CHAPTER 4

FINDINGS AND DISCUSSION

This chapter is illustrated into four parts. The first part presents the demographic characteristics of persons awaiting coronary artery bypass grafting [CABG]. The second part describes the experiences of persons awaiting CABG. The third part describes the management of persons awaiting CABG. The last part discusses findings of this study.

Part 1: Demographic Characteristics of Persons Awaiting CABG

Eleven persons who successful awaiting and had undergone CABG participated in this study consisting of six males and five females. The informants' age ranged from 42 to 72 years. Six of them are sixty years and more, the rest are lower than sixty. For their marital status, seven of them are married. One is divorced, and three are widowed. Nine of eleven informants have two to six family members in their family, while the rest are living alone. All informants are Buddhist. For the education level, five informants completed primary school and three hold bachelor's degree. A variety of occupational backgrounds were represented by the informants. Two informants were unemployment, two were retired government officers, two were farmers, two were grocers; and the rest were one government officer, one employee, and one building contractor. Their monthly incomes ranged widely from 3,000 to 30,900 baht. Six informants had monthly family income equal to or less than 5,000 baht. Only one informant had more than 20,000 baht. All of them had covered by health insurance. A summary of the demographic characteristics of informants was presented in Table 4-1.

Table 4-1

Summary of the Demographic Characteristics of Informants (n = 11)

Characteristics	n	Percentage
Gender		
Male	6	54.5
Female	5	45.5
Age (year) (Range = 42-72 years)		
< 60	5	45.5
60 and more	6	54.5
Marital status		
Married	7	63.6
Widowed	3	27.3
Divorced	1	9.1
Number of family members		
1 person	2	18.2
2 – 6 persons	9	81.8
Religion		
Buddhist	11	100.0
Education level		
Primary education	5	45.4
Secondary education	2	18.2
Vocational education	1	9.1
Bachelor	3	27.3

Table 4-1 (Continued)

Summary of the Demographic Characteristics of Informants (n = 11)

Characteristics	n	Percentage
Occupation		
Unemployed	2	18.2
Farmer	2	18.2
Retired government officer	2	18.2
Grocer	2	18.2
Government officer	1	9.1
Employee	1	9.1
Building contractor	1	9.1
Monthly income (baht/month)		
(Range = 3,000 – 30,900)		
Less than 5,000	6	54.5
5,001 - 10,000	2	18.2
10,001 - 15,000	1	9.1
15,001 - 20,000	1	9.1
More than 20,000	1	9.1
Health insurance		
Government financial support	6	54.5
Universal coverage scheme	4	36.4
Social health insurance	1	9.1

Symptoms of CAD including chest pain/chest discomfort, dyspnea/shortness of breath, fatigue/weakness, inability to lie flat, sweating/diaphoresis, fainting, and back tightness were reported from informants. Before coronary angiogram (CAG) was performed, all informants had the New York Heart Association (NYHA) class II (slight limitation of physical activity and comfortable at rest, but ordinary physical activity results in tiredness, heart palpitations, or shortness of breath). Due to a prolonged waiting period, however, before CABG was performed, severity of disease of three of eleven had progressed from NYHA class II to NYHA class III (marked or noticeable limitations of physical activity and comfortable at rest, but less than ordinary physical activity causes tiredness, heart palpitations, or shortness of breath). In addition, before CAG eight informants reported with chest pain had the Canadian Cardiovascular Society (CCS) class II (slight limitation with angina only during vigorous physical activity). There were three of these eight informants who had progressed after CAG to CCS class III (marked limitation with angina during everyday living activities). Two class-shifted informants had proximal left anterior descending (LAD) disease. For disease diagnosis, eight of eleven informants were diagnosed with triple-vessel disease and proximal LAD involvement. Two of eleven were diagnosed with triple-vessel disease and no proximal LAD involvement. One informant was diagnosed with triple-vessel disease and left main disease. Ejection fraction ranged from 47.0 to 70.2 percent. Six of eleven has ejection fraction from 45.0 to 60.0 percent. All of them have two or more co-morbid disease, the three most co-morbid disease reported were dyslipidemia (n = 11), hypertension (n = 9), and diabetes (n = 6). Other co-morbid diseases were reported in Table 4-2. For the medication during wait period, all informants took antiplatelet agent and antilipemic agent, ten took nitrate, nine took beta blocker, six took antidiabetic agent, five took angiotensin II receptor antagonist, and three took diuretic. Five of eleven informants had experience of general surgery.

The duration of waiting for CABG ranged from 69 – 757 days (2 years 27 days). Six informants had their surgery schedule postponed during awaiting period. Four of six informants had surgery postponed one time due to the arrival of more severe patients and lack of space in the intensive-care unit. Two of six informants had surgery postponed two times due to the arrival of more severe patients, having anemia, and having hemorrhoidectomy. By the way, one informant experienced twice readmissions during the wait time caused by congestive heart failure and further progression of myocardial infarction resulted in ahead of surgery schedule. A summary of the health-related characteristics of informants was presented in Table 4-2.

Table 4-2

Summary of the Health-related Characteristics of Informants (n = 11)

Characteristics	n	Percentage
Symptoms during waiting period*		
Dyspnea/shortness of breath	9	81.8
Chest pain/chest discomfort	8	72.7
Fatigue/Weakness	8	72.7
Inability to lie flat	3	27.3
Sweating/diaphoresis	3	27.3
Fainting	3	27.3
Back tigntness	1	9.1
NYHA classification (Before CAG → at surgery time)	11	
Class II (no change)	8	72.7
Class II → Class III	3	27.3
CCS classification (Before CAG → at surgery time)	8	
Class II (no change)	5	62.5
Class II → Class III	3	37.5
Diagnosis		
3-vessel disease and proximal LAD involvement	8	72.7
3-vessel disease, no proximal LAD involvement	2	18.2
3-vessel disease and left main disease	1	9.1
Ejection Fraction (%) (range = 47.0 – 70.2)		
45 - 60	6	54.5
> 60	5	45.5

Note: NYHA = New York Heart Association, CAG = Coronary angiogram,

CCS = Canadian Cardiovascular Society, LAD = Left anterior descending

Table 4-2 (Continued)

Summary of the Health-related Characteristics of Informants (n = 11)

Characteristics	n	Percentage
Co-morbid disease*		
Dyslipidemia	11	100.0
Hypertension	9	81.8
Diabetes	6	54.5
Gastritis	2	18.2
Anemia	2	18.2
Gallstone	1	9.1
Asthma	1	9.1
Hypothyroidism	1	9.1
Congestive heart failure	1	9.1
Gouty arthritis	1	9.1
End state renal disease	1	9.1
Medication during waiting period**		
Antiplatelet agent	11	100.0
Antilipemic agent	11	100.0
Nitrate	10	90.9
Beta-blocker	9	81.8
Angiotensin II receptor antagonist	5	45.5
Antidiabetic agent	6	54.4
Diuretic	3	27.3

*Informants reported more than one disease, **Informants took more than one type

Table 4-2 (Continued)

Summary of the Health-related Characteristics of Informants (n = 11)

Characteristics	n	Percentage
History of Surgery		
No	6	54.5
Yes	5	45.5
Waiting time (days) (range = 69 – 757)		
< 90	2	18.2
91 - 180	5	45.5
181 – 270	3	27.3
> 270	1	9.1
Postponement of surgery schedule		
No	5	45.5
Yes	6	54.5
Readmission		
No	10	90.9
Yes	1	9.1
Ahead of surgery schedule		
No	10	90.9
Yes	1	9.1

Part 2: The Experience of Persons Awaiting CABG

Uncertainty of Life

The experiences of the informants were categorized into the major theme "Uncertainty of life". The theoretical flow chart (Figure 1) and the explanations related to this theme are presented below.

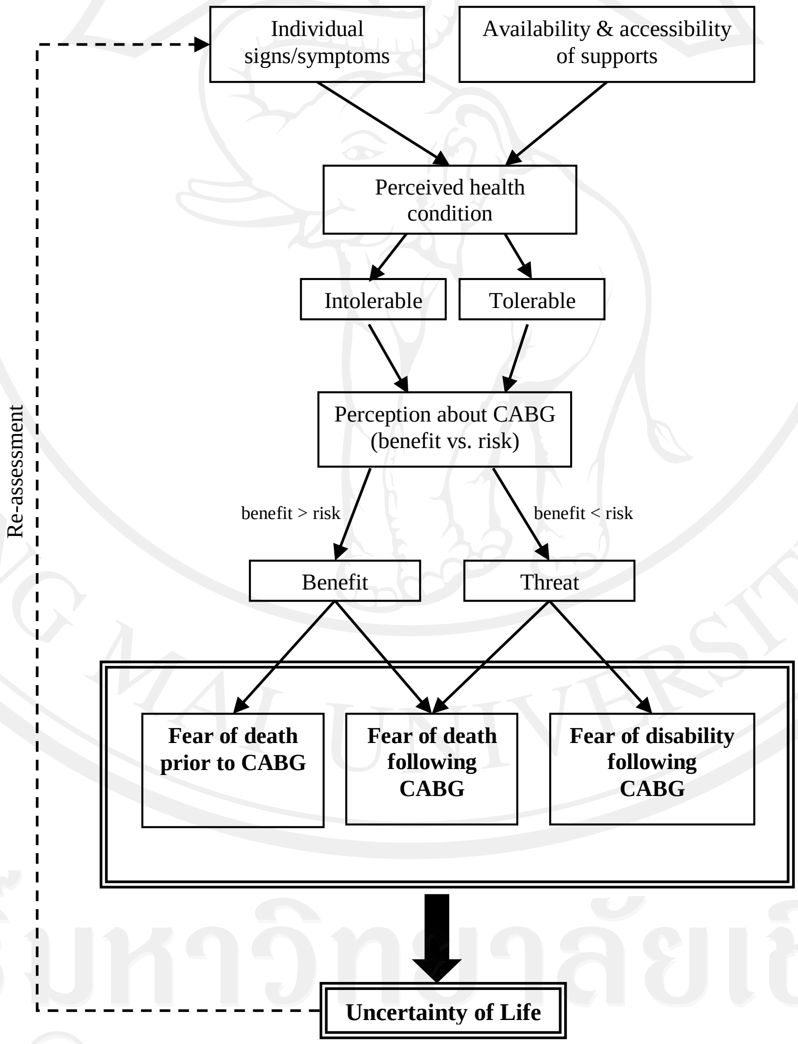

Figure 4-1: Thematic Analysis Flowchart of Uncertainty of Life While Awaiting CABG

