The operation is completed according to the goal leading to social change and permanency of activity model in such operation.

The Characteristic of Capacity Building

The goal of capacity building is the development of capability in running activities successfully according to the goal. Morgan (2006) explained characteristics of capacity or ability of the individual, organization and system in 5 essential characteristics.

Empowerment and identity. These are the support that develops the organization. The system remains and able to develop under control according to authority and role of such person.

Collective ability. It is gathering compositions that give result or capacity by helping an individual, group or organization prioritize or create the plan for more understandable and effective operation.

Systems phenomenon. This is interaction by exchanging attitude, supportive profitable source, methods, necessary skills both objective and subjective, which cause complex operation and maximum results.

Potential state. This is latent characteristic, which is difficult to measure or evaluate such as subjective capacity. Performance evaluation is required by accessing for development, management, evaluation and supervision in order to remain exist.

Creation of public value. It is the ability that profitable for the individual or people in the country that require optimal effective development.

Family Capacity Building Model

Capacity building is the development of ability to be efficient. There are many models of buildings and developments. Dunst and Trivette (2009) studied about capacity building in family system model. This is the theory that can be applied to support the family system. It focuses on activities that help take care children and disabled persons with a new paradigm or capacity-building paradigm aiming to support and help from resource, experience, or opportunity. The aim of capacity building is to strengthen the children and parents to take care of one another in the family. To compare with traditional paradigm, it consists of 5 models as follows.

Promotion model. This model emphasizes on capacity building, especially positive ability or creation. It is different from the traditional model, which emphasizes on treatment of the disease and pathology.

Empowerment model. It offers the opportunity for individuals to express their abilities or develop skills and experience in each context, situation or develop new performances personally to be more capable. This is different from the traditional model, which depends on experts in assistance or making a decision for their problems.

Strength-based model. In this model, ones know their own capability and able to use those abilities effectively. This is different from the traditional model. Individuals are aware of their faults and solve those faults without looking on other capabilities.

Resources-based model. This model seeks and utilizes from diverse supportive sources, such as using resources from working experiences and new opportunities. This is different from the traditional model, which emphasizes on support from expert's practice method.

Family-centered model. This model aims at the response to family's needs. The family proposes the needs and makes decisions in using resources appropriately. This is different from the traditional model, which emphasizes on expert's decision while the family does not participate.

It can be seen that capacity building is aimed to create, improve, develop, and increase capability or power among individuals, families, socials, organizations, and organizational structure that is as optimally beneficial as possible. Therefore, in family capacity building, capacity of family caregivers must be improved so that they will be able to take care of family caregivers, who are normal or sick. The empowerment model offers opportunity for individuals to express their abilities or develop skills and experience in each context, situation or develop new performances personally to be more capable and assistance or making decision for their problem for supporters. Particularly in the elders, who are sick or dependency, they need a lot of care in the area of physical, mental, social, economic, and other related areas. Thus, family capacity building by using empowerment model properly and is a key for helping the dependent elders.

The Concept of Empowerment

According to the dictionary of Merriam-Webster (2005), empowerment means giving authority officially or as determined by the law. This includes provision, offering opportunity, or supporting selfness. Empowerment concept roots from Latin language which means we can do it. It can be both development process and the result. It covers the areas of social, politics, and ethics. This concept is applied to personnel development, work quality, and living quality improvement as well as community development (Theeranuch, Surit, & Kaewsai, 2007). A Brazillian educator named Paulo Freire applied this concept to teaching science that emphasizes on participation for the change of life and social. It improves knowledge, capability, and self-control in social change. This concept has spread throughout the world as education measurement and guideline in health support and education (Pensirinapa, 2003). Gibson (1991) defined empowerment as the process that helps individual to improve and realize the actual cause of the problem. Then, he will be ready to solve the problem. Corresponding to the study of Hawks (1992), he defined empowerment as the process within an individual aiming to improve the capability to pursue the goal effectively by providing tools, resources, and having appropriate environment. Empowerment is also the process of an individual that control and make a decision in his life through supportive process, realizing the value of the others, participation in making decision, having mutual

profitable source, and mutual responsibility (Frain, Tschopp, & Bishop, 2009; Rodwell, 1996).

In addition, empowerment includes participation or relationship with family, friends, or healthcare providers. It is also a learning process that causes changes in individual, family, and community levels. It promotes changes through learning in many forms, namely empowerment-centered education, learner-experience-based education, and participatory education. Changes derived from empowerment include in knowledge, attitude and skill as well as continuous learning and flexible schooling (Pensirisapa, 2003). It can be seen that empowerment can be both process and result from individual empowerment. It includes interaction between people in the social, who make decisions in solving problems through participation and appropriate utilization of resources in order to increase capability to achieve the goal.

The characteristics of empowerment. Rodwell (1996) explained the compositions of empowerment from the literature review. It can be classified into 4 compositions, including: 1) helping process which is the support from relevant persons by empowering the receiver, 2) partnership which values self and others. It demonstrates the value for the mutual recognition between the giver and receiver, 3) mutual decision-making by using resources, opportunities and authority in participation in making a decision by providing and utilizing appropriate beneficial sources according to opportunity and authority, and 4) freedom to make choices and accept responsibility.

According to Gibson (1991), the important characteristics of healthcare empowerment, especially in the nursing area include clients, healthcare providers, and interaction between the clients and healthcare providers as follows: 1) the clients are empowered and motivated so that they are able to learn and make a decision on their own to have better health and quality of life, 2) healthcare providers offer empowerment through nurses. They help, support, consult, facilitate, and recommend relevant beneficial sources as well as protecting the clients' rights, 3) interaction between the clients and nursing providers is building good relationship, relying on one another, setting the goal together, participating in making decision, negotiating and proceeding together. These 3 aspects of empowerment aim to solve the problems, such as health

problems. Healthcare providers and the clients collectively participate in setting the goal, helping one another, exchanging experience and opinions until they are able to make a decision on their own, leading to good health and better quality of life.

