LIFE SATISFACTION OF THE ELDERLY IN PHUKHIAO DISTRICT, CHAIYAPHUM PROVINCE, THAILAND

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Thesis
entitled

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ABSTRACT

As Thailand is becoming an aging society, the well-being of the elderly should be an important concern. This cross-sectional descriptive study aimed to examine life satisfaction and its related factors of the elderly in Phukhiao district, Chaiyaphum province, Thailand. The data collection was conducted in January, 2010.

Participants in the study consisted of 203 local residents aged 60 years old or over. Interviews were conducted by local nurses and the researcher utilizing a questionnaire in order to collect data, which were socio-demographic characteristics, Buddhist values, mindfulness, social support, and life satisfaction.

The participants were mainly female. Their median age was 66 years old. Most participants achieved high scores on Buddhist values, mindfulness, social support, and life satisfaction. Pearson's Correlation between life satisfaction and independent variables revealed a significant relationship. Multiple regression demonstrated that Buddhist values, mindfulness, and social support were significant predictors for life satisfaction of the elderly.

In conclusion, Buddhist values, mindfulness, and social support were positively associated with life satisfaction of the elderly. However, further study is needed to investigate mechanisms of Buddhist values and mindfulness to increase life satisfaction. It is also recommended that in order to help the elderly they should be encouraged to participate in Buddhist activities to promote their well-being.

KEY WORDS: ELDERLY / BUDDHISM VALUES / MINDFULNESS / SOCIAL SUPPORT / LIFE SATISFACTION

109 pages

ความพึงพอใจในชีวิตของผู้สูงวัยในเขตอำเภอภูเขียว จังหวัดชัยภูมิ ประเทศไทย
LIFE SATISFACTION OF THE ELDERLY IN PHUKHIAO DISTRICT, CHAIYAPHUM PROVINCE, THAILAND

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การบริหารสาธารณสุขมูลฐานมหาบัณฑิต

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บทคัดย่อ

เนื่องด้วยประเทศไทยกำลังจะก้าวเข้าสู่สังคมผู้สูงวัย ดังนั้นจึงมีความจำเป็นที่จะต้องคำนึงถึงสุขภาวะของผู้สูงวัย การศึกษาแบบตัดขวางนี้มีวัตถุประสงค์เพื่อที่จะสำรวจหาปัจจัยที่มีความสัมพันธ์กับความพึงพอใจในชีวิตของผู้สูงวัยในเขตอำเภอภูเขียว จังหวัดชัยภูมิ ประเทศไทย

การศึกษานี้ใช้แบบสอบถามซึ่งประกอบด้วย ข้อมูลส่วนบุคคล แบบวัดคุณค่าทางพุทธศาสนา แบบวัดความมีสติรู้ตัวอยู่เสมอ แบบวัดการสนับสนุนทางสังคม และแบบวัดความพึงพอใจในชีวิต เป็นเครื่องมือในการเก็บข้อมูล โดยมีพยาบาลในพื้นที่และนักวิจัยทำหน้าที่เป็นผู้เก็บข้อมูลด้วยการสัมภาษณ์ผู้สูงอายุจำนวน 203 คนในช่วงเดือนมกราคม ปี 2553 เกณฑ์ในการคัดผู้สูงอายุเข้าร่วมการวิจัยนี้ คือผู้ที่มีอายุ 60 ปีขึ้นไปและต้องอาศัยอยู่ในเขตอำเภอภูเขียว

ผลการศึกษาพบว่าผู้สูงอายุส่วนใหญ่เป็นหญิง มีอายุมัธยฐาน 66 ปี ค่าคะแนนของคุณค่าทางพุทธศาสนา ความมีสติรู้ตัวอยู่เสมอ การสนับสนุนทางสังคม และความพึงพอใจในชีวิตอยู่ในระดับสูง การวิเคราะห์สหสัมพันธ์เพียร์สัน พบว่า ปัจจัยที่มีความสัมพันธ์อย่างมีนัยสำคัญกับความพึงพอใจในชีวิตคือ คุณค่าของพระพุทธศาสนา ความมีสติรู้ตัวอยู่เสมอและการสนับสนุนทางสังคม การวิเคราะห์ความถดถอยเชิงพหุ พบว่า คุณค่าทางพุทธศาสนา ความมีสติรู้ตัวอยู่เสมอและการสนับสนุนทางสังคมเป็นปัจจัยที่สามารถทำนายระดับความพึงพอใจในชีวิต

โดยสรุปแล้วคุณค่าทางพุทธศาสนา ความมีสติรู้ตัวอยู่เสมอและการสนับสนุนทางสังคมมีความสัมพันธ์เชิงบวก กับความพึงพอใจในชีวิตของผู้สูงวัย สิ่งที่ควรทำการศึกษาครั้งต่อไปคือ การค้นหาเพื่ออธิบายถึงกลไกที่คุณค่าทางพุทธศาสนา ความมีสติรู้ตัวอยู่เสมอและการสนับสนุนทางสังคมช่วยเพิ่มระดับความพึงพอใจในชีวิต ผลจากการศึกษานี้เสนอแนะว่าผู้สูงวัยควรจะเข้าร่วมกิจกรรมทางพุทธศาสนาเพื่อเป็นการสร้างเสริมสุขภาวะที่ดี

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LIST OF ABBREVIATIONS

ACT	:	Attentional Control Training
AIHD	:	ASEAN Institute for Health Development
BVM	:	Buddhist Value Measure
MASS	:	Mindfulness Attention Awareness Scale
MBCT	:	Mindfulness-Based Cognitive Therapy
MBSR	:	Mindfulness Based Stress Reduction
PWI	:	Personal Wellbeing Index
QOL	:	Quality of Life
SR&RP	:	Stress Reduction and Relaxation Program
SWB	:	Subjective Well-Being
TSWLS	:	Temporal Satisfaction with Life Scale
UN	:	United Nations

CHAPTER I
INTRODUCTION

1.1 Rationale and Justification

Thailand is becoming an aging society. In turn, the elderly in Thailand are not delivered sufficiently with social security so that many of them, especially in rural place, are struggling to make a living. Thailand is a religious Buddhist country. If religion can relieve hardship, Buddhism may be able to contribute to the well-being of the Thai elderly.

Global ageing is progressing rapidly in both developed and developing countries. According to the United Nations (UN), compared with the more developed world, the population of the less developed regions is ageing rapidly. Over the next two decades, the population aged sixty or over in the developing world is also projected to increase at rates far surpassing three per cent per year and its numbers are expected to rise from 475 million in 2009 to 1.6 billion in 2050 (1).

In Thailand, population ageing is occurring at one of the most rapid rates in Asia. The percentage of the elderly, defined aged sixty and older increased from 5% to 9% between 1960 and 2000. It is now estimated that this percentage will reach 18% by 2020. The number of the elderly simultaneously increased from 1.2 million in 1960 to 6 million in 2000 and is expected to reach 12 million by 2020 (2).

Population ageing raises many fundamental social issues. The World Health Organization (WHO) refers to the following seven challenges of an ageing population: the double burden of disease; increased risk of disability; providing care for ageing populations; the feminization of ageing; ethics and inequities; the economics of an ageing population; and forging a new paradigm (3).

In the context of Thailand, three issues are particularly significant: family relations, health care, and financial security (4). Changes based on family relations may lead to issues related to housing and living arrangements, daily personal care, and financial and social support. Many elder individuals have physical and/or mental impairments that occur throughout the later years of life. Thongtang et al. reported that the major contributing factors to depression for the Thai elderly are financial problems, poor family relationships, and physical illness (5). In other words, social well-being and physical situation are contributors of mental problems.

According to WHO, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (6). Thus, health workers should pay more attention to social well-being and have ideas how to assess and to improve it. Religion might be one method to improve one’s well-being and living quality. Elderly people in many countries often believe in their own religion. Positive influences of religion on physical and mental health and community relation have been reported (7, 8). In Thailand, 95% of the population is Buddhist (9) and many older people are especially keen to believe in it and practice in their daily living. Therefore, in Thailand, Buddhism may be considered to have good influence on people's lives.

This research was based on the model of religion and bio-psycho-social health which was presented by Marks (10) in order to examine relationship between religion and health. This model is composed of three religious elements, spiritual beliefs, religious practices, and faith communities. Then, each dimension matches respectively individual factors, which are biological health, psychological health, and social aspects of health.

In this study, this model was simplified in order to examine the relationship between Buddhism and the life satisfaction of the Thai elderly. In terms of Buddhism, these three dimensions were used, but as for the individual elderly, subjective life satisfaction was utilized instead of individual health factors. The reason is that life satisfaction represents a report of how a respondent evaluates or appraises his or her life taken as a whole (11). Then, three dimensions of Buddhism and subjective life satisfaction were defined by a structured questionnaire.

Therefore, this study examined the relationship between the life satisfaction of the Thai elderly and Buddhism using the questionnaire in order to see how Buddhism contributes to life satisfaction of the Thai elderly.

1.2 Research Questions

1. What is the life satisfaction of the elderly in Phukhiao district, Chaiyaphum province, Thailand?

2. How do the Buddhist values, mindfulness and social support influence

life satisfaction of the elderly in Phukhiao district, Chaiyaphum province, Thailand?

1.3 Research Objectives

1.3.1 General Objectives

This study aims to describe the life satisfaction of the elderly in Phukhiao district, Chaiyaphum province, Thailand and its related factors.

1.3.2 Specific Objectives

1. To describe the socio-demographic characteristics of the elderly

2. To describe life satisfaction, Buddhist values, mindfulness and social support

3. To examine the relationship between life satisfaction and Buddhist values, mindfulness, and social support

1.4 Research Hypothesis

Buddhist values, mindfulness and social support were positively associated with life satisfaction of the elderly in Phukhiao district, Chaiyaphum province, Thailand.

