CHAPTER I

INTRODUCTION

Background and Significance of the study

Myocardial infarction (MI) is a catastrophic manifestation of coronary artery disease (CAD), which develops impaired functional status, angina symptom and a diminished quality of life (Spetus, et al, 2003; Hamilton & McGovern, 1999). Coronary artery disease is an important public health problem of both developed countries and developing countries, due to rising morbidity and is the major leading cause of death and disability in developed- countries (Reddy & Yusuf, 1998). In Thailand, cardiovascular disease is fourth in the top ten leading causes of death in the Thai population: 30.29 per 100,000 populations (Bureau of Health Policy and Plan, 2001). Myocardial Infarction is a chronic illness which is life threatening and a cause of heart attacks, disability, and consumes a high expense in caring. It also affects the quality of life of the patients.

Quality of life is a perception of life satisfaction or happiness or well-being of patients. Quality of life (QOL) has many definitions, which vary worldwide due to differences among cultures and depends on different models so that there are many instruments used to measure QOL. Quality of life is used here to emphasize health related problems. Health related quality of life is the value assigned to the duration of life as modified by impairments, functional states, perceptions, and social opportunities as influenced by disease, injury, treatment, or policy (U.S. Department of Health and Human Services, 1990). From the definitions of quality of life, it can be concluded that quality of life is an individual perception of satisfaction (or dissatisfaction) with the cultural or intellectual conditions under with you live

(Ferrans & Powers, 1984; WorldNet Dictionary, 2000), both objective (externally observable and directly measurable along a physical dimension) and subjective (indirectly measured by questionnaire) of multidimensional domains as: physical and functions, psychological and spiritual, socioeconomics and family (Oleson, 1990). It is life worth living not only for survival and a decrease in morbidity, but also as a whole person (Padilla and Grant, 1985).

QOL in myocardial infarction patients was impacted from the disease. The results of life experience of Thai patients with post MI demonstrated the impact of the disease on patients' QOL and diminished competencies in their lives (Nathongkhan, 2000; Tumnong, 1998; and Juntawises, 1996). They were congruent with the results of the QOL studies in Western countries as follows:

Concerning both physical and functional conditions, post MI patients have had severe chest pains which leads to difficulty breathing, then weakness (Underhill, 1989), anorexia, insomnia, digestive impaired function (Guzzetta & Dossey, 1992; Knapp, 1985; Suwannarat, 1985) decreasing in competency of activities, limiting their ability to perform household tasks (Olson, et al., 2003), lowering the progression in their work or occupations, including decreasing social lives and higher possibilities of death. Patients are unable to do anything as they had done before, having limitations on food and activities, needing regular exercise and changing their lifestyle (Tantithum, 1993).

With psychological well-being, post MI patients felt disabled and that they were burdens on their families. They felt emotional disturbance, denied they had the disease leading to uncooperative behavior with the health team, depression, decreased environmental responses and isolation (Guzzetta & Dossey, 1992; Suwannarat, 1985), uncertainty, fear of dying alone with nobody knowing or there to help them

(Tumnong, 1998; Cassem & Hackett, 1979 cited in Suwannarat, 1985; Lewin, 1993) and decreased self esteem (Juntawises, 1996).

Spirituality is generally defined broadly as embracing "love, compassion, caring, transcendence, relationship with God, and connection of body, mind, and spirit" (O'Brien, 1999). Spirituality affects all aspects of a person's well-being. It is viewed as internal for each person, giving hope, promoting inter-connectedness, and providing a sense of well-being. Spiritual distress can lead to physical and emotional illness (Heriot, 1992). Individuals and their families, when faced with the crisis of a chronic illness, and especially with impending death, may look to other for spiritual support: access to a chapel, to a visit from the clergy, to pray with staff.