The uncertainty of life was the informant's emotional state of unsure or insecure in life while awaiting CABG. The emotional state could depend on the informant's situation or context. The situation or context included 1) the informants' perceptions of their own health conditions and 2) the availability and accessibility of supports. The former related to informant's perception of signs and symptoms of CAD while awaiting CABG which could be individually different and changeable. This led to the difference in perception of health condition for each informant. Some informants might perceive that it was intolerable, whilst some might perceive that it was tolerable. The differences of informants' perceptions of their health conditions led to the perception about CABG either as a beneficial way for relieving present symptoms or as a risk to death and disability. The latter, the availability and accessibility of supports, was the context which the participant gained support from family, friends, close relatives, and healthcare providers. Like the perception of health condition, the availability and accessibility of supports can influence perception of CABG as a benefit or a threat as well. However, as the signs and symptoms could be changed during the wait period, each informant may reassess his/her symptoms that can produce a change of his/her reflection towards the uncertainty of life (indicated by the dashed arrow in the Fig.1). In this study, uncertainty of life was derived from fear of death and fear of disability.

Fear of Death

Fear of death was the informants' unpleasant feeling regarding death while awaiting CABG. In this study, there were two kinds of the feeling fear of death expressed by the informants: the fear of death following the CABG surgery and the fear of death due to their illness prior to surgery. These two kinds of the fear of death depended upon the perception of informants' health conditions while awaiting CABG. The manifestation of CAD symptoms which included chest pain, dyspnea, and fatigue during their activities of daily living impacted directly on the informants' perceptions. Therefore, this perception is dynamic and changeable up to their current health condition.

Regarding the fear of death following the CABG surgery, when the frequency and severity of symptoms were less, tolerable, and controllable with prescribed drugs and self management, the informants then perceived CABG as more of a risk to their lives than a benefit. In other words, they perceived that living with symptoms while awaiting CABG was a less life threatening situation than undergoing surgery. For this reason, when they learned they must have CABG surgery, uncertain of life, specifically the fear of death from possible complications of CABG surgery was felt. This informant expressed her feeling of fear of death following the CABG surgery as follows:

> I fear of how the operation might be. The doctor told me, it was a fifty to fifty risk between survival and death. The surgery might cause non-stop bleeding which could cause death … I might die. (P4)

The informant's daughter confirmed that her mom evidently revealed the fear of death following surgery once being told by the doctor about the possibility of death following the CABG surgery. The informant told her daughter that she did not want to die soon as she could see her grandchildren growing up and achieving their dreams first. The informant's daughter stated as follows:

> The doctor told my mom about her need of heart surgery and the risk of death following the surgery she might face. After that, she couldn't stop thinking and worrying about her chance of death. She told me she was afraid to die. She felt fear of not being able to see her grandchildren growing up and to accompany them to their success. (C4)

One of six informants whose CABG surgery was postponed described his tolerable chest pain was controllable by self management and prescribed drug. This informant admitted that he feared of death following the CABG when he learned he must have an inevitable surgery. The informant also reflected that he was glad when the nurse called him and informed that his first schedule surgery was postponed. He expressed as follows:

> When I first learned from the doctor that I had to have heart surgery. I admitted I was scared … I feared death. I have many friends, brothers and sisters. I was afraid; I might be the first one to dies in the family. I feared not waking up…dying. I refused heart surgery because I was scared. Firstly, I feared not waking up. Secondly, I love fun and enjoy life. If I die, I might not have good times with friends anymore. This caused me great fear … I was glad …glad when my first scheduled surgery was postponed. It is true, when I got the phone call about the postponed operation. I was very pleased and happy. It was true because I was afraid of death. (P5)

His wife also provided the information about her husband's fear of death following the CABG surgery. She told that he always enjoys his life with family and friends. But since he knew that he must have the CABG surgery, he admitted that he was fear of death following the surgery. He felt relieved when he knew that his surgery was postponed. The supplemented informant stated as follows:

> My husband admitted to me that after the moment he knew he must undergo the surgery, he was in great fear of death from the surgery. Usually, he is a fun person. He loves his family and his friend very much. That's why he said he didn't want to die now. He told me that he felt so much relief knowing his surgery was postponed. (C5)

To summarize, if the informants perceived that they had tolerable or controllable signs and symptoms of CAD, they would perceive CABG surgery as the greater risk to their lives than the risk from living with symptoms. This led them to the sense of fear of death following CABG surgery and uncertain about their lives.

Regarding the fear of death due to their illness prior to surgery, this study found that when the informants perceived the progressive in severity and could not tolerate with uncontrollable signs and symptoms, they viewed CABG surgery differently. The informants then perceived that undergoing CABG surgery was more of a benefit than a risk to their lives. In other words, they considered living with symptoms as more life-threatening than undergoing surgery. They wondered whether they would sustain CAD-related complications or live long enough to have surgery. Thus, the informants feared of death due to their illness prior to surgery, which also caused the feeling of uncertainty of life.

During wait time, some informants reported that their CAD symptoms were worsening. Three informants had the evidence of change in their NYHA classification from class II to class III. Note that the class II refers to slight limitations of physical activity and comfortable at rest, but ordinary physical activity results in tiredness, heart palpitations, or shortness of breath. The class III refers to marked or noticeable limitations of physical activity and comfortable at rest, but less than ordinary physical activity causes tiredness, heart palpitations, or shortness of breath. The informants described that the severity and frequency of chest pain, dyspnea, and fatigue were increased and caused them inability to perform activities of daily living and to work. They emphasized that these above symptoms caused suffering which they could not tolerate. The informants expressed their experiences as follows.

> I wanted to do some work, but I couldn't. I was exhausted. The exhaustion made me unable to work. I couldn't even pick up the things that had fallen on the floor. I was so tired and weak, I couldn't do anything. Exactly, I couldn't work. After only ten to twenty steps of moving my legs, I felt fatigue. (P2)

> While waiting for the operation, my symptoms and illness worsened. The chest pain and tightening of the back caused suffering to me. During the night, I couldn't sleep whether I was in a sitting or lying position. I couldn't sleep. It was the worst suffering I experienced…It really was. I thought I couldn't tolerate it. I couldn't live with it. That's why I must have the operation. … For example, taking a bath, I had to sit on the chair while taking a bath instead of standing. Otherwise, I felt fatigue and tightening of my chest and back. (P4)

> Lately, the pain hasn't been here (he pointed his finger at the middle part of his chest), but it was painful at the heart. The pain was continuously on and off, but the severity and frequency were increased. In taking a bath by using a bowl to quickly dip up the water and pour it on my body or hair, I had to stop because of chest and heart pain, and difficulty in breathing. … At night, I couldn't lie flat. I had to sit up and sleep, otherwise, I couldn't breathe. (P5)

The increase in amount of taking medication for controlling chest pain was reported by the informants as a reflection of the severity of CAD. Two informants whose chest pain were usually controllable by one tablet of nitroglycerine sublingually described about an increasing severity of chest pain which could not be controlled by the usual dose of prescribed drug, but needed an increased dose to relieve this symptom. The informants stated as follows.

> The doctor who took care of me in the hospital told me to take a prescribed drug one…two…three tablets to relieve chest pain. If three tablets didn't work in relieving pain, I would have to go to see the doctor at the hospital. Usually, my chest pain was relieved by only one tablet. Lately, the severity was increased, and three tablets could not help. I then rushed to see the doctor. (P4)

> Formerly, only one tablet of prescribed drug helped (to relieve chest pain). Lately, I had to take three of them, and it was finally relieved. (P8)

The above evidence showed that the informants suffered from the worsening symptoms of CAD while awaiting CABG. Some informants, therefore; felt like they could not wait for the operation since the long of wait time, and the progressive in severity and uncontrollable symptoms made them fear of death due to their illness prior to surgery. The informants reflected on their fear of death as follows:

> I really feared … feared my severe uncontrollable symptoms. It took a long time to wait in the queue for the operation. I was scared I would not receive surgery in time. I was afraid of dying of a heart attack before getting the operation. (P1)

> I started to be worried about the two months of waiting for the operation. What if while waiting I got a heart attack. I sat down and thought of waiting too long, what to do if I died before the operation. I fear wouldn't receive the surgery in time. (P6)

These were supported by the information from one of the supplemented informants. She told that her mom experienced more severe chest pain and dyspnea while awaiting CABG and her surgery date was postponed due to having the more severe patients. Consequently, her mom was afraid of death due to the worsening symptoms prior to CABG surgery. This supplemented informant stated as follows:

> During the last few days of waiting for the surgery, my mom complained that she felt tired very quickly and often had chest pain. She got to control these symptoms by taking drugs. Besides, her surgery was postponed since there were more severe heart patients who urgently need surgery. So she was afraid she could die before her day of surgery. (C1)

In summary, while awaiting CABG, the informants who had intolerable signs and symptoms perceived that living with these symptoms was a more life-threatening situation than undergoing CABG surgery. They then interpreted that CABG surgery would be more of a benefit to their lives. Hence, these informants had a fear of death from the disease prior to surgery followed by the uncertainty about their lives.