The process of empowerment. The process of empowerment emphasizes on learning at individual and group levels to promote the changes of the society and environment. This process starts with collectively analyze and consider on experience or practice for the cause and relevant factors of the problem, leading to planning and practicing by doing activities and solving the problem together (Pensirinapha, 2003). The strategies applied for empowerment include many methods, such as conversation, exchanging knowledge, and analysis on the actual problem. Kieffer (1984) explained empowerment process according to the study of Gibson (1991). It is separated into 4 stages as follows.

Stage 1 (era of entry). The people in this stage is unconfident and unaware.

Stage 2 (era of advancement). The people in this stage need support and advice from others to solve the problems.

Stage 3 (era of incorporation). This stage involves people to adjust lifestyle by integration knowledge and skills.

Stage 4 (era of commitment). This stage involves integration of knowledge.

Kieffer (1984) proposed empowerment process to help the individual to develop and realize about the cause of the problem and prepare to solve such problem by adjusting their thought or integrate things necessary to solve such problems. About empowerment process in the area of healthcare, Theeranuch et al. (2007) explained empowerment strategy, especially in patients admitted to the hospital as follows, 1) giving knowledge and beneficial information through communication to raise awareness and correct understanding, 2) consultation to solve a problem, 3) support and facilitation necessary resources, 4) coordination, participation in making a decision, determination of the goal and alternative appropriate to oneself, making decision, and support making decision, 5) give positive feedback to motivate, 6) acceptance of

individual's potential and capability and accept the problem and status of one own, 7) establish a self-care group, and 8) providing health care and rights protection. In addition, empowerment process allows the group and community to be able to control and cooperation in the change of life, environment, and residence corresponding to the reality in the society. Gibson (1995) explained empowerment process in 4 steps as follows:

Discovering reality. This is acknowledgement, understanding and acceptance with the actual situation for individual's response in the area of emotion, perception, and behavior. Emotional responses, such as anxiety, confusion, scare, anger will help one to solve the cause of the problem according to the actual situation. About perception, it is feeling of confidence or loss of capability. Therefore, seeking for information or similar experience helps understand the situation and the problem better. About behavioral aspect, it is the realization of the problem and action for solving the problem. Positive information and feedback will be needed in order to enable people to solve the problem.

Critical reflection. This is the review on the situation carefully, understanding of the various events, and considering new ways to view until they have confident in order to make decision on solving the problem appropriately

Taking charge. This is selecting the practice that the individual think is appropriate and the best solution. This requires participation from healthcare personnel to exchange opinions and support decision making and create more confidence.

Holding on. This is the process of effective problem-solving practice and maintaining the resources effectively. Health professional teams can collaborate in solving problems in order to achieve sustainable behavior. Then it will be able to continue and apply for future problem.

It can be seen that empowerment process comes from individual, group and healthcare personnel, who participate in the support, advice, consultation, and discussion about experience. It helps to increase confidence, knowledge, and ability in making decision on one's own and solving the problem effectively.

Family Empowerment Model

From literature reviews, it was found that individual empowerment model emphasizes on the patient, family, and healthcare personnel. This is participatory decision concept making one to be more confident and able to apply in various forms, including in the house, family and healthcare center. Gibson (1995) proposed empowerment model to explain the process of empowerment of mothers who provide care for chronic ill children as shown in figure 1.

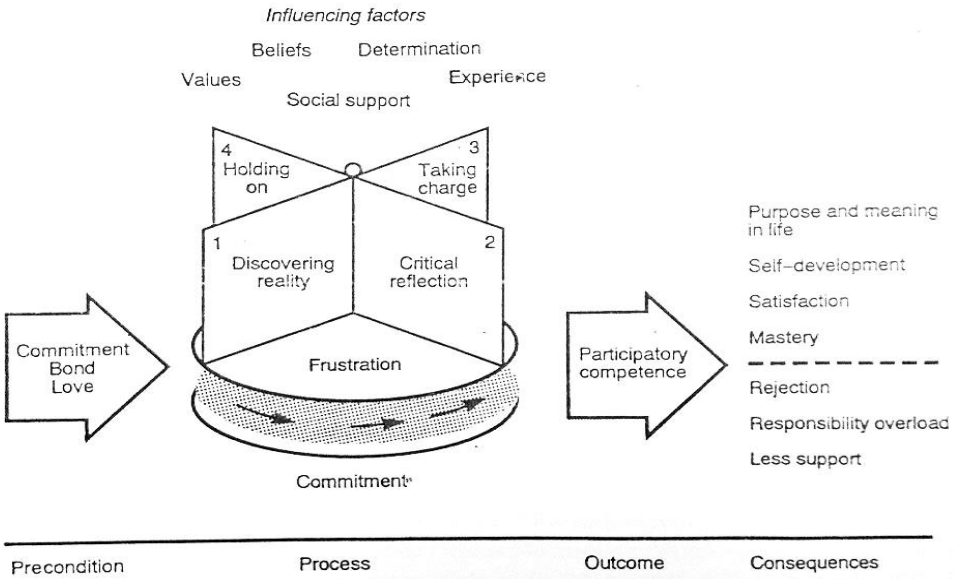

Figure 1. Empowerment model of Gibson

Note. From "The process of empowerment in mothers of chronically ill children," by C. H. Gibson, 1995, *Journal of Advanced Nursing*, *21*(6).

Gibson (1995) explained that empowerment model started from situations, such as frustration, conflict, obstacle, and expectation. The lack of self-unbalance causes intention, leading to commitment, bond, and love. These factors motivate an individual to empower himself. Experience and social support cause problem-solving process by discovering reality, critical reflection, taking charge, and holding on. This influences moral support. One can find solutions for problems and obstacles from feeling of participation or power, acknowledge the success in his situation, feel satisfy in oneself,

develop oneself, has his own goal and meaning of life. Negative results include unacceptable, too much burden, and insufficient support.