1.5 Conceptual Framework

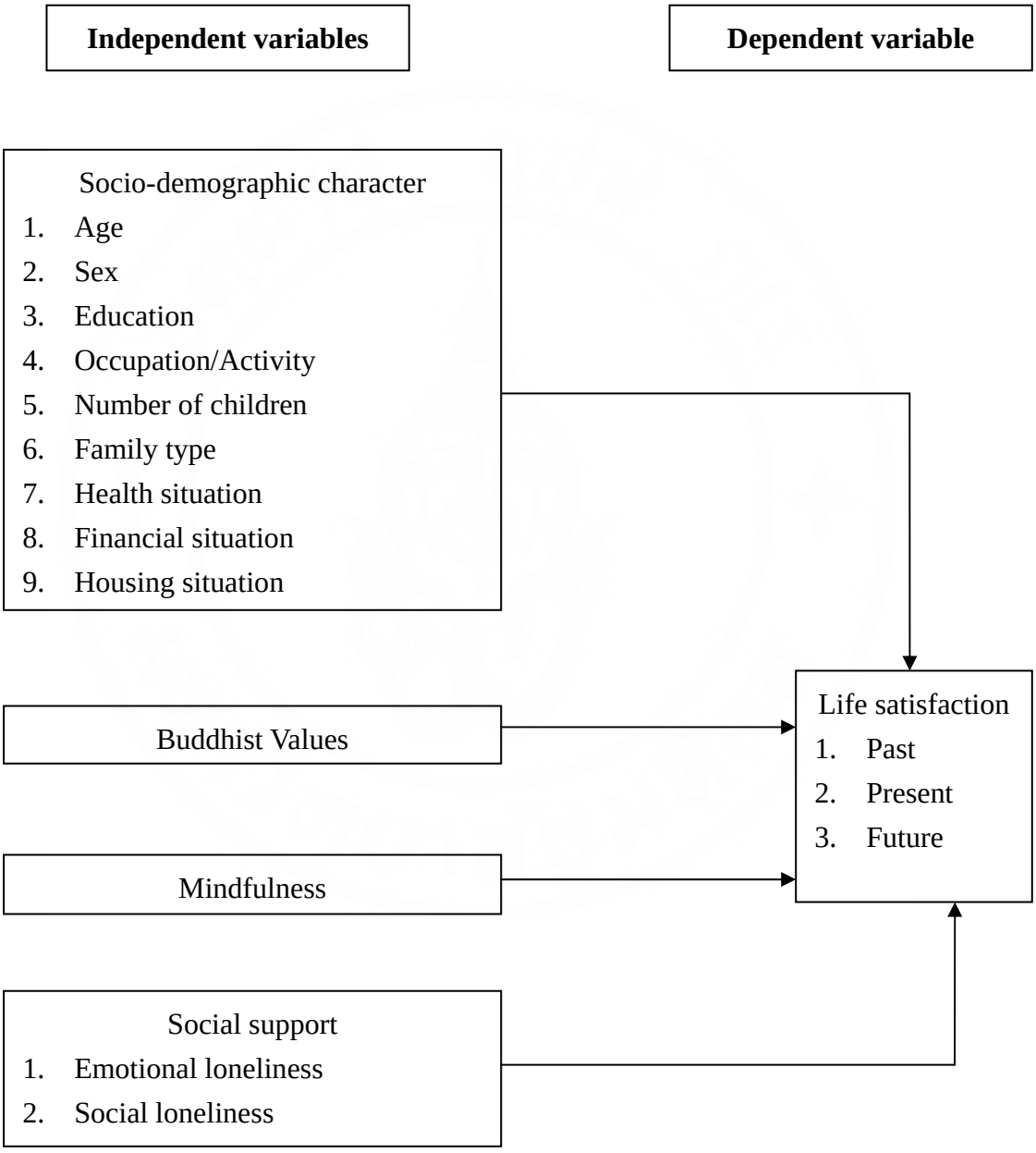

Figure 1.1 Conceptual Framework

1.6 Operational Definition

Life satisfaction: Life satisfaction, which was measured with the temporal satisfaction with life scale (12), was defined as an individual's general sense of satisfaction with their life as a whole, when they viewed their past, present, and future lives respectively from the present standpoint.

Buddhist values: Buddhist values, which were measured with Buddhist values measure (13, 14), were defined as how much the participants agree or disagree to basic Buddhism teachings.

Mindfulness: Mindfulness, which was measured with the mindful attention awareness scale (15), was inherently a state of consciousness. In this research, it was defined as the presence or absence of attention to and awareness of what was occurring in the present.

Social support: Social support was measured with the 6-item De Jong Giereld loneliness scale (16). This scale measures two kinds of loneliness: emotional loneliness and social loneliness. Emotional loneliness means the absence of an intimate relationship or a close emotional attachment like a partner of best friend. Social loneliness means the absence of a broader group of contacts or an engaging social network.

1.7 Limitation of the study

This study did not include some domains, which influence life satisfaction, such as self-esteem, and personality.

As the measurement instruments used in this study, except the Buddhist values, were produced in Western countries, they might not be appropriate for Thai people.

CHAPTER II
LITERATURE REVIEW

2.1 Theoretical Model

In the research field of religion-health or well-being connection, one of the major problem areas has been measurement of religion, religiosity, and religious involvement (17). However, in many studies, the only religious indicators are behavior (e.g., frequency of religious attendance), and their effects on health outcomes may well be indirect (18). Ellison and Levin advocated that it was crucial to distinguish between behavioral and functional aspects of religious involvement. Because these functions of religion are rarely measured directly, there is usually no way to see which of these mechanisms might account for the widely observed positive effect of religious behavior (e.g., frequency of religious attendance) on health or well-being. A research approach to the religion-health or well-being connection should include one or more religious indicators in a multivariate model consisting of “established” socio-demographic, biological, psychosocial, and/or other predictors of a given health outcome to see whether these new additions enhance the predictive power of that model (18). Therefore, in this study, the model of religion and bio-psycho-social health (10) was utilized.

2.1.1 Model of Religion and Bio-Psycho-Social Health

The model of religion and bio-psycho-social health presented by Marks (10) is composed of three dimensions which are religious practice, spiritual beliefs, and faith community with three dimensions of health including biological, psychological, and social (figure 2.1).

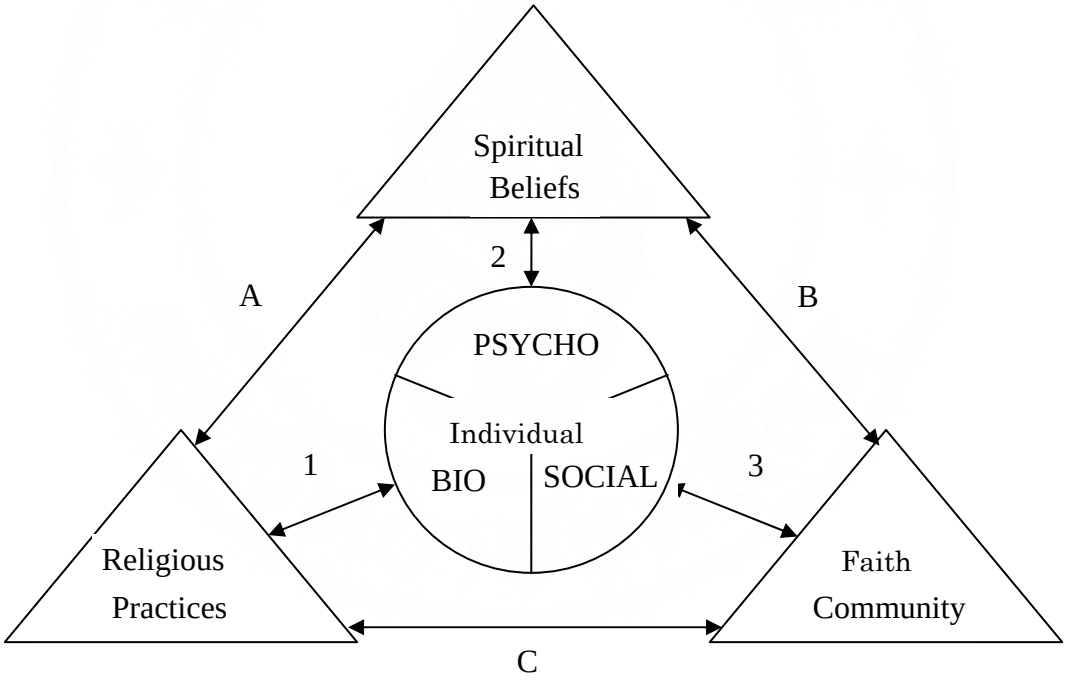

Figure 2.1 Research Connections between Religious Beliefs, Practices, and Communities and Individual Biological, Psychological, and Social Well-Being

Source: Marks L. Religion and Bio-Psycho- Social Health: A Review and Conceptual Model.

Arrow A: ***The Practices-Beliefs Connection***

Arrow A indicates the interrelationship between practices and beliefs. This interrelationship is important because practices and abstinences, for examples the use or avoidance of alcohol, tobacco, and drugs, are often influenced by religious beliefs. However, religious beliefs are often reinforced by religious practices.

Arrow B: ***Beliefs-Community Connection***

Arrow B impacts the psychological coping through social, emotional, and moral support a faith community can provide, particularly in times of stress, crisis, or bereavement. However, the faith community can also aggravate certain kinds of stress, including stress resulting from behaviors unacceptable to the beliefs held by the faith community. Spiritual beliefs also impact the faith community in that personal religious beliefs can influence what assembly an individual becomes involved in, or whether he or she becomes involved in one at all.