For Socioeconomics, quality of life includes specific aspects of emotional support, home, employment, finances, neighborhood, and friends (Ferrans, 1996). The components may also include social support and cultural influences. Persons with chronic illnesses also suffer financially due to the additional expenses incurred by medical insurance rates or out-of-pocket expenses for items not covered by insurance. Transportation fees for getting and receiving medicine or treatment such as special dietary food or supplements, folk or alternative forms of treatment in an effort toward improvement (Cassileth, et al., 1991) all mean that the MI patients have significant pressures to the financial and material well-being of the patients and their families. There is a decrease in competence to work, and an increase in absence at work ,which causes the decrease in income. Economic problems will occur in patients and their families especially the families whose money is not re-imbursed and with no money to pay for the treatment or medicine, which is quite expensive (Tumnong, 1998; Juntawises, 1996)

By family, we mean aspects of the quality of life connected to family health, spousal relationships, family happiness, and children (Ferrans, 1996). Any illness affecting a family member will inevitably affect that individual's family and their quality of life. Factors that affect family quality of life include family structure and interaction patterns; the availability of social networks or support resources; the potential for adaptation; and family philosophy, such as beliefs, attitudes, values, and perceived stresses; and the impact of illness (Jassak & Knafl, 1990).

Partners and other family members are often more psychologically disturbed than the patient and this may have an important influence on the patients own anxiety and long-term outcome (Svedlund, 2003; Doerr, 1979; Cay, 1982). Post coronary women consistently report a reluctance to make any lifestyle changes that might interrupt family routine (Johnson & Morse, 1990; Varvaro, 1993). Post MI patients had decreased working performance and role insufficiency (Juntawises, 1996). Adults with chronic illness (n=227) also have identified family relationships as an important area of quality of life (Burckhardt, Woods, Schultz & Ziebarth, 1989).

From the previous literature, it was shown that QOL in patients with MI in both Thai and Western countries were impacted by the multi-dimensions of QOL: physical, psychological, spiritual well-being, socioeconomic and family aspects.

In Thailand, there have been quite a lot of studies concerning the quality of life in different populations and on different diseases, for instance: the elderly, children, women, adults; concerning diseases such as: coronary artery disease, MI, heart failure, chronic obstructive pulmonary disease (COPD), asthma, stroke, cancer, diabetes mellitus (DM), and Leukemia etc. From the literature review of QOL in Thai patients with post MI, there have been eleven quantitative studies which used different conceptual basis' of quality of life and eight studies reported that CAD

patients had a good quality of life (Ratanamatanont, 1987; Taechareith, 1991; Jubjai, 1997; Purngwongsamrand, 1998; Polkanchanakorn, 1998; Leingkobkij, 1998; Yamsakul, 1999; Saengsiri, 2003., one study had a low QOL (Masnaragorn, 2001), one experimental study had no change in QOL between experimental and control groups (Rhiangtong, 1999), and the last one had an improvement in QOL after CABG (Khuwatsumrit, 1996).

From the previous literature, the results of three studies about the life experiences of Thai patients with post MI (Nathongkhan, 2000; Tumnong, 1998, Juntawises, 1996), demonstrated the suffering and poor QOL which was not congruent with the result of quantitative research in Thai patients with post MI. Consequently there was an interesting issue to be discovered.

While analyzing the Thai nursing research, it was found that: in the first study, they used different definitions, different conceptual frameworks and different measurements which may have influenced the results of QOL in quantitative research of Thai patients with post MI. In the second, psychometric properties of the QOL instruments in general were quite good, with the value of the instrument reliability of between 0.7-0.98, which was quite high but it may not have represented the constructs of QOL which were precise for Thai patients. In addition, all MI studies had tested the content validity and reliability of the instrument but they had not tested the construct validity.

In the third, most instruments used in the previous QOL research were generic instruments. Generic instrument detected the general conditions but were not quite sensitive enough to detect the more subtle and specific changes in patients with post myocardial infarction. Jette, et al. (1981) reported that scales comprised of items that referred to a specific health problem have higher reliabilities than scales derived from

items that fail to mention the problem or disease of interest. Although useful in assessing overall function, a generic health status measure, such as the SF36, may not be responsive enough to detect important clinical changes in patients' coronary artery diseases. A disease-specific instrument, such as the SAQ, can be an important and relevant outcome measure (Spertus, Winder, Dewhurst, Deyo, and Fihn, 1994).