In addition to individual empowerment model, family empowerment process proposed by Hulme (1999) emphasized on activity or program for taking care of family members with chronic disease. Hulme (1999) mentioned about family capacity building by building trust from creating rapport and establish a direct relationship with the family, help to prioritize of needs and problems, helping the family to determine, provide accurate and complete information, and support goal setting, guide the family caregivers in assessing its own support system and resources, strengthen ability to use social support and resource for solving problems, peer support group, reinforcing the family's ability to identify choices in health care to expand its sort of alternate possibilities, and discuss with the family which works in the system and building skills in negotiating with health professionals by using role play (and acknowledge with family good care as shown in figure 2).

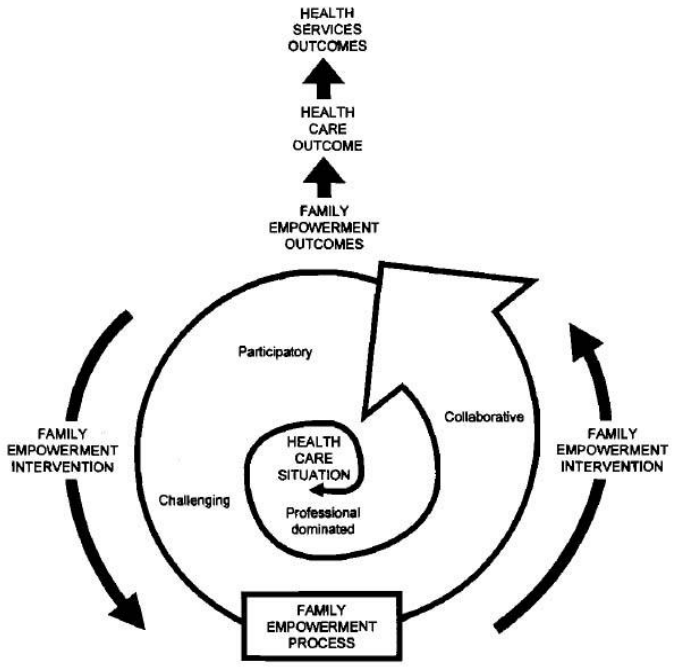

Figure 2. Family empowerment model of Hulme

Note. From "Family empowerment: A nursing intervention with suggested outcomes for families of children with a chronic health condition," by P. A. Hulme, 1999, *Journal of Family Nursing, 5*(1). doi:10.1177/107484079900500103

According to family capacity building concept of Hulme (1999), empowerment strategies for family members were as follows:

1. Creating trustworthiness by building relationship, discussing to exchange experience, sympathy and paying attention between healthcare providers and family members.

2. Create direct relationship with children with chronic disease by asking about the need for care by considering on the need of sick children and the family before the need of healthcare provider.

3. Help the family in making decision on care practices, such as hiring caretaker or teach according to the need of chronic patient children.

4. Help the family by providing correct information about healthcare, controlling the changes and preventing dangers that might occur.

5. Help the family by setting the goal personally or allow the family to set the goal in taking care.

6. Help the family by evaluating and recommending supportive and beneficial sources to the family as needed.

7. Help the family by assessing the strength of the family, confrontation and collectively solving problem.

8. Help the family by establishing supportive group or family group that take care similar chronic patient children.

9. Help the family by increasing capability or offering different alternatives or wide perspective as possibilities in helping.

10. Discuss with family members about the healthcare system and achievement of system use.

11. Create negotiation skill to bargain with healthcare provider as a partnership and exchange knowledge.

12. Support as appreciate and accept the families that take good care.

Hulme (1999) proposed 4 stages of family empowerment as described below:

Stage 1: Professional-dominated phase. Family members, who are taking care of the patients, must rely on healthcare personnel in order to satisfy the need of the patient in self-care, preventing life-intimidating danger and recurrent sickness.

Stage 2: Participatory phase. Family members, who are taking care of chronic patients, must realize and give precedence in exchanging experience with healthcare personnel for adjusting the role and responsibility to participate with decision-making with the healthcare team.

Stage 3: Challenging phase, where the balance of power between family members and healthcare personal occurs. Family members have the authority to take care the patient as much as a healthcare provider. There is opinion exchange as a part of the healthcare team. In this stage, caretaker might not accept the authority. There might be conflict, frustration, uncertainly, and the loss of trust in healthcare personnel.

Stage 4: Collaborative phase, this is when family members cooperate and participate in care. It is the last phase of family capacity building process. Family members are confident in themselves. They are able to take care of the patients or chronic patients well. They depend on healthcare personnel less. Finally, family members are able to manage their roles and responsibilities in the family.

Family capacity building in taking care of chronic patients requires healthcare personnel, trusted by family members, to participate in care taking. Family members are allowed to participate in making a decision on care. After that, it transitions to balance of power until family members have knowledge, capability, and confidence in taking care by themselves within the family.

The Research Related to Capacity Building Program

From literature reviews, some researchers applied capacity building concept to solve a health problem among chronic patients. They developed nursing treatment program to help the patients, caretakers, family members and the community to realize their capability to make a decision and solve problems or control health-related

situations and offer quality care. There are relevant researches about capacity building as follows.

1. The quasi-experimental study about effects of community capacity program on knowledge, capability, leadership, and motivation of family health leaders of Chaoniyom and colleagues in 2005 was conducted at rural area, Kokkeenhon subdistrict, Panthong district, Chonburi province. The samples included 5 experts, whose capacity in health promotion were strengthened by training, and 36 family health leaders. Research procedure was separated into 3 phases, including community preparation phase, capacity building phase and building network phase. Capacity building training program consisted of training about health promotion, communication and problem solving skills and evaluation skill. Evaluation on knowledge, capability, leadership and motivation according to the manual and action plan was conducted at the first, third, and sixth month. The results demonstrated that knowledge, capability, leadership, and motivation in taking care of oneself and family and community health promotion of family health leaders after participating the program were significantly better than before or than that of the control group ($p < .05$). The knowledge and ability of family health leaders were increased immediately after the intervention and in the 12^{th} weeks and 24^{th} weeks.