Informants' data also showed the dynamic of uncertainty caused by the fear of death. Since the wait time was quite long and the progression of their CAD was still active, some informants experienced the worsening of their health condition. The informants, who previously perceived their symptoms as tolerable or who used to control their symptoms with self-management and/or prescribed drugs, then changed their feeling of fear of death following surgery to the feeling of fear of death from disease prior to surgery. These informants revealed that the severity of symptoms of CAD caused intolerability and suffering to them. Two informants reflected the dynamic of the fear of death as follow:

> At first, I admitted that I feared about dying following the operation. After waiting for the operation for a month, my symptoms and illness worsened. The chest pain and tightening of the back caused suffering to me. During the night, I couldn't sleep whether I was in a sitting or lying position … It was the worst suffering I experienced … It really was. I couldn't tolerate and live with it. I thought I must have the operation otherwise I might die before the operation. (P4)

> When I learned that I must have the heart surgery, I was afraid of dying following the operation. At that time my symptoms were tolerable … I felt like my health had deteriorated, while waiting for an operation about a month. I wanted to do some work, but I couldn't. I was exhausted. I couldn't even pick up the things that had fallen on the floor. Only ten to twenty steps of moving my legs, I felt fatigue. Those intolerable symptoms made me think about death before the operation. (P2)

A wife of one informant explained about the changing kinds of fear of death while awaiting the CABG surgery of her husband. She told that at first when her husband knew that he must have the CABG surgery he felt fear of death following CABG surgery. Since the waiting time was quite long and her husband's CAD symptoms worsened, then, her husband feared that he might die before surgery. She stated as follows:

> After my husband knowing he needed a heart surgery, he told that he was feeling fear of death since there is a risk of dying at the surgery. At the beginning he felt reluctant to have the surgery. But during a long waiting time for his surgery, he had difficulty breathing and he could not lie flat. So my husband started to worry whether he would survive before the surgery arrives. (C2)

Besides, the perception of health conditions, the informants in this study explained that the fear of death also relied on the availability and accessibility of supports. Supports for the informants came from family, friends, close relatives, healthcare providers, and experienced persons who have undergone CABG surgery. All information received through the internet and magazines was also included. All of these influenced the informants' perceptions as to whether CABG surgery would be a benefit or a threat to their lives.

The informants explained their experiences in obtaining information from the physicians and healthcare providers. After the procedure of angiogram was performed and found three or more obstructed coronary arteries which treatment by balloon and stent were not possible, the informants were immediately given information about CABG as the only treatment available. The risk associated with the surgery and the possible complications were also informed. Some informants said the physician did not assure them a hundred percent of safety from CABG surgery due to the fact that one possible risk or complication of surgery might include non-stop bleeding which cause them death. This obtained information caused the informants to begin to fear of death following CABG surgery. They perceived CABG surgery as a threat to their lives because it might cause death. One of the informants reflected her feelings as follows:

> I was scared … scared of how the operation might be. The doctor told me; it was a fifty to fifty risk of life or death. He said the surgery might cause non-stop bleeding which could cause death … and I might die. (P4)

The experiences from friends or persons close to the informants were reported as another source of feeling fear of death and uncertain about life. Two informants in this study reported their experiences of hearing negative information relating the death of his cousin and a relative of his friend following CABG surgery. With the combination of negative indirect experiences from others and the risks from the surgery as told by the physician, the informants felt fear of the death. The negative indirect experiences regarding their friends' relatives dying from CABG surgery also made the informants hesitant, not want to undergo this operation. The informants admitted that they felt unsure about their lives because of the fear of death following CABG surgery. Two informants clearly expressed their fear of death resulted from hearing negative information as follows.

> I feared … feared of death. My cousin who lived in Bangkok went to the hospital for the operation. He died five to six months after the operation. (P2)

> My friend in our football team told me that his father died three days after the operation. He emphasized that his father walked to the hospital to get the heart surgery and returned home as a dead body. He also told me to think carefully about the operation. It was fifty to fifty risk of death or life. That caused me fear. I had to think it over … I feared of death. (P5)

One of supplemented informants provided the information supported that her husband feared of death following the surgery from obtaining negative information from his friend. She stated as follows:

> My husband has many friends and he usually goes playing football with his friends. One day a friend told him at the football field about his father being died from the heart surgery. Before the surgery his friend's father was able to walk, but after the surgery his health condition was getting worse and he later died in the hospital. That story brings up fear of dying from surgery to my husband. (C5)

Hearing information from healthcare provider, relatives, or close friends as well as self-seeking information also caused the feeling fear of death prior to the surgery. For example, there was one informant who graduated with a bachelor degree and his wife worked as a healthcare provider. His experience was different. This informant became interested in seeking knowledge and understanding by searching the internet, reading books/magazines about CABG surgery, or reading guidelines for self practice. He also sought information about the surgery from close friends and allied health personnel. He obtained information regarding CABG surgery from persons who had successfully undergone CABG. At the same time he also sought information from relatives of persons who died following CABG surgery. This informant obtained both positive and negative information about CABG surgery and weighed them against each other. He then decided to have CABG surgery as it was more beneficial to his life. This informant had to wait for 69 days which seemed too long to him. He felt fearful as to whether he would survive until the exact date of CABG surgery. The informant described about the multi-sources of obtained information and his feeling of fear of death as to whether he would receive the CABG surgery in time.

> I learned from the internet and books. I read all the guideline for self-practice before and after the operation. I did everything possible, searching the Internet, asking the doctor, and persons who had successfully undergone heart surgery. I learned that I might still be alive after the operation. It really helped my moral support. I also asked the relatives of persons who died during the operation. They told me that the possibility of death might have arisen from the co-morbid diseases such as hypertension and so on. At that time, I thought that the operation was more beneficial to my possibility of living. I, then, decided to get the operation … but when I waited for a while, I started to be worried about the two months of waiting for the operation what if I got a heart attack while waiting? I sat down and thought of waiting too long, what to do if I died before the operation? I feared I wouldn't receive surgery in time. (P6)

This information was confirmed by his wife. She told that her husband tried to seek for information about the CABG surgery from various sources. As a result, he learned that the longer period of waiting for CABG could cause more severe symptoms or even death to him before surgery. She described as follows:

> During the waiting period, my husband tried to gather and search for related information about the surgery from doctors, patients, books, or internet. The more he learned the more he realized that the delay of the surgery could make

> his heart disease symptoms progress and he could die due to the prolonged illness. As such, he told me he felt he would die before the surgery date. (C6)

In summary, fear of death was meaningfully reflected by the informants as experiences of a disturbing feeling of apprehension regarding the situation they faced. This apprehension made them feels unsure as to whether they could survive or die from CABG surgery. This fear of death derived from their perception which was changeable depending on each individual's situation, condition, and time. In this study, persons awaiting CABG perceived their health condition through the signs and symptoms of CAD which were chest pain, dyspnea, fatigue and/or weakness. When these symptoms were tolerable or controllable, they then perceived that living with symptoms was a less life threatening situation than undergoing CABG surgery. Thus, these informants feared of death from the surgery. But, when the signs and symptoms of CAD were intolerable or uncontrollable, and caused continual suffering to them, the informants perceived that living with symptoms was more life threatening than undergoing CABG surgery. Moreover, the availability and accessibility of support regarding CABG surgery from family, relatives, close friends, healthcare provider, and knowledge found through the internet, reading books, and asking the information from persons who experienced successful CABG surgery also influenced the fear of death. The fact about hearing risks of CABG surgery given by healthcare providers and also information about death following CABG surgery from friends' relatives influenced the perceptions of the informants which led into the feeling fear of death either from CABG surgery or prior to CABG surgery. This led to a feeling uncertain about life.

Fear of Disability

Disability is another possible risk that might happen to the persons undergoing CABG surgery. The strong concerns about decrease in ability or a total inability of physical function in performing activities of daily living were mentioned by informants. They feared that they would be unable to perform ordinary physical activities they used to do anymore. The disability of physical function might be the result from CABG surgery. In this study, the informants who had symptoms which were non-progressive in severity which could be controlled by prescribed drugs and self management perceived CABG surgery not only a risk of death but also as a risk of disability. This was another basis that they perceived no benefit from CABG surgery to their lives. The informants perceived that living with symptoms was less life threatening than undergoing CABG surgery. For this reason, when the informants were informed by the physician that they must have inevitable CABG surgery, they felt uncertainty about their lives stemming from the fear of disability. One informant expressed her feelings of fear of becoming disabled as follows:

> I feared … feared how the operation might be. The doctor told me; it was a fifty to fifty risk as to survival. He also said the surgery might cause me unable to walk again. I then was afraid. I didn't want to undergo heart surgery. (P4)

Another informant who lived with his wife and relatives, he played football regularly. He was active and very social in characteristic. When he learned he had to have inevitable CABG surgery, he felt that the manifestation of chest pain was not progressive in severity. It was controllable with resting and one tablet of nitroglycerine sublingually. He perceived that undergoing CABG surgery was more life threatening than living with symptoms of CAD. He reflected feeling fear of being disabled in physical functions that was inability to walk and/or to do activities of daily living following CABG surgery. He emphasized he did not want to be a burden to his family and relatives. He expressed his feelings regarding this fear of disability as follows:

> I had chest pain while playing football, but it was improved by immediately taking a rest or one tablet of prescribed drug sublingually. I feared … feared about being disabled from the operation. I was afraid it wouldn't come out as usual. I feared that I couldn't walk or do whatever I usually do. My relatives might be obligated to take care of me. (P5)

The information about fear of disability was confirmed by one of the supplemented informants. She explained that her mom feared of disability following the CABG surgery and worried of being a burden on family when the doctor told her about the risk of disability following CABG surgery. The supplemented informant stated as follows:

> My mother told me she was concerned about being unable to walk or being unable to perform her daily routines after the heart surgery. "It is a fifty to fifty chance and I don't want to be a cripple" she said. She didn't want to be a burden to our family. (C5)

Receiving information about possible risks and/or complications of CABG surgery from close friend's relatives was a cause of the fear of disability following the surgery. One informant got information from close friend about a decreased in ability to function and complications which cause an inability to work as outcomes of CABG surgery. He recalled his fear of being disabled as follows:

> I feared the operation. My friend told me that his ability to function was decreased from hundred percent to seventy or eighty percent. He also emphasized that some persons had complications which caused them to be unable to work. So, I was scared. (P2)

His wife also provided the information related to his fear of disability. She explained that her husband received the information from his friend about the complications of CABG surgery which could cause the loss of functional ability and even an inability to work. Therefore, he feared of disability following CABG. The supplemented informants indicated as follows:

> My husband was told by his friend about the after-effects and complications following the heart surgery which can reduce physical performance and functional ability. So my husband was worried that he will be unable to work anymore after the surgery. (C2)

In summary, while awaiting CABG, the informants' fear of becoming disabled was the result of individual perceptions of their health conditions and the information obtained from healthcare providers, relatives, and friends regarding the facts of possible risks and complications of CABG surgery. All of these factors influenced the occurrence of fear which led to the informants feeling uncertain about life.