The fourth had more consideration, and all studies used conceptual frameworks and instruments which had been developed from western countries, which has a different culture to Thai culture. Some items in the instruments were not appropriate to the Thai communities, including the barrier in language causing misunderstandings or/and inappropriate questions concerning different cultures or/and the cross culture (Leingkhobkit, 1999; Yamsakul, 1999).

Culture represents a unique way of perceiving, behaving, and evaluating the external environment and as such provides a blueprint for determining values, beliefs, and practices (Andrews & Boyle, 1996). Culture is influenced by belief, health behavior, sickness, and death. In the West, illness is almost an external intervention, adversely affecting an otherwise self-determined life course but it is not true in many other cultures where fatalism, karma, and cultural pre-determinism are essential for their life cycle.

In Thai culture and society, there are some specific characters as follow: Thai people often stay in a group, closed communication, strong and closed relationships likely to be relatives or cousins, respect to the elderly and having compassion for each other. With this belief, they do not lack helpers or support when one person in the family is sick and cannot do his family role (Suparb, 1981).

Thai families are the primary resource in caring for the elderly and sick members. In the first study, 96.2% of the elderly have relatives to take care of them

(Choprapavan, et al. 1995). Family life is a crucial component of the quality of life (Goodinson & Singleton, 1989; Jalowiec, 1990; Jassak & Knafl, 1990). In the representative U.S. sample, family life explained 28% of the variance in quality of life, which exceeded that explained by health or standard of living (Campbell et al, 1976). Adults with chronic illnesses (n = 227) also have identified family relationships as an important area of quality of life (Burckhardt, Woods, Schultz & Ziebarth, 1989). Acute MI significantly influences the QOL for patients and their family (Svedlund, 2003).

In the second, about 96% of Thai people are Buddhist and believe that the elder child is obligated to provide care for their parents, and by seniority so that a younger person must respect an elder (Payutto, 1997). In western culture, family is predominantly a nuclear family composed of a father, mother, and children. When the children grew up to be adolescents, they left their homes and lived by themselves. Parents would care for themselves so that the independent role of a person is dominant in western family culture. When questionnaires asked Thai patients about physical independence, it would not be appropriate because Thai patients did not have an opportunity to do something by themselves. Their children would do and prepare every thing for their parents. Therefore, this question may not be appropriate for Thai patients and Thai families. It would cause some errors in the results if this question was asked of a Thai family, which is an extended family.

Beyond that, the belief in Buddhism can be a behavioral controller. Buddhism influences people to be able to stay in different events, either negative or positive, with little concern about themselves. Thai Buddhists believe in karma: good deeds will receive good results and bad deeds will receive bad results. Thai people also believe in fate or destiny so that they will accept any changes that occur in their lives

easily as a result of what they did in the past (Hanucharurnkul, 1988), birth, growing older, sickness and death. This statement is supported by the research of Life experiences relevant to the life quality of Thai women with diabetes (Puavilai, 2000), and self-care and dependent-care experiences of Thai patients recovering from coronary artery bypass graft surgery:

From an Ethnographic study (Praditkul-Asdornwised, 2000), people in western countries are generally Christian and believe in God, that a person is an integrated whole, created to live in harmony with God, self, others and the environment. Because of this health means being able to function as God created us to be. It involves reconciliation with God and others, forgiving and accepting forgiveness, loving and being loved, finding meaning and purpose in life leading to a sense of joy and hope as well as freedom from physical ailments. Then, asking to be satisfied about your physical independence may be different for different people from other cultures.

Quality of life in Thai patients with post myocardial infarction was measured by instruments developed from Western countries which have different cultural oulooks and ways of living. The measurement of QOL in Thai patients also demands a suitable and appropriate instrument.