Arrow C: ***The Community-Practices Connection***

In most faiths, specific religious practices are inherently communal and bring a community together with a common unifying purpose.

The individual

In figure 2.1, the three different dimensions of religion (practice, beliefs, and community) are respectively linked by arrows with the biological, psychological, and social aspects of individual health.

Arrow 1: ***Religious practice and biological health***

Arrow 1, which connects the dimension of religious practices with the biological aspect of individual health, represents researches that typically correlate certain prescribed and proscribed religion-related practices with biological benefits, for example, a relation between religious practices and drug-related practices.

Arrow 2: ***Spiritual beliefs and psychological health***

Arrow 2, which connects the dimension of religious beliefs with the psychological aspect of the individual's being, represents the abundant body of empirical literature correlating religious beliefs with a number of beneficial psychological outcomes, for example, a relation between religious beliefs and mental health.

Arrow 3: ***Faith community and social health***

Arrow 3, which connects the dimension of faith community to the social aspect of health, is grounded in literature that has examined the local faith community or congregation as a means of social and instrumental support for those who are actively involved in a faith community.

In this study, the model was modified changing individual's physical, psychological, and social aspects to subjective life satisfaction, which includes all these aspects. In addition, the beliefs, the practices and the social are considered with the Buddhist Values, mindfulness, and social support respectively.

2.2 Life satisfaction

2.2.1 Life satisfaction and related other concepts

Several terms are used interchangeably with life satisfaction, and it is important to distinguish between them, such as Quality of Life (QOL), well-being, and functional status. Haas (19) offered the definition as a means of distinguishing QOL from the closely related concepts of well-being, life satisfaction, and functional status. QOL is composed of four dimensions: physical, psychological, social, and spiritual, and each dimension is indicated by well-being subjectively and by factional status objectively (figure 2.2).

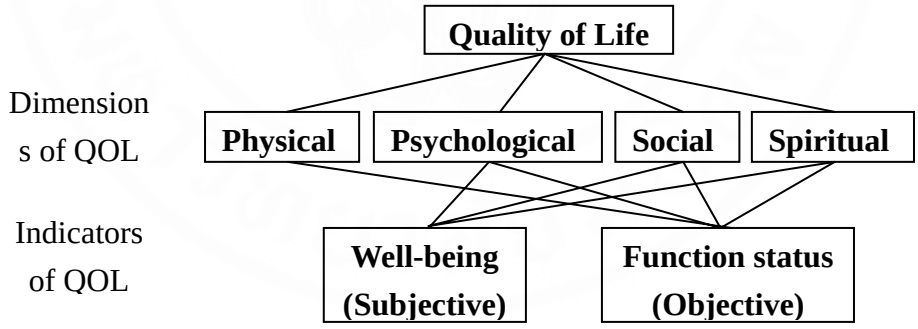

Figure 2.2 Well-being and functional status as subjective and objective components of quality of life

Source: Haas BK. Clarification and integration of similar quality of life concepts.

2.2.2 Definition of subjective well-being

Diener suggests that there are three characteristics to the area of subjective well-being (SWB) (20). First, it is subjective – it resides within the experience of the individual. Second, it is not just the absence of negative factors, but also includes positive measures. Third, it includes a global assessment rather than only narrow assessment of one life domain. Diener also cited Veenhoven's definition of subjective well-being as the degree to which one judges the overall quality of their life as a whole in a favorable way. In other words, subjective well-being is how well the person likes the life they lead (21). Arthaud-day et al. revealed a theory that subjective well-being consisted of three domains: 1) cognitive evaluations of one's life (i.e., life satisfaction or happiness); 2) positive affect; and 3) negative affect (22). Therefore, life satisfaction was used as an evaluative judgment for SWB in this study.

2.2.3 Theory for SWB

Diener and Seligman reviewed theories related to SWB focusing on the more provocative psychological theories, not including biological or sociological theories (23).

Telic theories: Telic or endpoint theories of SWB maintain that happiness is gained when some state, such as a goal or need, is reached. Many studies on SWB appear to be based on an unquestioning model related to needs and desires. The degree of resources presumably related to needs and goals is assessed and correlated with SWB.

Pleasure and pain: Pleasure and pain are somehow connected. One reason has to do with psychological investment or involvement with the goal. If a person has an important goal and has worked hard to attain it, failure will produce substantial unhappiness and success will lead to much happiness. If a person has little interest in reaching a goal, failure to achieve it will not bring great unhappiness. Thus, commitment, involvement, and effort seem to raise the intensity of effect that a person will feel.

Activity theories: These kinds of theories maintain that happiness is an accessory product of human activity. The most of explicit formulation about activity and SWB is the theory of flow, which is the holistic sensation that people feel when they act with total involvement (24). Activities are seen as pleasurable when the challenge is matched to the person's skill level. If an activity is too easy, boredom will develop; if it is too difficult, anxiety will result. When a person is involved in an activity that demands intense concentration and in which the person's skills and the challenge of the task are roughly equal, a pleasurable flow experience will result.

Top-down versus bottom-up theories: Bottom-up theory is that happiness is simply the sum of many small pleasures. According to this view, when a person judges whether his or her life is happy, some mental calculation is used to sum the momentary pleasures and pains. By contrast, the top-down approach assumes that there is a global propensity to experience things in a positive way, and this propensity influences the momentary interactions an individual has with the world.

2.2.4 The components of SWB

Diener presented the components of SWB as a conceptual hierarchy with various levels of specificity (Fig.4) (25). At the top of this hierarchy is the concept of SWB itself. At this level, SWB reflects a general evaluation of a person's life. At the next highest level are four specific components, which are positive effect, negative effect, global life satisfaction, and domain satisfactions. However, it might be possible to regard domain satisfaction as parts of global life satisfaction. These are correlated with one another, and they are all conceptually related. Each provides unique information about the subjective quality of one's life.

Pleasant and unpleasant effects reflect basic experiences of the ongoing events in people's lives. Affective evaluations take the form of emotions and moods. Emotions are generally thought to be short-live reactions that are tied to specific events or external stimuli (26), whereas moods are thought to be more diffuse affective feelings that may not be tied to specific events (27).

Global life judgments contrast with affective evaluations. Presumably, individuals can examine the conditions in their lives, weigh the importance of these conditions, and then evaluate their lives on a scale ranging from dissatisfied to satisfy. They use their own criteria for making this judgment (25).

Domain satisfaction reflects a person's evaluation of the specific domains in their lives. Presumably, if it was possible to assess all the important domains in a person's life, it would be possible that a global life satisfaction judgment is reconstructed using a bottom-up process. Thus, the process by which the

domain satisfaction judgments are combined, and weight is given to each domain, may vary with individuals. However, as domain satisfaction scores can provide information about the way individuals construct global well-being judgments, domain satisfaction might be important for researchers interested in the effects of well-being in particular areas (25).

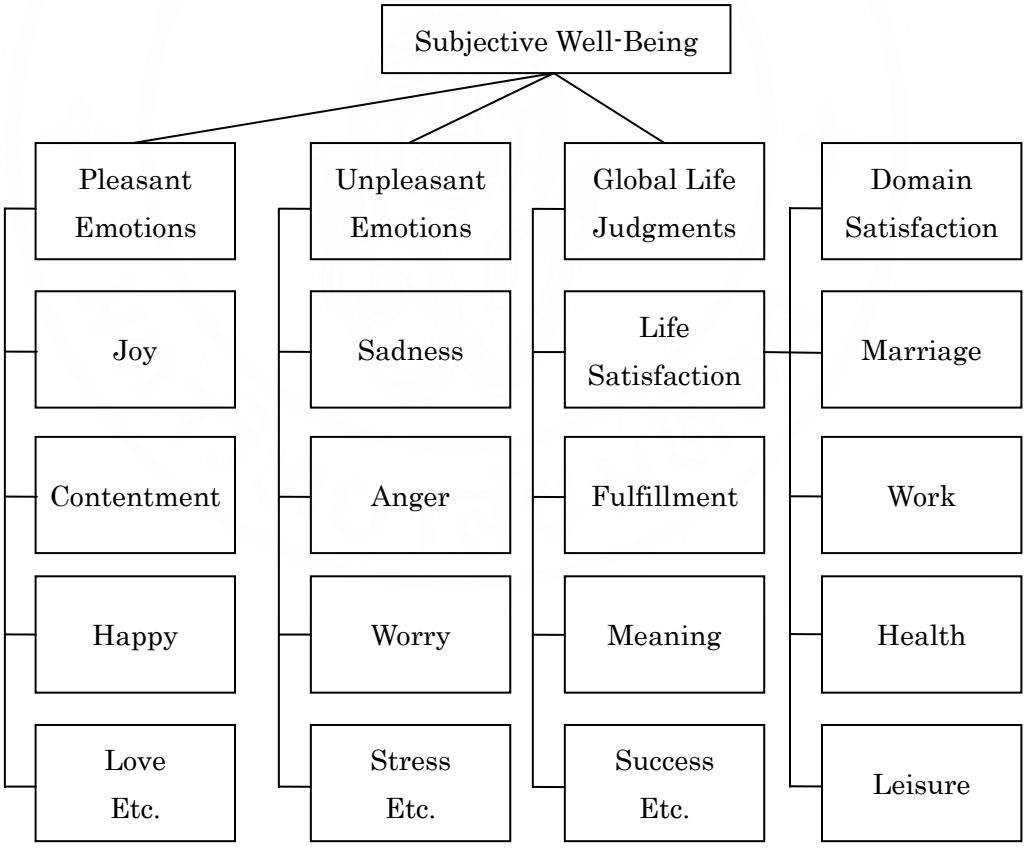

Figure 2.3 Hierarchical Model of Happiness

Source: Diener E, Napa Scollon C, Lucas RE. The Evolving Concept of Subjective Well-Being: The Multifaceted Nature of Happiness.