It is evident that wait period for CABG surgery was recognized as a time involved with informants' uncertainty about life complicated by a growing of fear of death prior to surgery, and fear of death from surgery as well as a fear of disability following CABG surgery. The informants' feeling of uncertainty about life stemmed from being unsure of the safety of the operation and how long their lives might be, or being unsure of the risks of surviving the operation or surviving with a disability. The fearfulness about being a burden for relatives to care for and, the biggest of all, the chance of losing their life from the operation results in informant's psychological distress.

Part 3: The Management of Persons Awaiting CABG

The management of persons awaiting CABG is precious and important. The better the management while waiting, the lesser the complications and the better the health following the operation. The findings revealed that the management of persons awaiting CABG comprised a major theme that is "Striving to balance well-being". The descriptions of theme including quotes from the in-depth interviews which provided a way to understand the management of persons awaiting CABG are presented in the following section.

Striving to Balance Well-being

While awaiting CABG, the well-being of persons is the most important and it is of great value for their lives. The well-being is a multi-dimensional state that incorporates physical, psychological, and spiritual aspects of the person. It is the most desirable state of persons during illness. An endeavor to harmonize individual body, mind, and spirit, termed as striving to balance well-being, is crucial for resolving uncertainty and achieving a sense of stability.

The uncertainty of life is considered a barrier for achieving well-being. As mentioned earlier, the informants felt that the wait time for CABG was a time of uncertainty complicated by a growing of fear of death and/or fear of disability. This uncertain feeling was spurred by the perception of health conditions, perception about CABG surgery as either a risk or a benefit, the obtained information about the surgical consequences from physician, and the obtained information from friends or persons close to them. Under the feeling of uncertainty of life, the informants in this study described that they attempted to balance well-being by putting efforts in all of their activities. Some informants reach their spiritual well-being by building hope through rituals which gained confidence about the satisfactory outcome from CABG surgery. Striving to balance well-being consisted of four categories including managing symptoms, intensively lifestyle modification, building hope through rituals, and managing unfinished business.

Managing symptoms

Managing the symptoms and illness of persons was the most important issue for maintaining their well-being while waiting for the CABG surgery. Managing the symptoms was adopted by the informants as a strategy, being obtained and sought from the healthcare provider, book, internet, or from their own experiences, to relieve their physical distressed symptoms and to promote physical comfort while awaiting CABG. They shared how they managed and coped with their distress symptoms that were severe chest pain, dyspnea and/or fatigue, and inability to lie flat. The informants explained that through the symptom management it helped them counterbalance threat to their lives, relieve symptoms, and promote physical comfort which brought them to the state of balanced well-being. The informants shared strategies of symptom management which were based upon the healthcare providers' advice and self-experience in order to relieve symptoms and promote comfort while awaiting CABG as follows:

Managing chest pain. Eight informants in this study reported chest pain while awaiting CABG. The informants explained that chest pain usually occurred while performing the activities of daily living or work. The management they used to relieve this distress symptom was to stop doing the activities for a while. For example, if it occurred while they were walking, they stopped walking and sat down. Two informants described the use of resting as the primary management for chest pain as follows:

> If I got chest pain while walking, I sat down for a while until symptom disappeared. (P4)

> While playing football, I usually had chest pain. I would then stop playing it for a while until I felt better. (P5)

The informant's daughter provided the information to support that her mother basically used resting as a way to manage her chest pain. She stated as follows:

> While waiting for her heart surgery, I noticed that whenever my mother had chest pain she would stop her activity right away. She'd rather sit down for a while. However, it worked well she had a mild chest pain. (C4)

Then, if the informants did not feel better, they would manage this symptom by prescribed drug sublingually. The informants realized the importance of strictly adhering to the drug regimen because they received useful information about how to manage this drug from the healthcare providers. They described that if they had severe chest pain uncontrolled by resting they would take the prescribed drug sublingually, specifically nitroglycerine. This inotropic drug effectively reduced suffering symptom of chest pain and also enhanced their comfort and well-being during wait period. However, some informants reported an increase in the amount of nitroglycerine from one tablet to three tablets to relieve their chest pain. Three informants explained the following.

> While I was awaiting an operation, the symptom of the disease was more and more severe. My chest and back were tightened and I felt great discomfort. The doctor told me how to manage prescribed drugs by taking one tablet of the prescribed drug sublingually to relieve chest pain. If the pain persisted, I would take a second and then third tablet gradually. At first, I took only one tablet and I felt better, but later on my chest pain was more severe. It didn't work with one tablet of prescribed drug sublingually so I had to take three. (P4)

> The doctor told me that if I had chest pain, I could take a tablet of the prescribed drug sublingually. Therefore, I followed his instruction. Every time when I had severe chest pain, I took a tablet of the prescribed drug sublingually. After taking it, I felt better. (P5)

> I take care of myself by strictly following the doctor's prescribed drugs. I always take the right drug, the right dose, and at the right time. I never stop taking the drugs without the permission of the doctor... Formerly, my chest pain was eased with only one tablet of the prescribed drug sublingually. It relieved my chest pain. Soon after, I had to take three of them to control my chest pain. (P8)

The informant's son confirmed that when his mother had chest pain which is uncontrollable by resting, she used the prescribed drug sublingually to control this symptom. He noticed that her mother increased the amount of prescribed drug gradually, from one to three tablets. He described the following:

> When sitting or resting is not an option to resolve her chest pain, I saw my mother using the prescribed drug sublingually to relieve her chest pain. She increased her use of the drug. At the beginning she took only one tablet each time and later she had to take three tablets each time. (C8)

The back tightness (a chest pain-like symptom) was also reported by one informant who also had gastritis. She described that this symptom occurred every time with the accompanying chest pain. To manage this symptom, she reported using the pressure from both hands of the caregiver or relative to press on her left scapular and simultaneously massage her back. It facilitated the eructation of the air out from the stomach. She explained that after using this strategy she felt much better.

> I usually had back tightness along with chest pain. To promote comfort while I had this symptom, my nephew helped me by pushing on my back. It helped force the air out from the stomach. I felt much better. (P4)

The informant's daughter also confirmed this information. She described that when her mother has back tightness she usually asked her nephew to massage her back using both of his hands. After use this strategy she became better. The daughter stated the following:

> Anytime my mom felt back tightness, she asked her nephew to gently massage her back. She said massaging could help expel gas and relieve her tightness. (C4)

Managing dyspnea and/or fatigue. Dyspnea and/or fatigue were common disturbing symptoms of CAD which needed proper management while awaiting CABG. In this study, some informants reported having such symptoms which caused them suffering and it interfered with their activities of daily living. The informants recognized their dyspnea and/or fatigue management as the way to relieve the distress and suffering from uncomfortable sensation of breathing and weakness. They revealed that the strategies they used to manage these distress symptoms were resting for a while until the symptoms disappeared. They also reported that turning on an electric fan to provide better air ventilation helped. In addition to these strategies, using a cold compression in combination with resting relieved the heat and provided more comfort for the informants. They reflected their experiences of managing dyspnea and/or fatigue as follows:

> If I got too tired or exhausted, I would rest at once. It helped me recover in 15 minutes. Using the fan, to promote air ventilation helped my comfort level. (P2)

> Mostly, I prepared cool small towels by putting them into the refrigerator. I used them with the fan to relieve my discomfort from the feeling of dyspnea. (P3)

> If I got dyspnea after walking, I would sit down for a while until symptoms disappeared. …Turning on the fan also helped. I felt much better after doing this. (P4)

The informant's wife confirmed that during waiting for the CABG surgery her husband managed his dyspnea by resting and turning on an electric fan. She noticed that her husband felt much better after using these methods. She stated as follows:

> While waiting for his surgery, my husband experienced shortness of breath and got tired very easily. When he had this symptom, he turned on an electric fan to increase airflow in a room. I observed that within a few minutes after he turned on the fan, his symptom began to disappear. (C2)

Besides dyspnea and fatigue, the informants also reported the inability to lie flat while waiting for CABG. The informants noticed that their inability to lie flat was manifested and accompanied by dyspnea. Therefore the management of the inability to lie flat helped them to decrease the dyspnea symptom and to enhance comfort. Based on the healthcare providers' advice and self-experience, the informants used at least 2 pillows or blankets, placing them one upon another to reduce dyspnea while sleeping. Positioning themselves with a 45 degree angle head up, or right laterally, or sitting and lying alternately facilitated better rest and sleep patterns. The informants explained that using such symptom management strategy had reduced the discomfort and the pressure on the heart, which helped them feel comfortable. Two informants reflected this management strategy as follows:

> I couldn't lie flat because my heart feels so heavy. I sometimes lay laterally. I would feel much more comfortable if I laid my head down on 2-3 pillows placed on top of one another. (P2)

> Sometimes, I couldn't lie flat. I positioned myself with a 45 degree angle head up on the 2-3 blankets placed on top of another. I sometimes rested by sitting and lying alternately. (P5)

The informant's wife described that her husband had the inability to lie flat symptom during waiting for the CABG surgery. She told that her husband's effective methods to manage this symptom were positioning himself in the upright position by using blankets and sitting and lying alternately. She stated the following:

> While waiting for the surgery, my husband had trouble lying flat during a night time. It prevented him from sleeping. He coped with this problem by using folded blankets to backing up his head before sleeping. Sometimes he got to alternately sit and lie on the bed. He said these two methods could help him sleep at night. (C5)

Managing symptoms is one way to achieve physical well-being. Once the persons knew how to manage and control the distress symptoms related to CAD, the symptoms were perceived as being controllable. With this reason, the feeling of uncertainty of life of informants was less.