2. The research of Anuruang, Sinthu, Wanitkun, and Sriyuktasuth (2009) about the effect of self-empowerment program on perceived health status and satisfaction in healthcare services of women with hypertension, who were admitted at hypertension clinic, Pakthongchai Hospital, Nakhonratchasima province. This study was quasi-experimental research conducted with two groups and measured before and after the experiment. The samples were 76 women with unknown-cause hypertension randomly assigned into experimental and control groups equally. Behaviors, namely diet, exercise or physical activities, continuous treatment, stress management, and risk avoidance behavior in the hospital and at home were compared. Individual home visit 3 times, once in 2 weeks, totally 8 weeks was conducted. The results revealed that perceived health status and satisfaction in healthcare services of the experiment groups were also higher than that of the control group at the significant level of $p < .05$.

3. Prasonsuk and Mattwangkul (2009) studied about the effect of capacity building program on awareness of the family in taking care of chronic patients, who were admitted at 2 public health centers in Kratumban district, Samut Sakhon province. The 62 families of chronic patients living in Klongmaduea subdistrict and Tasao subdistrict equally and randomly assigned into experimental and control groups. The 4-week program consisted of 3 phases, including phase 1: appraising readiness, phase 2: changing, and phase 3: integrating change. Each phase took 1-2 hours per week. The result showed that family capacity awareness of the experimental group was higher than that of the control group ($p < .05$). Family awareness in the area of disease, sickness and disease and sickness management of the samples had a higher score than the control group significantly ($p < .05$). The CARE program (Creating Avenues for Relative Empowerment: CARE) was developed to empower family caregivers in providing care (Li et al., 2003). The program was divided into 2 phases. The first phase was information provision. The second phase is practicing in elderly care in the hospital. It took 2 weeks for the experiment in the hospital and 2 months at home. The result showed that the program was able to improve skills of caretakers and decreased the incident of acute confusion and depression of elderly patients.

4. The research conducted by Sahar et al. (2003) to test the effect of the training program on knowledge, attitude, and skills of family caregivers of older persons. It was a randomized clinical trial (RCT) conducted in 240 family caregivers. They were assigned into experimental group 120 persons and control group 120 persons. The program took 3 to 6 months period. The result showed that knowledge of the experimental group was higher than that the control group ($p < .05$) at the 3rd and 6th month ($p < .05$).

5. The study of Shyu et al. (2010) about the effects of the individualized program for caregivers of stroke patients in Asian and Chinese families in Taiwan. It was a randomized experimental design conducted in 158 caregivers of older patients. They was assigned into experimental group 72 persons and control group 86 persons. The intervention was implemented in 12 months. Each step took 4-5 visit averaging 30 minutes per week both in hospitals and after discharge in 1st, 3rd, 6th and 12th month. The

result showed that quality of care of the experimental group was higher than that of the control group at a significant level of $p < .05$.

Care Ability

Meaning of Care Ability

According to Thai royal institute dictionary, care means concerns and responsibilities or the desire to do good, ability means the property to act. Phuwitayaphan (2004) defined the term ability of learning as the ability to acknowledge one's responsible task quickly. In addition, ability also means expertise in working or doing activities to attain good result and effectiveness as determined. Furthermore, it is a person's ability in making a decision on appropriate matter for performing his duty (Blanchette & Pietsch, 1999). Leidy (1994) defined ability as performing one's duty according to condition or capability within a person in various activities or as assigned. Ability can have many meanings in the area of administration, service, management, or business related to people and human resource management. In conclusion, care ability is a personal characteristic or property that includes expertise in performing tasks or activities by relying on former knowledge or existing experience to cause maximum benefit, success, or good, effective and quality results.

Levels of Care Ability

Care ability is enthusiasm, the attempt to seek an opportunity to learn the current task and new tasks continuously (Phuwitayaphan, 2004). It also indicates the expertise in performing taste or doing such activity to earn good result and effectiveness as determined. There are many levels of performing ability estimated by observation or quantitative measurement through personal learning process. Phuwitayaphan (2004) classified learning performance into 4 levels as follows.

Basic level. This level indicates the intention to learn the current assigned task. One is able to learn the information and the detail from the instructor quickly. He also seeks for an opportunity to learn the other's tasks both inside and outside the institute. He can improve his own performance from the errors.

Doing level. This is the determination of the target and expectation in learning one's assigned task. One is able to learn the assigned task on his own, search the information related to information sources, suggest about information sources for learning about assigned task.

Developing level. This is the ability to learn new additional tasks, which have never been practiced before. One can do it quickly. He is able to learn from problems and obstacles occurred to team members. He is willing to learn more. He has techniques and knows how to motive team members to learn the job by themselves.

Advanced level. This is the ability to learn the complex task or the task that can change the image of the institute. One shows his decision to improve himself by learning the job in his own line and other relevant lines. He creates atmosphere to make the team members to have conscious in learning tasks in order to improve them continuously. He supports the others to learn from mistakes and problems. He is able to apply the information from various sources to develop and improve working system, which influences all employees in the organization.

In addition, care ability is also an ability to function within such person. It expresses in performance on activities, such as taking care on one's best. Leidy (1994) classified functional ability into 4 characteristics as follows.

Functional capacity. This is maximum potential of a person's activity according to basic needs or additional roles beside former assigned responsibility. One is able to take care peacefully. It consists of the best care in the area of physical, mental, economic, social, spiritual, and learning.

Functional performance. This is the acknowledgement of person's ability in performing daily activities normally. This includes the ability in the area of mental, social, occupational, or various activities. However, it has not reached the maximum level of ability, including activities of daily living (ADL), such as dressing, eating, or taking a bath. Instrumental activities of daily living (IADL) are activities that include personal characteristics, habits, favorite things, and mental health, such as playing

music, reading books, gardening, chatting to exchange experience, meeting with friends and working.

Latent or reserved ability. This ability lies between maximum ability and functional ability. It can be used as appropriate, such as dressing appropriately, sufficient and effective financial management, or interaction with the society. This level of ability is the acknowledgement of benefit or maximum benefit.

Functional ability. This is the ability that emphasizes on personal potential, which is opposite to latent or reserved ability. It is the ability above operational level.

It can be seen that there are many levels of person's functional ability depending on the perspective in applying the ability to various tasks. Therefore, functional ability, especially in taking care of dependent elderly persons, the caregiver is crucial for drawing one's own potential to be maximally beneficial for taking care of elderly persons with good care quality.