2.2.5 Domain and SWB

Money and well-being: Although high personal income is associated with well-being, the relationship between money and well-being is complex. The within-nation correlations between income and well-being are stronger in poorer than in wealthier societies (28). Similarly, the income and well-being correlation was 0.13 in the United States (29), whereas this correlation was 0.45 in the slums of Calcutta (30). Furthermore, there was a stronger relationship between financial satisfaction and life satisfaction in poor than in wealthy countries (31). Helliwell found that because of the declining effect of income as one moves up the income ladder, significant variations in well-being occurred in the higher income brackets only in poor nations (32). In wealthier nations, increases in income were not matched by continuing increases in well-being. Possible explanations for the relationship between money and well-being may be suggested (23). First, although people's material desires seem to catch up to their incomes and cancel the benefits of higher incomes to some degree, it appears that wealthier individuals have a smaller gap between income and desire than do poor people (33). Second, happy people tend to earn higher incomes than unhappy people. Finally, income might correlate with well-being insofar as basic needs are fulfilled, and this explanation is consistent with the evidence showing much stronger effects of income in poorer than in wealthier income groups.

Productivity and well-being: Job satisfaction and positive mood at work both contribute to the productivity of organizations. Job satisfaction is reliably related to organizational citizenship and the absence of bad citizenship (34). Bateman et al. reported that the more satisfied employees are, the more practical, helpful, and

friendly they are (35). Well-being of employees also predicts customer satisfaction (36). Studies showed that experiencing more positive emotions on the job is associated with both better performance and higher levels of organizational citizenship (37, 38). The well-being of workers results in positive organizational citizenship, customer satisfaction, and perhaps even greater productivity.

Physical health and well-being: In general, positive states of well-being correlate with better physical health (39, 40). However, people with ill health often adjust so well to their condition and report positive levels of well-being —this is a testimonial to human psychological recuperative strength (40, 41). It seems that severe health conditions also impair well-being to a degree (42). In addition, well-being appears to predict future health and longevity both positively and negatively (43, 44). The cause of this influence is unknown but may involve both physiological (e.g., immune activity) and behavioral (e.g., more exercise) factors (45).

Mental disorders: Mental disorder almost always causes poor well-being (46). Depression and anxiety especially lead to significant reductions in well-being because these disorders directly worsen people's evaluations of the world, the future, and themselves. Koivumaa-Honkanen et al. found that people with depression or anxiety disorders tend to have low life satisfaction (47).

2.3 Buddhist values

2.3.1 Basic Buddhist teachings

In the Buddha's first major discourse, he described the Four Noble Truths, which is the Buddha's insight into dukkha. Dukkha is translated "suffering" including the broader psychological ideas of dissatisfaction. Suffering is one which is inherent within all things which arise from determinants. This refers to the subjugation of all conditioned things to the contrary forces of birth and dissolution, how they are not perfect within themselves but exist only as part of the cause and effect continuum. As such, they are likely to cause suffering, that is, the feeling of suffering, whenever there is inflexible craving and clinging to them through ignorance (48).

The first Noble Truth reveals that life is filled with dukkha. The second truth shows that the source of dukkha is craving (, which leads to clinging). The third truth is that dukkha ends when craving ceases. At this point, it is said that one is fully in the present, joyful, peaceful, and compassionate. Then, one can still have preferences and goals without clinging. One's behavior becomes motivated more by compassion and appropriateness, rather than security, sensation, and power. The fourth Noble Truth is the way to get free from craving and defilements, that is, the Eightfold Path (49).

2.3.2 The fundamental teachings

Basic principles of the truth (50)

1. All existence keeps on going in its own way which came to be called the law of cause and effect. This law is natural and exists independently of any founder of religion without beginning and end.

2. All existent things, which are conditioned and relative, are composed of constituent parts and keep on going according to cause and conditions.

3. Subject to the law of cause and effect, all conditioned things are impermanent and unendurable, in other words, suffering or conflicting. They are always in the process of changing. In this process, there is no stable part, which can persist and remain the same.

Basic principles of ethics (50, 51)

1. The Buddha, who discovered the truth and made it known to people, is only the shower of the way. He guides and encourages people along the way, but one has to step to the goal by oneself.

2. Everyone is born equally as a human being. One is to be judged by own thought and action, not by own birth. Individually, everyone can improve his quality and needs of self-exertion. Socially, one can guide and encourage others, and needs to be associated with good people. People should be friends and help one another.

3. In the path of self-purification, wisdom is the key virtue and thus is to be developed. In order to develop wisdom, one must learn to think, to investigate and to understand things for oneself. Buddhist principles are things to see not to

believe blindly. Thus, one has to study and investigate the words in the scriptures thoroughly.

4. The practical teaching of Buddhism is summed up in the Middle Way or the Noble Eightfold Path, which is composed of the threefold training of morality, concentration and wisdom. One must practice all three to obtain the goal. These three instructions can be expressed in practical ways, that is, (1) not to do evil, (2) to cultivate good, and (3) to purify the mind.

The goal

The final goal of Buddhism is Nirvana, which means cessation or the peace without sorrow (50, 51). The criteria of goals can be represented by two sets of three goals, or benefits, that people should realize as fully as possible taking into account differing personal circumstances. The first set of goals comprises:

1. The goals or benefits for the here and now, or temporal welfare e.g., wealth, health, honor, position, good name, good friends, and happy family life

2. The goals or benefits for the beyond, or spiritual welfare i.g., peace and happiness of mind, a blameless life, and confidence regarding future lives.

3. The highest good, or the final goal, i.g., the supreme peace, bliss, and freedom of Nirvana.

And the second comprises:

1. One’s own welfare;

2. Others’ welfare;

3. Welfare of both oneself and others.

2.3.3 The system of Buddhist social ethics

Phra Rajavaramuni explained the whole of Buddhist ethics is based in the Noble Eightfold Path, mentioned earlier, and its two prerequisites (51).

Magga and pre-magga

The Noble Eightfold Path is known as magga, whereas these two prerequisites of the Path are pre-magga factors. The first condition of the prerequisites is generally represented by association with good people or having good friends. It is also regarded as the external or environmental factor. The second one is the internal or personal factor. The system is outlined as follows.

Pre-magga

1. Association with good people

2. Systematic attention or reflection

Magga	
Wisdom	1. Right View
	2. Right Thought
Morality	3. Right Speech
	4. Right Action
	5. Right Livelihood
Concentration	6. Right Effort
	7. Right Mindfulness
	8. Right Concentration

The eight magga factors are segments of the individual's path toward perfection. The two pre-magga factors are the means by which the individual deals with society.

The magga factors are classified into the three categories mentioned earlier, that is, wisdom, morality, and concentration. The category of wisdom includes especially an enlightened world view based on insight into the impermanent, conflicting, and not-self nature of things, and the dependent origination of all phenomena, that is, that all changes are subject to causes and conditions. Buddhist ethics is rooted in knowledge and effort based on this knowledge. The wisdom serves as the keystone. The category of mental discipline consists in the development of mental qualities and is responsible for the earnestness, resolution, and steady progress in treading the ethical path. The third category of morality is an expression of social responsibility on the part of the individual.

The two pre-magga factors indicate the conditions for the arising and the support for the development of all the magga factors. The two factors deal with the influence and effect of society which can have on the individual. This two factors stress what one can get from one's natural and social environment through one's dealings and relations with it.

The importance of friendship with the good is stressed in Buddhism both at the level of individual perfection and at the level of the daily life of the common people. Thus, association with the good embodied in good people is a prerequisite of the good life not only in Buddhist social ethics, but in Buddhist thought and practice more generally.

The relationship between mental and character virtues or virtuous acts

Ignorance of this interconnection can lead to confusion and inappropriate action. This can be illustrated by two sets of virtues which occupy a central place in Buddhist social ethics (51).

a. The first of these sets is that of the Four Sublime States of Mind

1. Loving-kindness
2. Compassion
3. Sympathetic joy
4. Equanimity

b. The second set, the Four Bases of Social Harmony, or the Four Principles of Social Integration, consists of:

1. Giving, distribution, and charity
2. Kindly and beneficial words
3. Acts of help or service
4. Equality, impartiality, and participation

The centrality of the virtue of mindfulness

A virtue that plays a focal role in Buddhist ethics is appamada, rendered as heedfulness, diligence, and earnestness. It is found among the last words attributed to the Buddha: “All component things are subject to decay, work out (the goal or one’s own and others’ benefits) with earnestness”. It is also regarded as the basis or common ground of all virtues. Traditionally, it is defined as the presence of mindfulness. However, it can be seen as a combination of mindfulness and effort, energy, or exertion.

The issue of motivation

There are two kind of motivation or desire. One is wholesome and the other is unwholesome. The former is called the desire for the good or the desire to do well. This motivation is encouraged in Buddhist ethics. The latter can be defined as the desire for indulgence or the desire to gratify the self, often rendered as craving. The two kinds of desire should be clearly distinguished from each other, and the wholesome one should be studied more closely, brought into prominence and encouraged.

Therefore, thinking of Buddhism in the Bio-Psycho-Social Health model, ‘not to do evil’ and ‘to cultivate good’ lead to practice or biology part, ‘to purify the mind’ is connected to belief or psychological part, and pre-magga is related to social or community.

2.3.4 The Buddhism values measure

The Buddhist Values Measure was developed by Sowattanangoon, who is a Thai Buddhist. This instrument includes basic Buddhist principles using simple wording, such as the law of cause and effect, merit-making, the threefold training of morality, concentration, and wisdom, and the Middle Way. This instrument was utilized in order to examine the association between Buddhist values with medication and dietary self-care, healthcare use and diabetes control in 173 Thai patients with type two diabetes (13). As a result, higher scores for Buddhist values were significantly correlated with better self-care for medication and dietary, and higher repetition for doctor visit. Stronger Buddhist values were also significantly associated with a lower HbA1c. It is suggested that Buddhist values may promote diabetes self-care among Thai patients.