Measurement is the heart of virtually all scientific endeavors. The instruments and the psychometric properties used to evaluate them will vary by the type of measurement undertaken and the context and the goals of the scientific endeavor. There has been a rapid and significant growth in the measurement of the quality of life as an indicator of the health outcomes in patients with Myocardial Infarction. Measurement consists of the rules for assigning symbols to objects to numerically represent quantities of attributes. Although there are no universal rules for measuring

such constructs, developing rules that are eventually accepted is important for standardization and establishing norms. There are multiple criteria (psychometric properties) that are used to evaluate the instruments. The criteria that are most relevant depend on the goals of the assessment and the scientific endeavor undertaken (Netemeyer, et al, 2003). There is no QOL instrument which has been constructed from Thai people to measure Thai MI patients.

Naturally, when faced with the problem of the absence of a suitable HRQOL instrument in the country's own language and culture, there are two choices: 1) to develop a new instrument, or 2) to modify an instrument previously validated in another language and culture. This process is referred to as cross-cultural adaptation of existing measures ((Spertus, Winder, Dewhurst, Deyo, and Fihn, 1994).

According to the limitations of measurement of QOL in Thai patients with post MI, as discussed above, the development of the QOL instrument in Thai patients with post MI is necessary. It will be a significant instrument for use in future research. The assessment of the QOL in Thai patients with post MI, precisely and accurately, will occur when using an instrument with clear conceptualization, correct construction, and good psychometric properties: validity and reliability. Hoping for a precise and efficient QOL instrument will develop knowledge by giving effective data that can be used to plan for the better QOL outcomes, differentiate between two therapies with marginal differences in mortality or morbidity and to compare outcomes between two different treatment modalities, in Thai patients with post MI such as medicine versus surgery. Quality of life data may also be used to estimate the burden of specific diseases and to compare the impact of different diseases on functioning and well-being

Research questions

1. What was the construct of the quality of life in Thai patients with post Myocardial Infarction ?

2. What is the psychometric property of the quality of life instrument for Thai patients with post Myocardial Infarction?

2. 1 What is construct validity?

2. 2 What is internal consistency reliability?

2. 3 What is criterion validity?

3. What is the norm of Quality of life in Thai patients with post Myocardial Infarction?

Purpose of the study

The purpose of the study was to develop the new quality of life instrument in Thai patients with post myocardial infarction.

The objective of the study

1. To study the construct of quality of life in Thai patients with post myocardial infarction.

2. To develop the instrument

3. To test the psychometric properties of the quality of life instrument in Thai patients with post myocardial infarction including:

3.1 Construct validity of the quality of life instrument in Thai patients with post myocardial infarction.

3.2 Internal consistency reliability of the quality of life instrument in Thai patients with post myocardial infarction

3.3 Criterion related validity of the quality of life instrument in Thai patients with post myocardial infarction by comparing a new quality of life instrument with SF-36 Health Survey for generic instrument and MacNew Heart Disease Health-Related Quality of life Questionnaire for specificinstrument

3. To find the norms of Quality of life in Thai patients with post myocardial infarction.

Scope of the study

This study was a cross-sectional study to develop the quality of life instrument in Thai patients with post MI and for testing the psychometric properties of the instrument. The participants were not in a critical condition or have serious complications such as heart failure or dangerous arrhythmia, or psychosis. This study was conducted in Bangkok, Chieng Mai a province in the North, Khon Khen a province in the North-East, and Songkla a province in the South of Thailand, which represented the population of Thai patients with post MI. Data was collected in two phases: phase 1 was a qualitative phase during the period of June to September 2005 and phase 2 was a quantitative phase during the period of February to May 2006.

Operational definition

Quality of life in Thai patients with post myocardial infarction: the definition would be derived from the result of this study

Post Myocardial Infarction patient: a patient who was diagnosed with Myocardial infarction at least two months before participating in this study, perceived their diagnosis, received medical treatment, and had experiences of unstable angina.

Significance of the study

The development of the Quality of life instrument for Thai patients with post MI can be defined as follows:

1. A disease-specific quality of life instrument in Thai patients with post MI was developed and given the precision and accuracy for measuring QOL in Thai patients with post MI.

2. As an effective instrument to evaluate the alternative therapies, to assess therapy effectiveness across populations and compare disease burdens across diseases for suitable QOL plans for Thai patients with post MI.

3. Nursing plans for the individual's QOL in Thai patients with post MI would meet the optimum quality of life.