Care Ability of Family Caregivers

Care ability of family caregivers to take care of dependent elderly person is the performance of family caregiver in helping elderly persons to perform their daily activities or live as normal as possible. From the nursing concept of Orem (Hanicharoenkun, 1997; Orem, 1995, 2001) regarding to self-care, one who cannot take care of himself surely requires support from others, especially his family members or caregivers to fulfill needs in the following aspects.

1. Universal self-care demand: it is a requirement of every human being to maintain the structure and function of individual health and well-being (Hanicharoenkun, 1997; Orem, 1995, 2001). Finally caregivers should have ability to fulfill physical needs which are maintaining excretion, supplying clean air, water and adequate food, and balancing activity and rest. In addition to those physical needs, basic and advanced activities of daily living are also needed by dependent elders (Karlsson, Edberg, Westergren, & Hallberg, 2008).

2. Development self-care demand: It is the demand derived from the development of the individual, situations or events that occur in each phase of the life cycle particularly in the old age (Hanicharoenkun, 1997; Orem, 1995, 2001). Family of dependent elders should have the ability to prevent harm such as the management with health problems, chronic illness, diseases, medication, etc. The ability to seek and maintain appropriate support, awareness and attractive to protecting their well-being are also needed.

3. Health deviated self-care demand: This demand is derived from illness such as medication, rehabilitation, exercise, and behavioral modification.

Moreover, Schumacher et al. (2000) presented family caregiving skills as follows:

Monitoring skill. It is the observing skill after providing care to the dependent elders. It composed of observing subtle changes, verbal and nonverbal indicators of the care receiver's well-being, using instruments for monitoring when appropriate, using appropriate vigilance, making accurate observations, keeping a written record when appropriate and noticing patterns.

Interpreting skill. It is the skill of observation and evaluation. It composed of the recognition of deviations from normal or expected clinical course, recognizes that something is "different" or "wrong", judging serious problem, seeking explanations for unexplained signs and symptoms, asking detailed questions for the purpose of developing an explanation, making correct attributions, using reference point in making sense of observations and considering multiple explanations for an observation.

Making decision skill. It is the skill of determining of evidence-based or the situations to deem. It composed of assessing multiple illness care demands, weighing competing illness care demands, weighing the importance of conflicting priorities, attending to multiple care issues at once, thinking ahead about possible consequences of a given action.

Taking action skill. It is the process of guidance family caregivers to take action or perform caregiving tasks effectively. It composed of the recurring actions taken at effective intervals, using effective "reminders" to take actions, taking actions to

correspond with the ill person's pace, taking actions with respect to the rhythm of the dependent elders, taking actions with respect to the ill person's daily rhythm of responses, taking intermittent or one-time actions appropriately, taking own needs into account in timing actions, organizing multiple actions systematically, developing routines to manage complex tasks, organizing illness care tasks so that the ill person can be involved if appropriate, using a system for remembering when actions are due, using different tracking systems for scheduled actions and actions that are taken as needed and has the ability to take action on multiples issues at once.

Making adjustment skill. It is the advanced action to improve action. It composed of the adjustment amount of food, PRN medications, rest, exercise, etc. until optimum comfort and symptom management achieved, modifying long-standing routines to accommodate illness situation, modifying environment to accommodate illness situation, trying multiple strategies until a solution to caregiving problems found, using "mistakes" as an opportunity for learning, considering what led up to a "mistake" and altering what appears to be the source of the problem, searching for an alternative when one illness care strategy no longer works and using creativity in problem-solving.

Accessing resources skill. It is the skill to process to get the resources that including the provision to enhance or assist for personal care, housework and information. It composed of seeking resources wisely; casting a broad net, using advice judiciously, seeking authoritative resources when appropriate, weeding out erroneous, inaccurate, or inadequate advice, persisting in obtaining resources until what is actually needed is found, taking initiative in seeking resources, figuring out which health care providers are most accessible, helpful, and knowledgeable and makes own needs known.

Providing hands-on care skill. It is the caregiving skills. It composed of performing procedures safely, performing procedures gently, paying attention to the ill person's comfort, taking the time needed with procedures to get the best results and the results of procedures are aesthetically pleasing.

Working together with the ill person skill. It is the cooperation with the care recipients and the dependent elders and family caregivers for caregiving tasks. It

composed of the perceiving when to take a more active role in illness care, using an incremental approach in taking on illness care tasks in order to preserve ill person's sense of personal agency, perceiving when to step back, using an incremental approach in stepping back from illness care tasks and provides care in the way that is meaningful in the context of the care receiver's personal history and identity.

Negotiating the health care system skill. It composed of communication between family caregivers and health personal, advocating for patient and/or self when necessary and seeking assistance from health care providers in a timely way.

Assessment of Ability of Care for the Dependent Elders

From literature review on caregiver's ability assessment, it was found that caregiver assessment was complex. It can be measured by the following measurement in many methods as follows.

Family Caregiver's Care Ability Assessment. It was developed by Pukdeeporm (2005) based on the concept of self-care and dependable persons of Orem and Hanucharurnkul (Hanucharurnkul, 1997; Orem, 1995, 2001). It contained 14 positive and negative questions measuring ability to provide care in three dimensions, including physical care, psychological care, social and environmental care. Statements were scored as 1 to 5 according to the level of perceived ability starting from strongly agree to strongly disagree. Higher scores indicated higher levels of care ability and content validity was tested by five experts in the fields of gerontology, education and family nursing. The comments and suggestions from experts were taken into consideration for the revision of this instrument. The content validity index was demonstrated at .83.

The Assessment of Family Caregiver's Ability or Expertise (Mastery Scale). It is used to assess self-perception of caregivers on their ability, expertise, or proficiency in managing the changes or problems on one's own. This assessment was developed by Pearlin and Schooler (1978) in the study on problem confrontation of the persons, who experienced stress or pressure from caregiving. The tool consists of 7 positive and negative questions. It asked the caregiver about the ability to control things, the importance of the problem, and his own solutions. It has 4 responses ranged from

strongly agree, agree, not agree, and strongly not agree. The tool was confirmed for internal consistency reliability with 67 samples. Cronbach's alpha coefficient was .75 in the first test, and the value was .79 in the second test, which were acceptable.