2.4 Mindfulness

Kabat-Zinn produced a 10-week Stress Reduction and Relaxation Program (SR&RP) for the self-regulation of chronic pain introducing mindfulness meditation, which has roots Theravada Buddhism, where it is known as satipatana vipassana or insight meditation (Nyanaponika), in Mahayana Buddhism (52).

SR&RP achieved statistically significant results comparing a control group of patients with traditional treatment protocols. It reduced measures of present –moment pain, negative body image, inhibition of activity by pain, and psychological symptomatology. Pain-related drug utilization decreased and activity levels and feelings of self-esteem increased (53).

Then, Kabat-Zinn et al. studied the effectiveness of a group stress reduction program based on mindfulness meditation for patients with anxiety disorders (54). 22 study participants with anxiety disorder or panic disorder participated in this 8-week program. Assessments, including self-ratings and therapists' rating, were obtained weekly before and during the program and monthly during the 3-month follow-up period. Significant reductions in anxiety and depression scores were analyzed after treatment for 20 of the subjects. The number of subjects experiencing panic symptoms was also substantially reduced.

Afterwards, Teasdale at el. demonstrated that the Kabat-Zinn's method of stress-reduction based techniques of mindfulness meditation is highly relevant to

prevention of depressive relapse (55). Then they summarized a relapse prevention program, which is Attentional Control Training (ACT) that integrates elements of mindfulness training with more traditional elements of cognitive therapy.

Then, they revised ACT to mindfulness-based cognitive therapy (MBCT) and evaluated it (56). Recovered recurrently depressed 145 patients were recruited to continue with treatment as usual or, in addition, to receive MBCT. Relapse/recurrence to major depression was assessed over a 60-week study period. For patients with 3 or more previous episodes of depression (77% of the sample), MBCT significantly reduced the risk of relapse/recurrence. For patients with 2 previous episodes, MBCT did not reduce relapse/recurrence. MBCT offers a favorable psychological approach to preventing relapse/recurrence in recovered depressed patients.

Brown and Ryan developed the measurement of mindfulness, which was named the Mindful Attention Awareness Scale (MASS) (15). It assesses individual differences in the frequency of mindful states over time. According to them, foundation of mindfulness is the present-centered attention-awareness, that is, the presence or absence of attention to and awareness of what is occurring in the present. Then, a research series was conducted in order to examine empirical links between mindfulness and well-being. Firstly, it was assessed whether mindfulness is associated with awareness of internal states with a lab-based paradigm in which the role of mindfulness was tested as a predictor of the degree of relationship between an implicit and self-reported (explicit) indicator of emotional well-being. Second,

concurrent associations of the MASS with measures of both self-regulation and well-being were examined. Thirdly, predictive relations between both trait and MASS-derived state measures of mindfulness and indicators of both self-regulated functioning and emotional well-being were examined. Finally, the importance of mindfulness to well-being was examined within an intervention paradigm in which changes in MASS-measured mindfulness were used to predict changes in mood and stress among a sample of patients with cancer who received training in mindfulness for stress reduction. Consequently, the MASS was shown to be a reliable and valid instrument for use in both college student and general adult population, and to differentiate groups with difference, in degree of mindfulness. Laboratory research evidenced that mindfulness is associated with expanded self-knowledge, a key element of self-regulation. Correlational studies with the MASS showed that mindfulness is a different form of awareness and attention that is associated with a number of well-being indicators. At last, clinical studies showed that the MASS not only predicts well-being outcomes but also has value in the study of the temporal and situational dynamics of self regulated behavior and well-being.

Shapiro et al. attempted to define potential mechanisms to explain how mindfulness affects positive change (57). They broke mindfulness down into 3 axioms as the fundamental components, which are intention, attention and attitude. Intention means enlightenment and compassion for all beings. Attention involves observing the operations of one’s moment-to-moment, internal and external experience. Attitude is the qualities one brings to attention, in other words, the orientation to experience, which involves curiosity, nonstriving and acceptance. Then,

Shapiro et al. proposed a model of the potential mechanisms of mindfulness, that is, the fundamental components leads to a significant shift in perspective called reperceiving. This shift is at the heart of the change and transformation affected by mindfulness practice. They hypothesize that multiple mechanisms may be facilitated by this shift, including (1) self-regulation, (2) values clarification, (3) cognitive-behavioral flexibility and (4) exposure.

Shapiro et al. evaluated effects on the MAAS and two distinct meditation-based interventions (58). College undergraduates were randomly arranged in Mindfulness Based Stress Reduction (MBSR; n=15), E. Easwaran's Eight Point Program (EPP; n=14) and a waitlist control (n=15). Pretest, posttest, and 8-week follow-up data were collected on self-report outcome measures. Compared to control group, participants in both treatment groups (n=29) showed increases in mindfulness at 8-week follow up. Further, increases in mindfulness mediated reductions in perceived stress and rumination. These outcomes suggest that distinct meditation-based practices can increase mindfulness as measured by the MASS.

Mindfulness based stress reduction (MBSR) has played an important role in introducing mindfulness practice to the field of psychology and medicine. Since, mindfulness has been applied widely into physiological and mental health areas. At the same time, Rapgay and Bystrisky noted that the efforts to integrate mindfulness into psychology resulted in an increasing questioning of mindfulness that goes beyond the initial positive efficacy studies resulting in several important questions being raised (59). Then they compared critical differences between classical and

modern versions of mindfulness (Table 2.1). In addition, the absence of an operational definition of mindfulness and the lack of differentiation between the features called attention and awareness and the interchangeable use of the two terms are raised.

Table 2.1 Differences between Modern Versions and Classical Mindfulness

Classical Mindfulness	Modern Version
Attention and introspective awareness are key defining features	Attention and acceptance are key defining features
Goal oriented	Without goals
Process and phase-oriented perceptual in nature	Not phase and process oriented cognitive in nature
Present, past and future experiences	Present moment experience
Attention and awareness training based	Not necessarily training based
Attention and awareness are differentiated states	Attention and awareness are not differentiated states
Active awareness	Non-reactive awareness
Simultaneous application of attention and awareness	Sequential application of attention and awareness
Mindfulness is free of preconceptions such as values	Mindfulness is value based such as active acceptance
No affective process	Affective processing

Bishop et al. proposed a two-component model of mindfulness (60). The first component is the self-regulation of attention so that it is maintained on immediate experience, thereby allowing for increased recognition of mental events in the present moment with skills in sustain attention, which would be required to maintain an awareness of current experience, and switching, which allow one to bring attention back to breath once a thought, feeling, or sensation. The second

component is the orientation to experience that is adopted and cultivated in mindfulness meditation practice. This orientation begins with a commitment to maintain an attitude of interest about where the mind wanders whenever it drifts away from the breath, as well as interest about the different objects within one's experience at any minute. All thoughts, feelings, and sensations that arise are initially seen as relevant and therefore subject to observation. Thus one is not trying to produce a particular state such as relaxation or to change what he or she is feeling in any way. Rather, the client is instructed to make an effort to just take notice of each thought, feeling, and sensation that arises in the stream of consciousness.

However, Brown and Ryan criticized the model of mindfulness that Bishop et al. proposed, incorporating (a) attention and awareness and (b) acceptance because Bishop et al. did not define these terms and often use them interchangeably (61). Then, Brown and Ryan defined these words. Awareness is the subjective experience of internal and external phenomena. Attention is a focusing of awareness to highlight selected aspects of that reality. Brown and Ryan also stated that, differing from sustained attention, mindfulness can be brought to bear on thought, emotions, and other contents of consciousness. Moreover, Bishop et al. emphasized the role of meditation in cultivating mindfulness (60), whereas, Brown and Ryan insisted that mindfulness is not merely a product of meditation but also an inherent, natural capacity of the human organism (61).

2.5 Social Support

People experience loneliness at some level in our lives, especially when they do not have any supports or connections they want. We focused on loneliness, which is the unpleasant experience that occurs when a person's network of relationships is felt to be deficient in some important way (62). There are three characteristics of loneliness. One is that it is a subjective experience. A second is that it involves negative effect. A third is that it is more strongly associated with qualitative than with quantitative characteristics of relationships (63).

It is also important to distinguish between loneliness and social isolation (64). Loneliness is a negative, subjective experience, whereas social isolation is the objective condition of not having ties with others.

There is common distinction between emotional and social loneliness (65, 66). Emotional loneliness arises in situation missing a close relationship, such as a spouse or a best friend, and not having a substitute. This feeling is characterized by intense feelings of emptiness, abandonment, and forlornness. Social loneliness is lacking a wider network of friends or acquaintances that can provide a sense of belonging, of companionship and of being a member of a community. This feeling may arise when people move to an area, where they are newcomer.

In general, explanations of loneliness are explored in three sets of factors (67). The first is relevant to social network characteristics: the number and the

quality of the relationships in which people are involved. For example, the unmarried are lonelier than the married. Those with small, unsupportive networks are lonelier than those who are actively involved in social networks. The second set of determinants refers to relationship standards: the preferences, expectations and desires for personal relationships. Loneliness arises when the relationship people have do not meet their standards. The third set relates to predisposing conditions: factors that might explain why people have lacks in their social networks. Poor self-esteem is one of them: people who lack confidence might be inhibited in their social interactions, and might not be attractive to others.

Social relationships are essential to well-being. Diener and Seligman found that every single respondent of their happy people study had excellent social relationships (68). Park et al. investigated the relationship between various character strengths and life satisfaction (69). Then they found that the interpersonal character strengths were the best predict life satisfaction.