Lifestyle Modification

Lifestyle modification of persons awaiting CABG is necessary and vital. As it is a proactive approach towards optimum health and wellness accomplished by bringing about appropriate changes. Due to the limitation of physical function which was caused by the distress symptoms of CAD i.e. chest pain, dyspnea, and fatigue, persons awaiting CABG sought for a way of balancing their well-being. Based on the healthcare providers' advice, the informants attempted their lifestyle modification. They went through the experiences of lifestyle modification by the adjusting of the activities of daily living, strictly consuming a heart-healthy diet, and engaging in tolerable exercise.

Adjusting the activities of daily living. Adjusting the activities of daily living [ADL] was another management that persons awaiting CABG used for managing their symptoms. The limitation of physical function brought about by the progressiveness of uncontrollable disease caused the persons awaiting CABG to seek well-being. They explained that they were unable to do their usual activities because of the occurrence of chest pain, dyspnea/shortness of breath, fatigue/weakness, and fainting while doing those activities. In order to enhance their well-being, adjusting the ADL was characterized into two patterns. One pattern was reducing the amount of usual activities being performed. Since the activity was still needed to perform by the person, he/she had no choice but to reduce amount of the activity, to slow down the rate to perform activity, or even to prolong the period of the activity. The reduction of the strenuous activities gave them more comfort which led to well-being. One informant stated the cut down of his activities as follows:

> While I was awaiting the operation, I stayed at home without working. I tried to save myself by slowing down all activities and reducing my used energy from 100% to 70%. (P6)

The informant's wife provided the information supported that while awaiting the CABG surgery the informant adjusted his ADL by slowing down all activities and reducing the daily energy use. She described as follows:

> My husband was temporarily off from his duty while waiting for his heart surgery. He had to slow down on performing his daily activities, reduce his power putting on an activity, and avoid overexertion and strenuous activities. (C6)

The other pattern of adjusting was changing from activities used lots of strength to more tolerate activities. For example, individual could switch from hard work in the farm to simple work of household chores, cooking, etc. Changing to tolerate activities was done as evidenced by two informants.

> While waiting for operation, I did no more hard work in the farm. The hard work caused me to feel fatigue, exhaustion, and trembling. I switched from hard work to the light work which was household chore. I carefully thought before start working, I also asked myself could I do this kind of work or not? If I were the same as I used to be, I would work so hard in order to get pay. (P1)

> Before I knew that I had to have heart surgery, I could do many things such as washing a lot of dishes in the restaurant. I also worked as a waitress, but 3-4 months later I felt weak…I couldn't do it anymore. I then changed from doing those activities to sitting and preparing vegetables for cooking. (P4)

The informant's daughter explained about her mother's pattern of adjusting ADL. She told that her mother changed from activities which use lots of strength to more tolerate activities. In the past her mother worked in the farm, but after knowing the need of having the CABG surgery she switched to do light work at home. Her daughter stated as follows:

> Knowing that she had to undergo the heart surgery, my mother tried to change kinds of daily work she could do. She stopped working at the farm. Instead, she did lighter works at home. I also noted that before her doing anything she would first think if an activity is too much for her own strength or if she could do it or not. (C1)

Strictly Consuming a Heart-healthy diet. Strictly consuming a heart-healthy diet was one of the methods that persons awaiting CABG used to modify the lifestyle fitted to their illness. The informants realized the importance of their eating habits upon discovering that they were having uncontrolled CAD, warranting inevitable major heart surgery i.e. CABG. From the healthcare providers' advice, the informants considered the effect of consuming a healthy diet to control symptoms of CAD. Thus, realizing the importance of a heart-healthy diet and avoiding a heart-unhealthy diet were used by informants to enhance their well-being while waiting for CABG.

To realize the importance of a heart-healthy diet, the informants considered consuming a heart-healthy diet like low-fat food, high protein from fish and beans, and fruits and vegetables, etc during waiting for CABG. They recognized that these foods would help to lower cholesterol and the level of lipid in their blood vessels.

They learned that the lower the cholesterol, the better the blood circulation and the function of the heart. The informants also learned that they should eat more fruits and vegetables because these foods were good for their hearts and played an important role in maintaining effective body function. They found that eating fruits and vegetables especially improved the regularity of bowel movement, which indirectly reduced the stress of pushing down; hence these kinds of foods did help to maintain the heart function. In addition, the informants also consumed increasing amount of protein from beans and fish because of the lower fat in these foods compared with the high fat in meat. Four informants explained their experiences in consuming a heart-healthy diet as follows:

> While I was awaiting heart surgery, I ate fish, cereal, corn, mainly vegetables, few carbohydrate, and lots of protein from beans. It helped my bowel movement everyday. … I felt good and fresh. … I also used extra virgin olive oil for frying. I think the food we ate was absorbed into our blood stream. It helped lower cholesterol. (P6)

> When I found out that I had heart disease for which I needed to have heart surgery, the nurse gave me advice about how to maintain health and decrease the progression of the disease by using the advantage of changing eating habits. … I ate lots of vegetables because they are full of vitamins and minerals. All of this helps the body to function well. It also helps defecation. I now have no abdominal distention, no chest pain. Eating well really promotes comfort and health. I want to be cured, so that my heart can function well. (P4)

> I ate only rice and vegetables. … It helped to facilitate the defecation and also slowed down the progression of heart disease. (P2)

> Since I learned that I had to have heart surgery, I'm afraid of cholesterol. So now I don't eat high fat and starch. Instead, I eat lean meat, beans, and vegetables. I have an egg once a week, although some week I don't have any. By managing my food intake with good food, I have a normal level of blood cholesterol. I loss some weight and felt energetic. I have to tell you that in the past I used to eat a lot and never chose what was good to eat. (P1)

The informant's daughter provided the information to support that her mother modified her diet to a heart-healthy diet during the waiting time for CABG. She told that her mother consumed low-fat food, high protein from fish and beans, fruits, and vegetables. She stated the following:

> During the waiting for the surgery, my mother tried to eat food that is beneficial to the heart. She strictly ate high protein from fish and beans, vegetables, and fruits in order to prevent high cholesterol. (C1)

For avoiding of a heart-unhealthy diet during waiting for CABG, the informants changed the eating habit by avoiding high quantity of food that was harmful to the heart and their progression of CAD. For instance, they changed from eating sticky rice (a high carbohydrate diet which is a favorite food of northern Thai people.) to eating steamed rice (a low carbohydrate diet). They realized that an excess of calories in carbohydrates would eventually result in serum lipid, which causes the progression of the disease and might provoke their uncontrolled symptoms. In addition, the informants also changed their cooking style from frying to boiling or steaming because these styles would allow persons awaiting CABG to maintain a normal cholesterol level in the coronary arteries and to reduce their progression of the disease. Six informants explained their experiences of managing symptom by avoiding a heart-unhealthy diet which enhanced their well-being as follows:

> I am trying to reduce my high fat diet. It may help control the progression of my heart disease. (P2)

> Since I learned that I've got heart disease for which I needed to have heart surgery, I have tried to change my eating habit. In the past, I was a leader of women in our district. One of the jobs I had to do was to taste all foods and sweets that our group did for parties. I never thought about controlling my level of blood cholesterol. Nevertheless, I have now stopped eating coconut milk. I was afraid that the fat would accumulate on the wall of my blood vessels. I, therefore, have tried to avoid a fatty diet. I cook by myself, so in preparation of fried food I put only a little of vegetable oil. (P3)

> I chose to eat a small amount of pork to control my symptoms from heart disease. It helped when I ate like that. (P4)

> Since I learned that I had to have heart surgery, I changed my eating habits. I eat smaller amount of food. Usually, I love to eat Koa-Ka-Moo (boiled pork leg with steamed rice) and Koa-Mun-Kai (boiled chicken with steamed rice putting fat extracted from chicken and skin into rice) every 2 or 3 days. I decreased it to once a month. I don't eat egg, pork skin, and Kaki anymore. … I believe these changes help to stop the progression of the disease. (P5)

> Before, I loved to eat fatty diet like food cooked with coconut milk, Seafood, and Squid. All of them are the most favorite…as well as Kao-Ka-Moo, Koa-Mun-Kai etc. For ten years I went every meal to Seven-Eleven, the convenient store. I learned I stored high blood cholesterol in my blood vessels. On the day of 26th (the day I learned that I must have heart surgery), I immediately gave up everything I loved to eat. … I didn't eat pork or beef. … I understood that our body absorbed all what we ate into the blood stream. It ran through our heart. Therefore, the managing of food intake had an important role in decreasing cholesterol. (P6)

> I don't eat fatty food. I choose good things to eat…and eat more. I stopped eating grilled pork, Kao-Ka-Moo, Kao-Mun-Kai. I try to avoid eating them as much as I can. I realized that fatty food cause an obstruction of my blood vessels. (P8)

The informant's son told that his mother changed the eating habit while waiting for the CABG surgery by avoiding food that was harmful to the heart and the progression of CAD. He stated about his mother diet as follows:

> My mother tried not to eat any high-fat food considered as bad for the heart such as Koa-Ka-Moo and Koa-Mun-Kai. She was afraid that her blood fat level could rise and more fat could build up in her blood vessels. (C8)

Engaging in tolerable exercise. Exercise is important and necessary among persons awaiting CABG. The informants reported engaging in tolerable exercise as another activity they adjusted in their daily life habit while they were waiting for CABG. They realized the great value of exercise as: 1) it strengthened bodily functioning so as to maintain health and help with recovery after an operation; 2) it promoted rest and sleep patterns which helped balance their well-being; 3) it helped to decrease tension and anxiety; and 4) it burned energy and washed out obstructed coronary arteries. The informants explained that practicing proper and regular exercise which was tolerable before having surgery helped them stay away from chest pain, back pain, dyspnea, and weakness. They adjusted their exercise from the types that require a lot of strength to more moderate type of exercise. For example: one of the informants changed his exercise from sprinting or running with the highest speed while playing football, to running and resting alternately. In addition, the informants also lowered the amount of time they exercised to keep balancing of their well-being. Three informants described their experiences of engaging in tolerable exercise as follows.