Caregiver Competence Scale (CCS). Pearlin, Mullan, Semple, and Skaff (1990) developed the self-report tool for caregivers, who confront stress in taking care of patients with dementia. It was an assessment by the caregiver's own perception when he is stressful from taking care of the care receiver, who has a behavioral problem or the stress with conflict in the role of the caregiver and work. The tool consists of 4 questions with 4 responses ranging from 0 to 3. The caregivers were asked about the ability in managing the situations related to care. The internal consistency reliability was tested with cronbach's alpha coefficient at .74 (Pearlin et al., 1990) and .90 (Henriksson, Andershed, Benzein, & Arestdt, 2011).

Caregiver Competency Scale developed by Kosberg and Cairl (1991). It was developed to assess the ability of caregivers of Alzheimer patients, who have to confront with problem or burden in taking care of the patient with Alzheimer's disease. The tool consists of 21 questions about 5 aspects of ability including physical care, satisfaction and responding to security needs, social needs, responding to personal needs, and satisfy needs for daily living. The responses ranged from 1 to 4, namely cannot, can do a little, can do moderately, and can do the most. The tool was tested for reliability by using the survey among 20 subjects. Cronbach's alpha coefficient was ranged from .69-.78 (Kosberg & Cairl, 1991).

Quality of Care

Meaning of Quality

Quality, according to Thai royal institute dictionary, means outstanding characteristics of the individual. The properties are required to be in line with the client's expectation. It can be either product or service (Chalermjirarat, 1996). It is consistency with regulation that causes appropriateness and satisfies necessary needs beneficial for the user (Phuwitayapan, 2004). Care means paying attention, protection, and control. When combined the word quality of care, it certainly means paying

attention to the person and giving good care. It is certain characteristic that shows value corresponding to need and offers maximum effectiveness. Donabedian (1980, 1988, 2003) defined the term quality as offering maximum quality of care as much as possible. It satisfies an individual or the society. It consists of care in the area of technique (technical) or science and medical technology or health area in managing with a health problem. Corresponding to the meaning of quality of care, it means characteristics of service according to standard without errors. It offers good results in terms of the quality of life of the care receiver (Supachutikul & Sriratanaban, 2000). It can be seen that quality of care is care that focused on individual needs in order to attain good result and maximum benefit to that individual. Quality of care also means services in the healthcare system and hospital. The term quality of service means services satisfying essential need of the client based on professional standard, which is correct according to the standard, need, and expectation of the client. It creates customer satisfaction after the service is delivered (Phuwitayapan, 2004).

About the quality of for elderly person, Phillips et al. (1990a, 1990b) defined the term quality of care for elderly persons as the level of process and direction to help elderly persons according to standard and the best norm. It is the service that meets the expectation or need of elderly persons. For instance, elderly persons in the foster home need foods, elderly care, environmental care, and personal care. These are guideline for managing services and developing quality of care as expected by elderly persons (Tungteakkhum, 2002). Good and quality guideline to take care of dependent elderly persons is taking care elderly persons by their own family members and/or employees. They must take care of them in the area of spiritual, mental, emotional, social and spiritual. They must coordinate for help from within and outside the family so that the elderly persons have good hygiene (Jitramontree et al., 2009). It can be seen that quality of care of dependent elderly person is providing services or activities to help elderly persons according to regulation or essential need. They will be satisfied in the care according to basic needs for living of dependent elderly persons. The care is related to physical, mental, economic, social, and proper environmental management.

Dimensions of Quality of Care

Quality of care has very wide scope. It can be classified into many dimensions as structure, process, and outcome. In addition, when considered on crucial composition of care service arrangement and overall healthcare system, the total process and outcome can be classified into 9 components. It can be explained as follows (Campbell, Roland, & Buetow, 2000; Donabedian, 2003; Maxwell, 1992; Rantz et al., 1999; WHO, 2006).

Efficacy. Efficacy is the ability that causes success or improvement from the application of scientific and technological resources. The meaning of efficacy in the area of service related to healthcare is the ability to provide healthcare services by the healthcare provider or caregiver, who are able to offer good care in helping the patient or the client in the healthcare system. Caring ability is obtained from existing practice based on research, experience and proficiency of the practitioner (Donabedian, 2003; Maxwell, 1992).

Effectiveness. Effectiveness means the ability in performing activities of the individual, institute, or organization. It results in production that meets expectation. In the meaning of quality of care, it requires good result of care as determined or expected by the client as well as their satisfaction. Effective healthcare is the service that is derived from knowledge and empirical evidences (Campbell et al., 2000).

Acceptability. Acceptability means accepting one another's opinions about healthcare. This includes need, expectation, and mutual goal of the clients and service providers as well as family members. Acceptance, which requires quality of care, is giving precedence to the need for care, mutual interaction, risk management as well as all expenses related to care that must be considered. There is mutual agreement leading to acceptance of care in order to attain quality (Donabedian, 2003; Maxwell, 1992; WHO, 2006).

Accessibility. Accessibility means receiving opportunity or the help in order to access or receive healthcare service in healthcare system. It depends on several factors, such as personal factors in receiving the service, travelling or distance to attain the service, economic factor of the clients, expense, insufficient income, as well as social

condition, culture, religion. Those relevant factors are related to the decision to receive a service (Donabedian, 2003; Maxwell, 1992; WHO, 2006).

Equity. Equality means that all clients have been provided equally services regardless nationalities, economic status, and residential address (Donabedian, 2003; Maxwell, 1992; WHO, 2006).

Optimality. Optimality means offering the best service with balance between the cost of treatment and benefit from care. In the area of quality of care, maximum benefit is received when the client has paid medication expense and calculated all relevant cost of medication. It must be worthwhile for good nursing service. There must be no harmful complication. It can be called proper care (Donabedian, 2003).

Relevance. Relevance means the best form of service that achieves success as needed (Campbell et al., 2000; Maxwell, 1992).