On the other hand, lack of companionship predicts opposite problems. Hintikka et al. found that both men and women with fewer friends had higher levels of mental distress than men and women with more friends (70). Elderly individuals who do not have confidants and companions report lower well-being than those who do, even when demographic, health, and economic factors are controlled (71).

2.6 Situations of the Elderly in Thailand

2.6.1 National Policies and Program for the Elderly

Thailand established the National Elderly Council in 1982 to begin to address issues impacting the elderly (72). It was an incisive move before the ageing population in Thailand increased, but little progress was made. In 1997, the new Constitution of the Kingdom of Thailand devoted two sections to the elderly: one indicating that persons aged 60 years old or older who earn no income have the right to receive aid from the government; and another indicating that the government must support the elderly, the poor and disabled so that they can have a better standard of living. In 1999, under the pressure from the Office of the Prime Minister, the National Committee of Senior Citizens was established. This committee composed of delegates from various ministries, departments and organizations as well as knowledgeable persons from the private and public sectors. The Declaration of Thai Senior Citizens was also issued in 1999 and signified the commitment of the Prime Minister and representatives of all political parties in Thailand to elevate the standard of living of the elderly and to protect their rights. In 2002, the United Nations convened the Second World Assembly on Ageing in Madrid, Spain and Thailand developed its Second National Plan for Older Persons (2002-2021), because it was ready to improve the First National Plan. Then, the Elderly Act in 2003 and Healthy Thailand in 2005 focusing on promoting health of the elderly were passed. The Second National Plan for Older Persons in Thailand is being successfully implemented, especially in the following areas: (a) promoting a positive attitude toward elderly persons, (b) promoting health for the elderly, and (c) social

protection for the elderly. Thai government should keep playing an active role in facilitating the implementation and in gaining commitments from all stakeholders (public, private, municipalities) due to achieve the aims of the plan.

2.6.2 Financial Situation of the Elderly

Sunwanrada reported the Thai elderly financial situation (73). Traditionally, family members, especially children, have been the most important source of financial security for the elderly in old-age. However, their living and/or financial situation is becoming worse. According to the Survey of the Older Persons in Thailand in 1994 and 2007, the proportion of the elderly population which lives alone increased from 3.6% to 7.7%. In the 2007 survey, some 43.3% of those living alone faced a financial problem. Of all the elderly, 31.3% do not have savings or any financial assets, and 34.1% have an annual income of less than 20,000 baht. Their main income source for 52.3% of the elderly in 2007 was financial support from their children, followed by income from working (28.9%), financial support from their spouses (6.1%), pension or savings (4.4%), and income from savings or property (2.9%).

Future generations will face the similar or more serious problems than the current elderly. Of employed persons at this moment, approximately one-third have been financially insured in the old-age life stage under mandatory schemes such as the Social Security Fund for private employees and the Government Pension Fund for government officers. The remaining two-third, mostly informal sector workers, have not been covered under a compulsory scheme. The Old-Age

Allowance System provides minimal support for the uninsured and underprivileged elderly. Three options are showed to reform pension system in Thailand: (1) the promotion of the establishment of a community-based social welfare fund; (2) the expansion of the coverage of the old-age allowance system; and (3) the establishment of a national pension system to cover employed persons who do not currently receive coverage.

2.6.3 Family Support

Knodel et al. reported that intergenerational relations between older parents and their children remain pervasive in Thailand. Over 70% of older persons live with or next to children, even though the elderly living alone or living only with a spouse increased during the last two decades from 11% to almost 25% (74).

2.6.4 Health and Health Care System

Due to medical progress and improvement in the delivery of health care services, people's lives have lengthened in Thailand. With the current population of 67.0 million (September, 2009), Thailand has seven million older adults, with a life expectancy at birth for males and females of 69.5 and 76.3 years respectively (2008). However, Kespichayawattana et al. stated that there has been growing demand for long-term care and nursing home services for frail elderly, but the government has not organized well these services as showing that there is no specific ministerial regulation for nursing homes (75). Most of the elderly in Thailand who need long-term care receive informal care provided by their families and relatives as well as communities. Most of rehabilitative and nursing homes, which are organized by

the private sectors, aim to serve the families of middle to high economic status. It is, therefore, crucial to establish effective home and community-based care to support families and relatives who provide care to older persons and to keep the number of the elderly who need to be stayed at institutional care as low as possible.

2.6.5 Thai Elderly Perspective on Well-Being

Assantachai et al. studied quality of life of the elderly nation-wide in Thailand (76). 1811 individuals from 66 provinces, who attended an elderly club, were recruited to respond to a structured questionnaire with detailed instructions. The outcome showed 61.4 percent had a good quality of life. The major factors determining a poor quality of life were socioeconomic background in the northern region, less exercise and joint pain in the eastern region, and diabetes mellitus in the western region.

Tongprateep investigated the essential elements of spirituality concerning rural Thai elderly (77). The research was conducted in order to understand how they experienced and described spirituality in their daily lives through face-to-face interviews with 12 rural Thai elderly living in the Nakohrm Prathom Province. Through the process of hermeneutic phenomenological data analysis, the findings were classified into three categories and nine themes. The categories are spiritual beliefs, religious practices and consequences of the spirituality. The category of spiritual beliefs consists of two themes, which are the law of karma and life after death. The category of religious practice is composed of four themes, which are merit making, observance of moral precepts, gratitude and caring in the family and

meditation. The category of consequences of spirituality includes three themes, which are coping with the vicissitudes of life, being hopeful and having peaceful mind.

Ingersoll-Dayton et al. compared psychological well-being for elderly in Thai with the situation in the United States focusing on the views of Thai elderly using qualitative research methods (78). In-depth interviews and focus group discussions were conducted with 67 Thai people aged 60 and over in Central Thailand. Transcripts were content analyzed resulting in the identification of five dimensions of well-being, which are harmony, interdependence, acceptance, respect and enjoyment. When compared to the Ryff's Western conceptualization of well-being, the western dimension is self-oriented, but, in contrast, the Thai one is other-oriented and interactions with others.

Gray at el. examined the level of happiness of the Thai elderly aged 55 and over in Chai Nat province by face-to-face interviews (79). The factors both external and internal affecting the level of happiness were also studied. It was found that mean happiness was slightly above a feeling of "neutral." According to multiple regression analyses, external factors including economic hardship, living arrangements, functional ability, perceived social environment and consumerism clearly influenced the level of happiness. However, the internal factor, which was a feeling of relative poverty when compared to their neighbors, is the strongest predictor of happiness. Controlling for demographic and all external factors, the respondents who did not feel poor showed the highest level of happiness compared

to those who felt as poor as or poorer than their neighbors. This is self-interpreted as a feeling of contentment with what one has, which has been influenced by Thai culture, which is pervaded by Buddhism.

Nanthamongkolchai et al. conducted a cross-sectional survey to study self-esteem and related factors of 270 elderly persons (80). The data were gathered by an interview questionnaire in Nakhon Sawan province. The results showed that more than half of the elderly (65.6%) had a moderate level of self-esteem, followed by a low level (19.3%) and a high level (15.1%). The factor with highest predictive power of self-esteem was social support. In addition, participation in social activities, personality, and participation in family activities could significantly predict self-esteem of the elderly by 58.2%.

Othaganont studied Thai elderly life satisfaction in order to determine whether it depends on their daily living practice and to compare the daily living practices found among life-satisfied and –dissatisfied elderly in their physical, mental, social, and economic aspects of life (81). A cross-sectional comparative study of Thai elderly who lived in four provinces of eastern Thailand was conducted with individual interviews. The instruments used in this study were two sets of structured interviews: the one was for daily living measurement composed of physical, mental, social, and economic aspects; the other was for life satisfaction measurement composed of physical and biological environment, physical and mental health, economics, and social relationship. A two-tailed dependent t test was utilized to reveal mean scores both overall and for each domain of the daily living practices

of the participants. It was realized that the life satisfaction group of elderly had significantly higher scores than their dissatisfaction group. The results suggested the important things for Thai elderly for their life satisfaction were dietary habits, regular fitness, seeking knowledge toward health, religious activity, good relationships and well-planned income and expenditure.

2.7 Related Study

There is extensive research into the relationship between religious and subjective well-being. However, much has been conducted in Western countries. For instance, Witrer et al. undertook a meta-analysis study of 28 studies concerning religion and SWB (82). They found that religion was positively associated with SWB and that a positive relationship between religion and SWB was stronger among the older than the younger. Ellison showed that people with stronger religious faith have higher life satisfaction and happiness than others (83).

In terms of relationship between religious and SWB in Thailand, Yiengprugsawan et al. calculated the Personal Wellbeing Index (PWI) and examine the level of life satisfaction of Thai university students (84). The overall PWI was 70.0 on a scale from 0 to 100 which was consistent with Western population. Overall ‘satisfaction in life as a whole’ had a mean of 75.7 on a scale from 0 to 100. ‘Standard of living’ was the largest contribution to overall ‘satisfaction in life as a

whole'. 'Spirituality and religion' also contributed significantly to overall 'satisfaction in life as a whole'.

Hence, the hypothesis stated that Buddhist value was positively associated with life satisfaction of Thai elder Buddhists.

2.8 Summary

It is not easy to evaluate how much one commits to religion or philosophy. In this study, the model of religion and bio-psycho-social health was utilized in order to examine the relationship between life satisfaction and Buddhism values, mindfulness, and social support. This conceptual model links to three dimensions of religious experience, that is, religious practices, spiritual beliefs, and faith community. In Buddhism, these three dimensions are also important for the faith. The Noble Eightfold Paths, which is the basic teaching of Buddha, consists of wisdom, morality, and concentration. These three components meet with religious practices and spiritual beliefs. Pre-requisite of the Noble Eightfold Paths is composed of two components relating to society and association with good people. Thus, this pre-requisite meets with society dimensions of the model.