> Actually, I practiced exercise for long time, but while I was waiting for CABG I only did what I could tolerate i.e. lifting both legs and arms up, clinching and extending the hands, leaning to the right and left of the neck, and bowing and extending the head. Exercise gives energy to the body. Otherwise I would have a feeling of heavy legs that I could hardly lift up, if I didn't exercise. (P3)

> Before the operation, I used to do Taikek exercise 3 times a week. I stopped doing Taikek for 3-4 months before the operation because I could not tolerate it. So, I started swinging both arms up and down about 400-500 times. It helped to promote my rest and sleep patterns. (P4)

> Before I discovered that I had heart disease, I played football everyday. After the explanation of the healthcare provider, I saved myself by decreasing my exercise from sprinting that caused chest pain to running and resting alternately. I believe that: First, exercise helps to burn energy. It may wash out obstructed arteries. Second, exercise helps to promote the strength and body function needed for the operation. Third, it also helps to recovery more quickly without the complications. And finally, exercise helps to decrease anxiety as well. (P5)

The supported information of the informant was congruence with her daughter. The daughter told that during waiting for CABG her mother usually did some simple stretching and tolerable exercises in order to regain energy in her body. She described the following:

> My mother enjoyed exercise during the waiting period for her surgery. She told me that she usually did some easy exercises such as stretching her arms and raising her arms or legs. She said that she felt refreshed and energized after her exercise. (C3)

To conclude, lifestyle modification can help informants awaiting CABG slow the progression of CAD. Modifying their lifestyle in a healthy manner can reduce the preventable risk factors influencing the future appearance of distress symptoms.

Building Hope through Rituals

Building hope can bringing comfort to the mind of informants who felt threatened by the fear of death or the fear of disability. It plays an important role of empowering will to survive and staying peaceful. Building hope for the informants was done based on belief in religious, supernatural or unforeseen power. In order to strive to balance well-being, the informants explained that they had built their hope of being alive by follow the Buddha's preach and performing rituals to the supernatural or unforeseen power for the better fulfillment. Religious rituals and performing meditation were the building hope management strategies that the informants performed while waiting for CABG.

The informants shared their experiences of building hope through religious rituals while waiting for CABG by spending parts of daily life to go to many temples and statues, paying respect and praying to the Buddha's image and supernatural power, making merit, giving offering, and obeying parents or listening to the wise. Performing all these religious rituals allowed them to remain hopeful in life, to be cheerful, sure that they would be cured from the inevitable disease, and be safe during the operation. They also hoped to stay happier and have longer lives. Four informants striving to balance their well-being by building hope through religious rituals said as follows.

> I put my hope in the Buddha to control and release me from tension and anxiety. I read many dharma books. Before having the operation, I went to many temples and statues to make merit i.e. Wat-U-Mong, Khru-Ba-Sriwichai. I also asked Khru-Ba-Sriwichai to save my life. I promised to come back after being cured. … It helped bring comfort to my mind (P4)

> Before I got an operation, I paid respect to Luang Poo Wan, the faithful priest, and Phraracha Bhida, the Father of King Bhumibol. I also told my priest that I would come back with 9 pieces of flowers to worship. I was told by many experienced persons who survived that King Taksin, the great spirit had supernatural power in saving lives and I should ask him to save me. I, therefore, prayed and asked him for help. I said if I was still alive, I would be back to worship him with 100 boiled-eggs. I want to be cured from coronary artery disease, to be saved from the operation and to live. Therefore, I found many ways just to make sure that I cold survive the disease. It gave me relief and brought comfort to my mind. (P5)

> My wife advised me to go and ask for help from Luang Poo Wan, Khruba Sriwichai, the faithful priests, and guardian spirit of the hospital. The other important place was Wat Phra Singha. I went there to walk with a lighted candle. I told the Buddha's image that this time it might be the only one time in my life as I was not sure I would have another chance to come again. But, if I got a chance to come back, the rest of my life, I promised, I would give up drinking all kind of alcohol. My mind was supported; I felt the touch of some supernatural power. (P6)

> I told the guardian spirit of the house. "Tomorrow, I'll go to stay in the hospital to have an operation. Please be kind and save my life, heal the wound, and let me have no complications." I said to him if I were back home for 3 months, I would feast them with boiled pig's head (Hua-Moo), but if I was alive only for a half month I would offer minced meat and sweets. (P8)

> Before I went to the hospital for my operation, I told the guardian spirit of the house, angel of the earth, and supernatural power to take care and save my house during my stay in the hospital. After doing this, I felt comfort. (P3)

The supplemented informants provided supported information about building hope through rituals as follows:

> While waiting for the heart surgery, my mother would read Dharma book at home. She also prayed to the Buddha every day. We went to pay respect to many temples together. Both of us would pray for her living and for a successful heart surgery. She felt better and calm. (C4)

> My husband had a very strong spiritual belief. He believed in something very sacred. If someone suggested him a spiritually revered place, he would go there whenever he had a chance. While waiting for his heart surgery, he had to work at Tak province. Knowing about his surgery, his friend recommended him to pay respect at the King Taksin Monument for the protection and a safe surgery. There are also many other sacred places that he went to. He said he felt relief and felt that all sacred spirits were there to help and to protect him. (C5)

Performing meditation was reported by the informants as the way of management to balance their well-being while waiting for CABG. The informants explained their performing meditation as an action of focusing the mind for a period of time in silence with the aid of religious chanting. They used meditation to release their fear and anxiety which occurred while they were awaiting CABG. The informants shared that performing meditation gave them wisdom in knowing themselves and the situations they were in. They explained that their beliefs in meditation gave them more peace of mind and more happiness in life from the inevitable disease. Two informants described performing meditation as follows.

> I meditated for an hour at a time. I paid respect to the Buddha and talked to the Buddha's image (Buddho, Namo, and so on). I was admitted in the hospital many times while waiting for heart surgery. During my stay in the hospital, I meditated all day and all night. (P4)

> I practiced meditation because I believe it settles ones mind and helps you feel in control. After practicing meditation I felt better. It empowered me to reduce both physical and mental problems. I found that my self-control system getting better. I had no palpitation, no more excitement even on the day of operation. (P6)

The informant's wife confirmed that during waiting for CABG her husband performed meditation every day. Her husband told her that meditation gave him a peaceful mind and helped him feel in control. She stated as follows:

> My husband meditated every day during waiting for the CABG. He said that meditation would help bring a clear, calm, and peaceful state to his mind. It also helped him to get better control of his thoughts and feelings. Sitting with meditation made him feel energetic, both physically and mentally, and feel ready to go through whatever event he had to face including this heart surgery. (C6)

In brief, performing rituals and meditation are the management methods to maintain the informants' spiritual well-being while awaiting CABG. The strong religious and spiritual beliefs allowed the informants to remain hopeful in life while performing meditation gives mental strength and peaceful mind.

Managing unfinished business

Persons awaiting CABG were very concerned about preparing themselves to be ready to face the possibility of death. The informants explained that they were worried about their families, relatives, properties, and all important or confidential documents etc. They believed leaving unfinished business behind might cause them unhappiness in life after death. They then dealt with their unfinished business such as making a last will and testament, looking over their insurance policies and properties, calling the relatives to come to see before getting the surgery etc. Four informants talked about their efforts to deal with unfinished business as follows.

> No more fear. I wrote a last will and testament to my wife. I accepted dying. My mind was empty. (P2)

> I wrote a last will and testament, and recorded all credit card numbers, documents, and my properties into my notebook. I told my wife if I die, what, and where she would get the money from. (P6)

> While I waited for heart surgery, my symptoms and illness worsened. I was worried. If I were to die, my kids would have to know all about of my properties. So I told them all about them. (P4)

> The day before my surgery, I called my brothers and sisters. They all came to see me before I went into the operative room. Although, I had no chance to talk with them, I felt comfort because it might have been the last time we would see each other. (P1)

One of the supplemented informants gave the information to support that her husband managed unfinished business and prepared everything for her and his child if he would have died following the surgery. She described the following:

> About one week before my husband's heart surgery, he brought a last will that he made to me. He also gave me his notebook with credit card numbers and passwords and all details of his properties. He said he already prepared it in case he would have died following the surgery. (C6)

In summary, managing the unfinished business is a way of management that allows the informants to communicate their wishes and concerns with their families. It helps the informants to ensure about all they leave behind and get ready for surgery.

Part 4: Discussion

The objectives of this study were to describe the experiences and the managements of persons awaiting CABG. Based on findings of this study, the experience of persons awaiting CABG was uncertainty of life. While theme of the managements derived from the findings was striving to balance well-being. The discussion of research findings with support for existing knowledge, and new contributions to knowledge from the current study findings are presented.

The Experiences of Persons Awaiting CABG

As described in the present study, the uncertainty of life was recognized by persons awaiting CABG. It was dynamic emotional state stemmed from the fear of death and fear of disability. The uncertainty of life depended on the informants' perception of their own health conditions or interpretation of their own situation, and the obtained information from healthcare providers, family, friends, and close relatives.

Fear of death was the informants' unpleasant feeling regarding death while awaiting CABG. The fear of death made them feel unsure as to whether they could survive or die. According to the findings of this study, there were two different kinds of fear of death including the fear of death following the CABG surgery and the fear of death due to their illness prior to surgery. These two kinds of fear of death depended upon the perceptions of the informants' health condition while awaiting CABG.