Legitimacy. Legitimacy means legal activities, which correspond to ethics, and tradition. It is in line with the law, regulation, or social norm, which are considered correct and appropriate by the society (Donabedian, 2003).

Safety. Safety is the activity that emphasizes on minimizing the risk for the clients (WHO, 2006).

About quality of care in institutions, they mostly emphasize on health care center or hospital, which directly involves service providers and the clients. Therefore, it is necessary to consider on quality and maximum benefit the clients should receive. When considered on residential care, especially the ones who take care of dependent elderly persons, Rantz et al. (1999) found that crucial components that contributed to quality care in service management in the nursing home were as follows.

Staffs. Staffs are the officers or personnels that provide care, such as nurses, nurse assistant, and volunteers. They must be sufficient for the need. They must also be good at job transition (turnover) with consistent. They are responsible for the care. They dress properly and clean. Professional nurses are responsible for total care.

Care series. Care series include personal care such as cleaning the body, mouth, and teeth, dressing, using the toilet. This covers managing the symptom, such as unable to restrain urination, helping to eat, restoring performance, moving, transferring, preventing accident and safety, respecting personal right (Rantz et al., 1999).

Family involvement. Family involvement is the help from family members in sharing responsibility on caring activities as well as interaction among family members and healthcare personnel. They give advice and support in different areas. They plan together, make a decision with family members in taking care in the area of physical, mental, social, and protecting the right of sick elderly persons or chronic patients, and offering the best care (Lertrat, 2008; Rantz et al., 1999)

Communication. Communication is the exchange of information between healthcare personnel and family members with systematic communication from the sender and receiver through the need and expression of satisfaction or dissatisfaction of the service. There must be good communication with family members in language or other forms of relevant expressions (Rantz et al., 1999).

Home care. Home care is arranging activity or the environment around the residence to look like clients' home. They will feel like they are staying at their home, for example, arranging the environment, having volunteer, children, pets, planting and gardening (Rantz et al., 1999).

Environmental management. Environmental management is taking care of a surrounding area to be clean, no smell, no noise, and with proper space. In addition, providing facilities and furniture in good condition, convenient for usage, and with good lighting to prevent accident and danger from utensils around the residence is necessary (Rantz et al., 1999; WHO, 2006).

Phillips et al. (1990a, 1990b) proposed quality of care of frail elderly residing in long term care facilities and at home as follows:

Environmental aspect. This is taking care surrounding area of the residence or home to be secure for daily living of elderly person, for example, having the space for

doing activities conveniently, arranging the place for relaxation, supporting enough sleep, the bed is clean, no humidity, private, and wide enough. The bed is elastic, not too hard or too soft (Bravo, Dubois, Charpentier, Walsh, & Emond, 1999; Phillips et al., 1990a, 1990b).

Physical aspect. This is taking care of the body and skin from the head to the feet. This includes cleaning hair, scalp, and fingernails to be clean, not smelly. Prevent the cause of wound, scratch, and bedsore on the skin are also needed (Bravo et al., 1999; Phillips et al., 1990a, 1990b).

Medical management. This is taking care in the area of nursing, which can satisfy the need of elderly persons in the area of treatment, providing supportive equipments, taking the patient to the doctor, providing medicine as well as using empirical evidences to facilitate healthcare for elderly persons (Bravo et al., 1999; Phillips et al., 1990a, 1990b).

Psychosocial aspect. This is arranging activities so that elderly persons can participate with the social activities, such as meeting, chatting with caregivers, relatives, close friends or contacting with other relevant persons. Attending social is necessary for elderly persons to receive or express their emotion and feeling of love, pride, and being respected or admired (Bravo et al., 1999; Phillips et al., 1990a, 1990b).

Human rights aspect. This is showing respect to personal rights and privacy of elderly persons and do not disclose the secret or anything they do not want to. Moreover, right protection is protecting and claiming the rights elderly persons deserve. (Bravo et al., 1999; Phillips et al., 1990a, 1990b).

Financial aspect. This is providing financial support on the care expenses of elderly persons. Financial management is for benefits and able to manage personal properties of elderly persons correctly and appropriately (Bravo et al., 1999; Phillips et al., 1990a, 1990b).

From the review on relevant documents and researches related to quality of care for chronic patients or dependent elderly persons, the assessment can be made in many forms as follows.

1. QUALCARE scale. It was developed by Phillips et al. (1990a, 1990b). This quality of care assessment consists of 6 dimensions, including environment, physical, medical management, psychosocial, human right, and financial aspects. It contains 53 questions, including 14 items of environmental aspect, 10 items of the physical aspect, 5 items of medical management aspect, 12 items of psychosocial aspect, 7 items of human rights aspect, and 5 items of the financial aspect. Its 5-level measurement ranges from 1 to 5 scores. One score is the best and five score is the worst. This scale was tested for reliability and Cronbach's alpha coefficient was reported of .97. When considered on structural validity, it was found that this tool had prediction capability at significance level of .05 in some factors, such as burden, stress, daily care activity, mental condition, and image (Phillips et al., 1995).

2. Quality of Family Caregiving Tool of Levin, Kartrite, Inone, Stewart and Archbold (1997). It measured the ability to perform 10 activities well, from waking up in the morning, taking bath, and managing with behavioral problems. In the assessment, if caregiver answers yes, the score is 1, if no, the score is 0. This tool was tested for reliability. Cronbach's alpha coefficient was ranged from .73-.93.