The dependent variable for this study was life satisfaction, which was used to examine well-being of the elderly. Life satisfaction belongs to global life judgments. Respondents can decide the extent to which they are satisfied with their

own lives according to own decision. The global judgments are different from domain satisfaction, which is decided with summation of some major domains.

Independent variables were Buddhism values, mindfulness, and social support, which meet with religious practices, spiritual beliefs, and faith community of the model, respectively. Buddhism values were examined with the Buddhist values measure. This measure assessed how much one agrees with Buddhism teachings. Mindfulness was measured with the Mindful Attention Awareness Scale. Mindfulness improves by both meditation and other Buddhism practices so that it was assessed for the practice dimension of the model. Social support was assessed divided two parts, that is, emotional and social loneliness.

Social support for the elderly in Thailand is developing. Medical service is available for free. Monthly pensions are provided to the elderly. However, they are not sufficient to survive so that many elder people rely on their families for their lives. On the other hand, their well-being flourishes pervaded with Buddhism.

There is extensive research about the positive relationships between religions and health or well-being. However, such research was conducted more in Western countries than in Eastern countries. At the same time, Buddhism psychology, such as mindfulness, has been also studied long in West. Then, it has been utilized for both mental and physical problems. Therefore, Buddhism may influence positively life satisfaction of Buddhist people in Thailand. This study was conducted to confirm this hypothesis.

CHAPTER III
RESEARCH MEHODOLOGY

3.1 Study Design

This was a cross-sectional descriptive study aimed to assess the extent to which the elderly of Phukhiao district, Chaiyaphum province, Thailand, were satisfied with their lives and its related factors.

3.2 Study Population

The study population was 13,377 Thai elderly who lived in Phukhiao district, Chaiyaphum Province, Thailand, December 2009 (85).

3.2.1 Inclusion Criteria

1. Elderly people who were aged 60-year old or over and lived in Phukhiao district, Chaiyaphum Province, Thailand in January 2010.

2. Those who could communicate in Thai language

3. Those who were willing to participate in the study

3.2.2 Exclusion Criteria

1. Elderly people who could not respond to the questionnaire because of cognitive, physical or mental problems

2. Those who were not Buddhist

3.3 Sample Size Estimation

The sample size was calculated by applying the following formula (86):

$$n = \frac{z^2 NP(1-P)}{z^2 P(1-P) + (N-1)E^2}$$

$$n = \frac{1.96^2 * 13377 * 0.5 * 0.5}{1.96^2 * 0.5 * 0.5 + 13376 * 0.07^2}$$

$$n = 193.18$$

Where, n=estimated sample size

Z=standard normal score at 95% confidence interval=1.96

p=proportion of high life satisfaction of the elderly=0.5

As there was no previous study, p was supposed to equal to 0.5 to gain a maximum sample size.

E=Error between population value and sample value that the researcher accepted =0.07

N=study population size in Phukhiao district in January, 2010 =13377

The sample size was increased by 10% to ensure that it would be sufficient for the study if any missing or incomplete data occurs. Thus, the required sample size was at least 214.

3.4 Sampling Technique

Multi-stage cluster sampling was employed as an appropriate sampling technique. Phukhiao District was divided into eleven sub-districts. Every sub-district was quite similar to others in terms of the life satisfaction of the elderly, culture and living environment. One sub-district named Khok Sa-at was purposively selected from the eleven sub-districts in Phukhiao District due to cooperation and representativeness. There were twenty-one villages in Khok Sa-at sub-district. Then, four villages in the Khok Sa-at sub-district were chosen for community research areas. The villages were handled by a health center named Phudin. Consequently, the elderly living in these villages who met the inclusion criteria were included in the study.

3.5 Research Instrument

The data were collected using a questionnaire, which was combined standard scales related to factors affecting Buddhism, mindfulness, social support and life satisfaction of the elderly. The questionnaire was composed of five parts as follows.

Part one. Socio-Demographic Characteristics of the Elderly

This part addressed the participants' background, including age, sex, family structure, and academic background as well as their health, financial and accommodation situations.

Part two. the Buddhist Values Measure (BVM)

This measured and assessed the importance of Buddhist Teachings in their daily lives. This instrument was composed of eight questions. Each question was rated on a 5-point scale: strongly disagree, disagree, uncertain, agree, or strongly agree. The total score of the eight questions was used to represent the importance of Buddhist values. A high score indicates greater importance of Buddhist values.

This measure was used for Thai both male and female type 2 diabetes patients aged from 33 years old to 75 years old for a previous research (13, 14).

Part three. the Mindful Attention Awareness Scale (MASS) (15)

This scale was translated into Thai and assessed individual differences in frequency of mindful states over time focusing on the presence or absence of attention to and awareness of what is occurring in the present. MAAS respondents indicated how frequently they had the experience described in each statement using a 6-point scale from 1 (almost always) to 6 (almost never), where high scores reflect greater frequency and there were more mindfulness. In order to improve the reliability and validity of research, back translation was done by Assistant Professor Dr. Salee Keiwkarnka.

Confirmatory factor analysis of this scale was conducted with college students and general people aged from 18 years old to 77 years old in the United States.

Part four. the 6-item De Jong Giereld Loneliness Scale (16)

This scale was translated into Thai and measured a person's emotional and social loneliness. For the six items the answer category was composed of 'yes', 'uncertain' and 'no'. High score means less loneliness, in other words, much social support, whereas low score means much loneliness or less social support.

The reliability tests were conducted for those under 45 years old, those aged 45 to 64 years, and those aged 65 and over in Nederland.

Part five. the Temporal Satisfaction with Life Scale (TSWLS) (12)

This scale was produced modifying the satisfaction with life scale (87) to include temporal dimension within measures of life satisfaction.

This scale was translated in Thai and assessed an individual's past, present, and future life satisfaction. The scale was composed of 15 items, including five items each from the past, present, and future time frames. The response scale was used with a range from 1 (strong disagree) through 7 (strong agree). All items were positively keyed; therefore scoring the TSWLS involved a simple addition of the 15 items. Then, high score means high life satisfaction, whereas low score means low life satisfaction.

The relation among the three time frames and the original satisfaction with life scale (87) was examined. The original satisfaction with life scale was positively correlated .72, .92, and .59 with the past, present, and future time frames, respectively.

3.6 Ethics

Before conducting the data collection, the researcher gained the ethics approval from the Ethics Committee of Mahidol University (COA. No. MU-IRB 2009/314.0812). The researcher was cautious of ethical matters. During the data collection all participants were treated with dignity. The potential benefits and effects which might flow to the participants were fully explained by the researcher. Prior to collecting information from each participant, under the researcher's supervision, the data collectors explained the study objectives, the utilization of the data, and the rights of the participants to participate or withdraw from participation of the study. It was explained that the information gained would be kept confidentially and it would be utilized only in this study. The participants were invited to ask any questions in relation to the study. During the process of data collection when there were any signs of participants showing reluctance to answer questions, the interviews were discontinued. The participants also had right to skip some questions.

3.7 Validity and Reliability

Before conducting the data collection, the questionnaire was submitted to an expert in this research field in order to confirm the translation of the content. The questionnaire was then revised according to the comments and the suggestions given by the expert.

The questionnaire was tried out on 30 Thai elder persons, who shared similar characteristics to the target population of the study, in Kaset Sombun district which is next to the district of the study site. Then the internal consistencies of the questionnaire were calculated with Cronbach's Alpha Coefficient. The results were as follows:

Table 3.1 Reliabilities of the questionnaire

	Variables	Reliability coefficients (n=30)	Reliability coefficients (n=203)	Range of total score
1. Life satisfaction				
1.1	Total score [a]	.70	.90	15-105
1.2	Past subscale [a]	.50	.81	5- 35
1.3	Present subscale [a]	.43	.75	5- 35
1.4	Future subscale [a]	.42	.77	5- 35
2. Buddhist value [b]		.90	.81	5- 40
3. Mindfulness [c]		.84	.90	15-90
4. Social support [d]		.17	.62	6-18
4.1	Emotional subscale [d]	.11	.51	3-9
4.2	Social subscale [d]	.42	.60	3-9

Note: [a] Range of the scale = 1-7.

[b] Range of the scale = 1-5.

[c] Range of the scale = 1-6.

[d] Range of the scale = 1-3.

Results of the pre-test were that the reliability of social support was less than 0.70 and that others, life satisfaction, Buddhist value, and mindfulness, were 0.70 or over 0.70. Thus, we changed some wordings of social support holding on the advice of experts and local nurses in order to understand the questions of social support part easily.

3.8 Procedure of the Data Collection

After getting approval from the ethics committee of Mahidol University, the data were collected by the researcher as follows.

1. A formal letter from the AIHD was sent to the director of the district health office in Phukhiao district asking permission to collect data from the elderly.

2. After obtaining the permission of the director to collect data, the advisor acting as coordinator contacted the Phudin health center, and explained the purposes and process of this study, and the protection of the legal and ethical rights of the elderly.

3. First, the researcher visited the Phudin health center in order to explain the purposes and process of this study, and the protection of the rights of the elderly to health center staff. Then, one practitioner nurse became the main interviewer and three other nurses became complementary interviewers in order to collect data from the elderly.

4. The researcher trained the nurses explaining the criteria for each question. Then, the researcher and the nurses started interviewing the elderly at the

health center and in villages.

5. At the health center, the main interviewer and the researcher interviewed the elderly who visited the health center in order to receive medicine or to undergo regular medical checkups.

6. When visiting a village for interviews, the main interviewer made an appointment with a village health volunteer to help us call the elderly in to the interview. After we got to the village, the health volunteer announced asking the elderly participation in an interview. Then, nurses interviewed the gathered elder persons with the researcher.