Persons awaiting CABG surgery perceived their health condition through the signs and symptoms of coronary artery disease (CAD) including chest pain, dyspnea, fatigue and/or weakness. When these symptoms were non-progressive in severity, tolerable and controllable, the informants then perceived that living with symptoms was a less life threatening situation than undergoing CABG surgery. Thus, they feared of death following the CABG surgery. But, when the signs and symptoms of CAD were progressive in severity, intolerable and uncontrollable, which caused continual suffering to them, the informants perceived that living with symptoms was more life threatening than undergoing CABG surgery. Hence, they feared of death due to their illness prior to surgery. In addition to their health condition, the availability and accessibility of support regarding CABG surgery from family, relatives, close friends, healthcare provider, and knowledge found from various sources of information also influenced the fear of death. The fact about risks of CABG surgery, which were given to the informants by healthcare providers, and also information about death following CABG surgery from friends' relatives affected the perception of the informants. This finding is supported by Banner, Miers, Clarke, and Albarran (2011) which reported that during waiting for CABG surgery the informants feared about the surgery and the potential surgical complications. And, the exchange information with friends, persons close to them, and persons who had undergone the CABG surgery impacted the feeling fear of death and led to a feeling uncertain about life. As the stages of CAD progressed, the severity of illness could be changed over time. The informants had to live with symptoms and limitations for long period. Therefore, the uncertainty of life is dynamic due to change in their perception of the heath condition based on the present severity of their illness.

For those informants who perceived their symptoms of CAD as non-progressive, tolerable, and controllable, the demographic characteristic analysis of the informants in this study revealed that three of eleven informants had no chest pain but had dyspnea and fatigue. Interestingly, it was found that all of those informants had a NYHA classification class II, and had a diabetes mellitus [DM] type II as a comorbid disease. DM type II is non-insulin dependent and it is a risk factor for CAD. According to Fang et al. (2010), asymptomatic myocardial ischemia (lack of chest pain) occurs more frequently in patients with diabetes. It is possibly due to a blunted pain response and symptoms of small fiber neuropathy. Autonomic neuropathy evolves early in the course of diabetes (Kempler, 2003). Cardiac parasympathetic nerve fibers are affected before sympathetic fibers, leading to a relative excess of sympathetic tone that initially manifests as tachycardia, reduced heart rate and blood pressure response to exercise (Fang et al, 2004; Nesto, 2004). About parasympathetic tone, allied to endothelial dysfunction, may be responsible for the exaggerated or inappropriate coronary vasoconstriction, which may produce or worsen ischemia. Sympathetic nervous system dysfunction is evident in 5 years from the onset of parasympathetic abnormalities and manifests as orthostatic hypotension (Fang et al., 2004; Nesto, 2004; Vinik et al., 2007). Autonomic dysfunction is responsible for the lack of pain, perception during ischemia or exercise testing, and for the higher incidence of silent ischemia. In addition, autonomic neuropathy may be responsible for sudden death in diabetic patients (EI-Atat et al., 2004, Verglio et al., 2004). Therefore, in this study, the lack of pain or having tolerable chest pain may alter informants' perception of their health condition and may make the informants perceived that living with symptoms was a less life threatening situation than undergoing CABG surgery. Thus, these informants feared of death from the surgery.

The finding of this study also indicated that when the informants perceived their own health conditions as a progressive in severity with intolerable and uncontrollable symptoms, they viewed CABG surgery had more beneficial than a risk to their lives. They perceived that the ongoing deterioration of their physical function from their illness made living with CAD increasingly difficult and it was more life threatening than undergoing surgery. Therefore, the informants came up with the feeling of fear of death due to their illness prior to surgery which caused uncertainty about life. This finding is similar to Banner et al. (2011) which revealed that during the long waiting period for CABG surgery the informants feared about their symptoms would escalate. As a consequence, they accepted CABG surgery as a way to reclaim their previous health condition. In the current study, it is indicated that the common symptoms related to CAD progression such as more severe chest pain, dyspnea, and fatigue affect the informants' perception of their heath condition and result in changing type of fear of death. The more severe of CAD related symptoms might be interpreted and perceived by the informants that their lives were in crisis.

Disability is another possible risk that might happen to persons undergoing CABG surgery. The informants described this possible disability as a decreased an ability or a total inability of body function in performing activities of daily living. While awaiting CABG surgery, the informants' fear of becoming disabled was the results of an individual perception of health condition and the information obtained from healthcare providers, relatives, and friends regarding the facts of possible risks and complications of CABG surgery. This finding is congruent with Banner (2010) which indicated that the informants were afraid of suffering disabling complications that would potentially make them a burden to their family. Consequently, the informants felt uncertain about life during waiting for CABG surgery.

The findings of this study confirmed the existing knowledge about the fear and uncertainty occurred during waiting for CABG surgery. It is consistent with Vargas, Maia, and Dantas (2006) which revealed that the moment the informants were informed about the need of being scheduled for the heart surgery frightens them since the heart has a cultural meaning as an organ that is responsible for control life. Thus, surgery of this organ emotionally put patients and their families to trouble due to the threat it poses to their future and to the reconstructuring of their daily life. In addition, Lindsay, Smith, Hanlon, and Wheatley (2000) indicated that the informants afraid of dying during and after the anesthetic-surgical procedure, and afraid of suffering irreversible damage. Therefore, when the CABG surgery is indicated and scheduled, persons awaiting CABG usually experienced the uncertainty about life.

The finding of this study also supports the results of previous studies about waiting for the CABG surgery both in Thailand and western countries. In the Thai context, the finding of present study also supported the only one study of patients waiting for CABG in the south of Thailand by Bunkong (2009) which found that almost half of Thai southern patients waiting for CABG reported fear/fright, stress/anxiety, and uncertainty as the most common psychological symptoms. In western countries, the study indicated that the greatest problem among patients waiting for CABG surgery is uncertainty and fear about what will happen next (Hawley, 1998). Besides, the situation of waiting for CABG is considered stressful and anxiety provoking (Fitzsimons, Parahoo, Richardson, & Stringer, 2003). Therefore, the informants of this study felt fear of death and fear of disability resulted in uncertainty while awaiting CABG. This finding is also confirmed the study of Bengtson et al. (1996) which asserted that uncertainty about future, uncertainty whether they would be treated in time, and fear were more disturbing for patients waiting for coronary revascularization than chest pain.

The study of the experience of waiting for CABG on seven men and two women by Dubyts (1988) also revealed uncertainty in the experience of waiting for CABG surgery. In her study uncertainty passed through all three facets of their experience including the illness facet, the surgery facet, and the wait facet. Within the illness facet, there was uncertainty about the course of illness and the possibility of an illness related complication including death. Within the surgery facet, there was uncertainty surrounding the actual experience of surgery and hospitalization, and the short and long term outcomes of surgery. Finally, within the wait facet there was uncertainty about the duration of the wait and whether one would survive the wait without sustaining a myocardial infarction or dying. Therefore, the uncertainty about life of this study is similar to Dubyts's study, but the present study contributes the new knowledge about the dynamic of uncertainty among persons awaiting CABG.

The theory of uncertainty in illness was described by Mishel (1984). According to Mishel's theory, the situation is considered to be uncertain when it cannot be adequately structure or category because sufficient cues are lacking. She has found that there is a strong relationship between uncertainty and stress, and suggests that it is vagueness, lack of clarity, and lack of information about a situation that generates a stressful evaluation of it. The findings of Banner (2010) found that the waiting time was identified as a time of uncertainty, complicated by deteriorating health, worsening functional limitations, and a growing fear of death and disability. This observation lends support to the uncertainty perceived by the informants in this current study. Uncertainty in the situation of persons awaiting CABG maybe due to the vagueness of risks and complications related to sustaining illness or surgery. A lack of information about the experience of the up coming surgery and the date for surgery also created uncertainty for these individuals. Using Mishel's theory, then, uncertainty would be significantly related to the stress or fear during waiting for CABG surgery.

Uncertainty as described by Lazarus and Folkman (1984) was defined into two types, event uncertainty and temporal uncertainty. Event uncertainty is the likelihood of an event's occurrence. In the present study, all of the potential complications associated with cardiac illness and the upcoming CABG surgery can be described in terms of event uncertainty. The knowledge about the benefit and risks or complication related to CABG surgery might be helpful in reducing some level of fear and or uncertainty about outcomes of surgery but it could not provide the guarantee for a successful outcome. For temporal uncertainty, it refers to not knowing when an event is going to happen. Because the informants did not have a definite date for surgery, their wait was plagued with temporal uncertainty. This was especially so for the seven informants in this study who had been given postponement the date of surgery. The concepts of event and temporal uncertainty thus have utility for explaining the pervasiveness of uncertainty in the experience of waiting for CABG surgery.

Mishel (1983) indicated that cardiovascular patients generally perceive uncertainty in the form of ambiguity about the severity of their illness. This related to the life-threatening nature of the illness and the threats of continued damage and death. Additionally, cardiovascular patients were found to perceive uncertainty in relation to the effectiveness of their treatment. Hence, both uncertainty about the severity of illness and uncertainty in relation to the effectiveness of their treatment are congruent with the finding of this study in which the informants were uncertainty about life as they fear of death following the CABG surgery, and fear of death prior to the surgery due to the physical deterioration related to the life-threatening nature of the illness and the threats of continued damage and death.

The nature of CAD implies that critical events may occur at any moment during the whole chain of waiting, from the first anginal complaint until the actual day of surgery. The current study, eleven informants were put on a long waiting list ranged between 69 to 752 days. It means that they had to live with uncertainty during the long waiting period. According to Penrod (2001, 2007), uncertainty is a dynamic state in which there is a perception of being unable to assign probabilities for outcomes that prompts a discomforting, uneasy sensation that maybe affected through cognitive, emotive, or behavioral reactions, or by the passage of time and changes in the perception of circumstances. Uncertainty is a conclusion of being in doubt or not knowing that is reached after the person tallies available cognitive and precognitive forms of evidence. The state of uncertainty is dynamic according to the individual's on going perception and processing of evidence at a given point in time. This state is discomforting as the person's usual or everyday way of being in the world is disrupted. Therefore, "uncertainty of life", the major theme of experience of persons awaiting CABG, that emerged from in the current study can be explained by the concept of uncertainty as described by Penrod (2007).