3. Family Caregiving Consequences Inventory (FCCI). Shyu et al. (1999) developed the tool for assessing outcome of family care in Taiwan (Shyu et al., 1999; Shyu et al., 2010). The tool consists of 3 aspects, including frail elder outcome, family outcome, and caregiver outcome as follows. Elder outcome aspect consists of 11 items, namely cleanness of care receivers, proper clothing, amount of water received, quality and amount of food taken daily, level of convenience, tightness of the skin, living environment, emergency care management, provision of supportive equipment, nursing management, and medicine management. Response scale ranges from 1 to 3, 1 means satisfaction, 3 means the most satisfaction. Family outcome is the assessment of family members, who provide to elderly persons. The number of items is 6. The questions include health condition, family relationship, social activities, need to be pleased,

emotion, and problem-solving ability. Response scale ranges from 1 to 3, 1 score means feeling bad, 2 scores mean felling good, and 3 scores mean feeling very good. Caregiver outcome is the assessment of caregivers, who provide care the closest care for elderly persons. The questions consist of 4 items, including rewarding or receiving spiritual reward, relationship with caregiver, self-development and caregiver's emotion. Response scale ranges from 1 to 3, 1 means feeling bad, 2 mean feeling good, and 3 mean feeling very good. This tool was tested for reliability with Cronbach's alpha coefficient of .76.

For this study, FCCI was chosen to measure the quality of care from caregivers of dependent elderly persons because of its quality.

Theoretical Framework

The dependent elder is a person losing the ability to perform the activities of daily living (ADL) due to physical, psychological, emotional and socioeconomic impairment resulting in a need for assistance from others in holistic care. Most of the dependent elderly population dwells alone or with family. Family members, known as informal caregivers, are relatives who provide most of the assistance required for performing the activities of daily living (ADL). Family caregiving activities provided to dependent elders are complex tasks requiring both the knowledge and skills of family caregivers. Therefore, family caregivers need to be strengthened their caregiving ability in order to improve the quality of care for dependent elders. To improve the ability of family caregivers in caring for depending elders at home and improving care quality, the family caregiver capacity building program was applied through family capacity building processes of Hulme (1999).

The family caregiver capacity building program consists of activities in four phases. Firstly, the professional-dominated phase is the dependent phase of family caregivers. In this phase, knowledge about family caregiving for dependent elders, including knowledge of problems and needs of dependent elders, common chronic illnesses, geriatric syndrome, caregiving roles, family caregiving process and activities, rehabilitation, device usage, and injury and accident prevention were provided. Secondly, the participatory phase is an active phase in which family caregivers are more

confident about caring for dependent elders. The activities in this phase are skill training of family caregivers, including basic activities of daily living, including bathing, dressing, eating, mobility, moving from chair to bed, vital signs monitoring, knowledge and caregiving skills: pressure ulcers, drainage, feeding, oxygen, foley's catheter and management of constipation and rehabilitation: occupational and physical therapy. Thirdly, the challenging phase is the process in which family caregivers gain more power in caring for dependent elders. The activities in this phase include training for the negotiation skills of family caregivers and partnership relationship development, partnership relationship, communication and negotiation skills, and problem solving skills. Finally, the collaborative phase is an independent phase where family caregivers are monitored, supported, appreciated and accepted in care. The interaction between family caregivers and the researcher in the process of empowerment will strengthen the care ability of family caregivers by increasing knowledge and confidence in care ability.

In addition, family caregivers will be strengthened in collaborating and negotiating with healthcare professionals and taking great responsibility for patient care while further improving the family's knowledge and skills to improve patient care. In this phase, family caregivers acknowledge capacity, know of rights, become aware of any problems arising and feel a sense of self-worth in addition to lower expenditures for patient care, all of which will lead to quality of care for dependent elders in Figure 3.

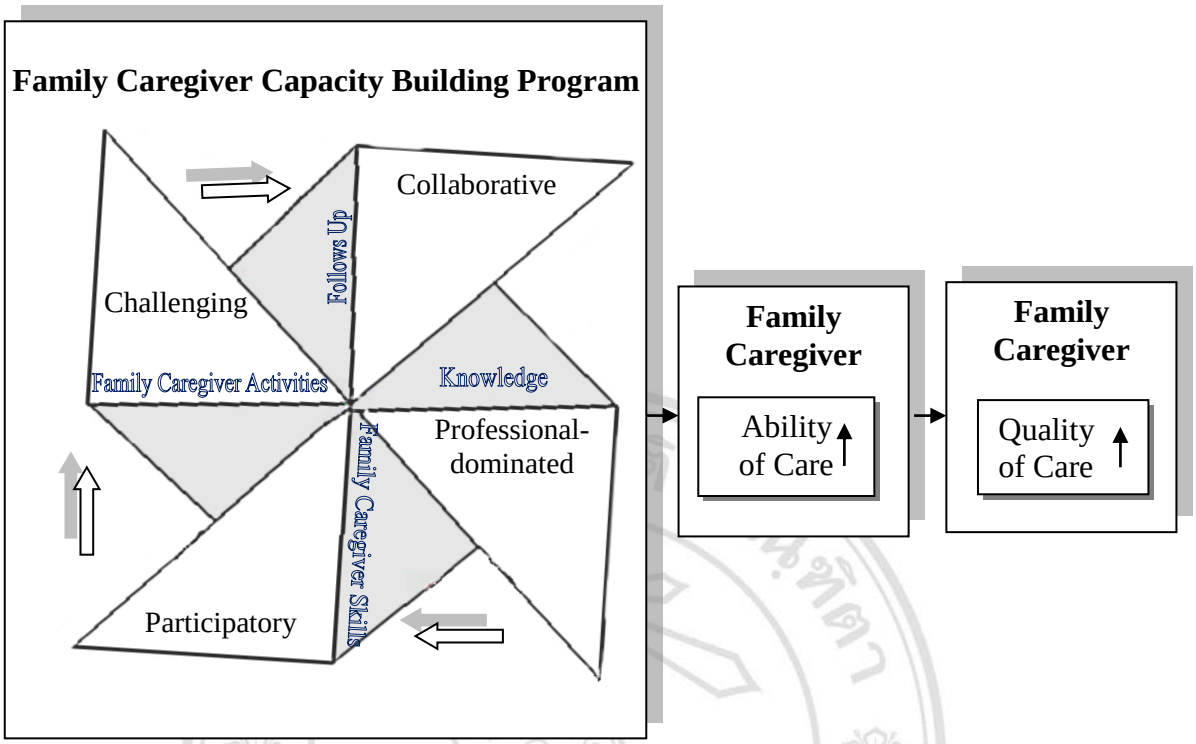

Figure 3. The conceptual framework of the study