The Managements of Persons Awaiting CABG

Well-being of persons awaiting CABG is the most important and great value. Under the situation of uncertainty of life and having intolerable or uncontrolled signs and symptoms that disturbed their everyday lives, the informants then struggled and strived to balance their well-being. The theme "Striving to balance well-being" that emerged from this study described as the actions aimed to reduce the uncertainty of life which derived from fear of death, being threatened by uncontrolled signs and symptoms, and fear of disability. In order to balance their well-being, the management of physical and psychological symptoms was manipulated in every effort to relief difficulties of the persons awaiting CABG. This finding is congruent with Penrod (2007) which stated that the nature of discomfort stimulates some form of response in an attempt to move into more comfortable patterns of being. The responses strategies are based on the person's reading of the situation, past experience, and an assessment of available resources. The strategies are implemented with underlying effects on the person's perception of confidence and/or control. Therefore, the concept of uncertainty of Penrod (2007) can clearly explain the situation of "striving to balance well being", the major theme of management of persons awaiting CABG, that emerged from the current study.

Increasing progressive uncontrolled suffering from uncontrolled signs and symptoms of CAD made persons awaiting CABG perceived that their lives were threatened. Consequently, they tried to find the ways to balance their well-being during waiting for CABG by managing their symptoms. The goal of managing symptoms during this period was to treat the severe symptoms of CAD as early as possible. However, the management depends on the individual's perception of the symptom experience whether symptoms threaten to their lives or not. According to Dodd et al. (2001), the process of managing symptom begins with the assessment of symptom experience from the individual's perspective, followed by identifying the focus for intervention strategies. In this study, to manage their symptoms during waiting for CABG, three major strategies including non-pharmacological management strategy, pharmacological management strategy, and combining both methods were applied on the basis of informants' symptom experiences.

In this study, the pattern of managing symptom strategies in which the informants used to relieve their chest pain or chest discomfort were non-pharmacological, pharmacological, and combining both non-pharmacological strategies. The current study revealed that most informants used non-pharmacological management strategy as the first priority in both typical and atypical symptoms (dyspnea or fatigue). Resting, a non-pharmacological management strategy was also used to manage chest pain, dyspnea, and fatigue in this study. Informants reflected that these strategies provided them more comfort. Convertino (1997) and Redeker, Ruggiero and Hedges (2004) indicated that resting helps the patients to relax and reduce the oxygen consumption by the cardiac muscle which can reduce symptoms related to CAD. For the pharmacological management for managing their chest pain, three of eight informants who experienced chest pain reported taking nitroglycerine sublingually during their severe chest pain; none of them took it before doing activities. They learnt to take it from their past experiences and following the healthcare providers' suggestions. They indicated the necessity of the sublingual drug must close to hand when needed. This finding confirmed the study conducted by Lindsay et al. (2000) which found the dependency on nitroglycerine of patients waiting for CABG. However, three of all informants reported no symptom of chest pain while waiting for CABG. This finding might be possible because the managing prescription drugs used to treat CAD including beta-blockers, calcium-channel blockers, and angiotensin converting enzyme [ACE] inhibitors are frequently successful in controlling chest pain and also allow normal daily activities (Miller, 2006). Therefore, this might be reflected that most of informants in this study strictly managed their prescription drugs during waiting for CABG. Additionally, massaging at local area by caregiver or significant other was reported in currents study as a big help in relieving back tightness or chest pain-like symptom which are similar to the findings of Dej-adisai (2006).

For dyspnea or shortness of breath management, four informants reported that they used an electrical fan accompanying with resting to provide better air ventilation.

Moreover, two of them used resting, cold compression, and turning on an electrical fan in order to help relief heat and provide them more comfort. Buckholz and von Gunten (2009) reported that keeping the room cool with the moving air via fan or open the window is helpful in reducing the feeling of dyspnea in patients with chronic obstructive pulmonary disease [COPD], and it is the practical therapies to recommend. They postulated that nasal cold receptors in the nose arising from the V2 distribution of the trigeminal nerve give sensory input to affect respiration and decrease breathless. Therefore, the findings of current study confirm the management strategies of patients waiting for CABG studied by Bunkong (2009) and can be explained by the existing research and literature.

During waiting for CABG, cardiac symptoms and general tiredness varied considerably and were unpredictable in advance but greatly affected their feeling of wellness. The limitation of body function due to the progressiveness of the CAD caused persons awaiting CABG to achieve the well-being by adjusting their activities of daily living. In the current study, most of the informants adjusted ADL by reducing using lots of strength to more tolerable activities done fewer times. The reduction of strenuous activities gave them better overall health. This finding confirms the finding of Banner (2010) which revealed that despite increasing physical limitation, women adapted activities to ensure that domestic activities were performed. Being unable to maintain normal domestic standard symbolized a loss of control and inability to cope. Therefore, developing strategy by adjusting their ADL was an important way of the patients to maintain in competence. Ivarsson, Larsson, and Sjoberg (2004). reported the results of the study of “Patients’ experiences of support while waiting for cardiac surgery” that there were also patients who did not dare to be far from home and that did not have the energy for much social activities. Therefore, they had to plan their lives on the basis of physical capacity.

Modifying the informants' eating behavior was one of the most effective strategies for striving to balance well-being among persons awaiting CABG. In this study, the informants realized the contribution of diet risk to their CAD progression, therefore, an approach of consuming a heart-healthy diet (i.e. high protein from fish and beans, low fat food, fruits and vegetables etc.) and avoidance of consuming a heart-unhealthy diet (i.e. high calorie diet, high saturated fat, etc.) were monitored. The findings of this study confirm the existing knowledge of Roitman and LaFontaine (2006) which indicated that secondary prevention is the process of reversing or stabilizing underlying disease to reduce the risk of subsequent events and lifestyle therapies, and it has been shown to reduce morbidity and mortality rates in populations with cardiovascular disease. Moreover, Hu and Willett (2002) reported that components in the diet including dietary fiber (especially water-soluble fiber, a wide range of antioxidants), B vitamins (B6, B12, and Niacin), folic acid, omega-3 fatty acids, calcium, and potassium while minimizing intake of foods high in saturated fat, trans-fatty acids, calories, and sodium are beneficial for persons with cardiovascular disease.

Exercise is an effective secondary prevention and risk factor reduction among persons awaiting CABG. The findings of current study revealed informants' realization the great value of exercise as: 1) It contributed to bodily function and immunity to maintain health during waiting period throughout post operation; 2) It promoted rest and sleep patterns which help balancing their well-being; 3) It helped to decrease tension and anxiety; and 4) It burned energy and wash out obstructed coronary artery. Adjusting an overused strenuous exercises (sprinting, Taikek, playing football etc.) to the lesser one (swinging both arms up and down, household chores, walking) had helped the informants to reach their well-being. The findings of this study confirm the results of previous studies which concluded that a lifestyle approach to physical activity (e.g. household chores, walking, and gardening) can be as effective as a traditional exercise program. Additionally, lifestyle approach to physical activity is interested and it is worked out through recent research study. Several randomized control trials have shown that a lifestyle approach to physical activity among previously sedentary adults can be effective and had similar effects on aerobic fitness, body composition, and coronary risk factors compared with a traditional structured exercise program (Andersen, Wadden, Bartlett, Zemel, Verde, & Franckowiak, 1999; Dunn Marcus, Kampert, Garcia, Kohl III, & Blair, 1999). This finding has an important implication for health care providers, suggesting a wider range of choices of physical activity and potentially greater flexibility in scheduling. Thus, healthcare providers should consider broadening their patients' exercise prescriptions from the traditional frequency, intensity, duration, and modes of training that are associated with structured programs, to encourage them to increase activity in daily living as well.

In the situation of lives were threatened by feeling of uncertainty of life from fear of death or fear of disability, persons awaiting CABG, then, perceived the struggle for maintaining their health within illness. In order to achieve their well-being while awaiting CABG, persons awaiting CABG tried to build their hopes by performing rituals as the spiritual management strategy. The findings of the current study revealed that persons awaiting CABG struggled and sought for supports through their spiritual beliefs by building hope through rituals to enhance the comfort and peace of mind. They, then, sought religious or spiritual resources such as going to the Buddhist temple, a sacred or peaceful place where they could relate their mind to what they believed or respected. Moreover, they also practiced religious activities such as meditation, prayer, and accumulated religious merit. It is possible that spiritual beliefs as well as religious practices provide ways for persons awaiting CABG to cope with their fears, anxieties, and frustrations as life changes and health problems develop. The findings of this current study confirmed Reed (1991) which indicated that spirituality often become particularly remarkable when persons move closer to death or being in the situation of uncertainty in life. Tongprateep (2000) which studied spirituality and health in older Thai persons in the United States reported that spiritual beliefs and religious practices inspired persons to cope with the difficulties, enhanced their perceptions of meanings in life, and provided hope for them concerning the future. Importantly, since all informants in this study are Buddhists who lives in northern Thai culture which spirituality is associated with health and what persons value most in life, therefore, they focus on spirituality based on religious and supernatural beliefs in a part of their daily lives. Learning and practicing more about religious particularly the doctrines of Buddhism may provide them the philosophy of the truth of human life to alleviate their suffering and to foster the spirituality. Therefore, the informants in this study built their hope with happiness into to the Buddha and the supernatural or unseen power for the better fulfillment of their well-being.

As the Buddha's doctrine "No one can escape from suffering, sickness, and death", this puts the informants who all are Buddhists to the right understanding of being readiness in preparing themselves to face with the situation that closer to death. The findings of the current study showed that the informants had managed their unfinished businesses during awaiting period such as writing a last will and testament to the wife and kids, letting the wife and kids to know all about properties, and calling all relatives to meet each other and seeing herself before getting the operation. Actually in the Thai context, writing a last will and testament in healthy person is not preferable because it is believed that it might cause person into suffering or death before expected date. Nevertheless, writing a last will and testament in the situation that one moves closer to death is acceptable. In this case, the cause of managing unfinished business might be regarding to the informants' spiritual belief related to leaving unfinished business behind might cause them unhappiness of life after death or "naun-tai-ta-mai-lub" which means that dying with all concerns behind. Therefore, they prepared for death and would like to die peacefully by managing unfinished business.