7. Before requesting the elderly to answer the questionnaire, the nurses explained the purposes and the process of this study as well as the protection of their rights. After gaining the elderly consented, the researcher and nurses interviewed them. The time to complete this questionnaire was about 15 - 20 minutes.

8. Some interviews were conducted with two persons simultaneously or with a person in crowd of people so that social desirability of respondents may be contaminated.

3.9 Data Analysis

The collected data was coded with coding software named Epi-data and was analyzed with statistical software named Minitab version 13.

Descriptive statistics was conducted to describe the distribution of all the variables. The presented results were in forms of median, quartile deviation, frequency and percentage.

Analytical statistical analyses, the Pearson Correlation analyses were engaged to identify the associations between the independent and dependent variables. Multiple regression was also utilized to determine association between independent variables and dependent variable.

CHAPTER IV
RESULTS

This research was a cross-sectional study aimed at describing life satisfaction of the elderly and examining the relationship between their life satisfaction and Buddhist Values, mindfulness, and social support. The sample consisted of 203 elder persons who lived in Phukhiao district, Chaiyaphum province, Thailand. The data collection was conducted using a structured questionnaire in January, 2010. The study results are presented in the form of tables and separated into three main parts as follows.

1. Socio-demographic characteristics of the elderly
2. Study factors and life satisfaction
3. The relationship between life satisfaction and study factors

4.1 Socio-Demographic Characteristics of the Elderly

Socio-demographic characteristics of the elderly were shown in Table 4.1. The results were obtained from 203 elder persons composed of 144 females (70.94%) and 59 males (29.06%). The largest group (59.61%) was aged between 60 to 68 years old. The ages ranged from 60 years old to 92 years old with a median age of 66 years old and quartile deviation of 5.0 years. Nearly one-third of the elderly

(30.54%) had more than 4 children. Only six persons (2.96%) had no children. The majority of the elderly (75.86%) lived in extended families while nine persons (4.43%) lived alone. Over half (56.16%) of the elderly were retired or were housewives. The major occupation was farmer (38.92%). None of the elderly engaged in professional work. Their education levels were mainly lower primary school or no education (74.38%). Only four persons (1.93%) completed secondary school. None of the elderly took higher education than secondary education. Over half of the respondents (53.69%) felt their health situations good or excellent. Five elder persons (2.46%) felt their health severe bad. The majority of the elderly (78.81%) felt their financial situations were sufficient or plentiful good. Nine persons (4.43%) believed their financial situations were poor. Most of the elderly (88.67%) had a positive impression concerning their own accommodation. Only one person (0.49%) felt their house was in a poor condition. Nearly all of the elderly (96.06%) dwelt in their own houses. No one rented a house.

Table 4.1 Number and Percentage of Socio-Demographic Characteristics of the Elderly

Socio-demographic Characteristics			Number (n=203)	Percentage
Gender				
Male			59	29.06
Female			144	70.94
Age (years)				
60 – 68			121	59.61
69 – 77			62	30.54
78 – 86			18	8.87
>87			2	0.99
Median=66.00	Q.D. =5.0	Minimum=60		Maximum=92
Number of children				
0			6	2.96
1			19	9.36
2			34	16.75
3			49	24.14
4			33	16.26
>5			62	30.54
Median=3.00	Q.D. =1.5	Minimum =0		Maximum=9
Family structure				
Alone			9	4.43
Nuclear			40	19.70
Extended			154	75.86
Occupation				
Non-professional (Casual laborer)			8	3.94
Farmer			79	38.92
Volunteer			1	0.49
Others			1	0.49
Retirement / Housewife/Unemployment			114	56.16

Table 4.1 Number and percentage of Socio-demographic Characteristics of the elderly (cont.)

Socio-demographic Characteristics	Number (n=203)	Percentage
Education		
None	17	8.37
Lower primary education	134	66.01
Primary education	48	23.65
Secondary education	4	1.93
Subjective Health situation		
Excellent	21	10.34
Good	88	43.35
Uncertain	21	10.34
Not good	68	33.50
Severe	5	2.46
Subjective Financial situation		
Rich	5	2.46
Enough	155	76.35
Uncertain	3	1.48
Not Enough	31	15.27
Poor	9	4.43
Comfort of accommodation		
Excellent	41	20.20
Good	139	68.47
Uncertain	4	1.97
Not Enough	18	8.87
Poor	1	0.49
Ownership of accommodation		
Owner	195	96.06
Staying with relatives and no pay	8	3.94

4.2 Study factors and Life Satisfaction

4.2.1 Buddhist Values, Mindfulness, and Social Support

Both scores and percentage of Buddhist values, mindfulness, and social support are shown in Table 4.2. Percentages of the elderly by items of Buddhist values, mindfulness, and social support are shown in Tables 4.6-4.8 in the Appendices. Table 4.2 shows that most of the elderly (82.76%) scored from 38 to 40 on Buddhist values. In terms of mindfulness, most of the elderly (75.86%) also scored highly ranging from 79 to 90. Large percentage of the elderly (88.18%) obtained remarkable marks from 16 to 18 on the Social support. As for its subscales, a larger percentage of the elderly achieved full score on the Social sub-scale (92.61%) than on the Emotional sub-scale (69.46%).

Table 4.2 Descriptive Statistics of Independent Variables

Score		Number (n=203)	Percentage
Buddhist values			
32– 34		9	4.43
35 – 37		26	12.81
38 – 40		168	82.76
Median=40.0	Q.D. =0.5	Minimum =32	Maximum =40
Mindfulness			
43 – 54		6	2.96
55 – 66		12	5.91
67– 78		31	15.27
79 – 90		154	75.86
Median=86.0	Q.D. =5.0	Minimum =43	Maximum =90
Social support			
Total score			
10 – 12		11	5.42
13 – 15		13	6.40
16 – 18		179	88.18
Median=18.0	Q.D. =1.0	Minimum =10	Maximum =18
Social loneliness			
5 – 6		7	3.45
7 – 8		8	3.94
9 – 10		188	92.61
Median=9.0	Q.D. =0.0	Minimum = 5	Maximum = 9
Emotional loneliness			
3 – 5		12	5.91
6 – 8		50	24.63
9 – 11		141	69.46
Median=9.0	Q.D. =1.0	Minimum = 5	Maximum = 9

4.2.2 Life Satisfaction

Descriptive statistics of life satisfaction are shown in Table 4.3. Percentages of the elderly by items of life satisfaction are shown in Table 4.6 in the Appendices. Table 4.3 shows that over half of the elderly (51.23%) felt highly satisfied with their lives scored from 96 to 105 on the Temporal Satisfaction with Life Scale. In terms of the sub-scales, most of the elderly (82.76%) scored high ranging from 29 to 35 on the past scale. As for the present scale, the largest group was the scores ranged from 31 to 34 (39.41%). A large number of the elderly (60.10%) achieved the score from 31 to 35 for the future scale.

Table 4.3 Descriptive Statistics of Life Satisfaction

Life satisfaction Score		Number (n=203)	Percentage
Total score			
44– 56		2	0.99
57 – 69		1	0.49
70 – 82		15	7.39
83 – 95		81	39.90
96 – 108		104	51.23
Median=96.0	Q.D. =7.5	Minimum=44	Maximum=105
Past sub-scale score			
5 – 10		1	0.49
11 – 16		1	0.49
17 – 22		6	2.96
23 – 28		27	13.30
29 – 35		168	82.76
Median=33.0	Q.D. =2.5	Minimum= 5	Maximum=35
Present sub-scale score			
19 – 22		5	2.46
23 – 26		9	4.43
27 – 30		49	24.14
31 – 34		80	39.41
35 – 38		60	29.56
Median=32.0	Q.D. =2.5	Minimum=19	Maximum=35
Future sub-scale scores			
11 – 15		1	0.49
16 – 20		0	0.00
21 – 25		7	3.45
26 – 30		73	35.96
31 – 35		122	60.10
Median=32.0	Q.D. =2.0	Minimum=11	Maximum=35

4.3 The relationship between life satisfaction and the study factors

4.3.1 Pearson's correlation

Pearson's correlation analysis was used to determine any significant relationship between life satisfaction and the study factors, including Buddhist value, mindfulness, and social support. The results are revealed in Table 4.4.

The following study factors were statistically significantly related to life satisfaction both overall and on the sub-scales: Buddhist values, mindfulness, and social support (P-value<0.01). Mindfulness was also significantly correlated with both Buddhist values and social support (P-value<0.01). However, there was no significant association between Buddhist values and social support.

Table 4.4 Intercorrelations of the Study Variables

Variables	**1.1**	**1.2**	**1.3**	**1.4**	**2**	**3**	**4.1**	**4.2**	**4.3**	**5**
1 Life satisfaction										
1.1 Total score	1									
1.2 Past subscale	----	1								
1.3 Present subscale	----	----	1							
1.4 Future subscale	----	----	----	1						
2 Buddhist value	.272**	.220**	.295**	.211**	1					
3 Mindfulness	.369**	.281**	.319**	.387**	.19**	1				
4 Social support										
4.1 Total score	.266**	.194**	.248**	.272**	.111	.387**	1			
4.2 Emotional subscale	.264**	.177*	.249**	.286**	.105	.456**	----	1		
4.3 Social subscale	.158*	.143*	.142*	.131	.075	.099	----	----	1	
5 Age (year)	-.021	-.002	-.063	.004	-.034	-.022	-.051	-.030	-.066	1

*$p < .05$ **$p < .01$

Note: n = 203

4.3.2 Multiple Regression Analysis

Multiple regression was utilized in order to identify how study factors related to life satisfaction of the elderly. The regression model adjusted for age, subjective health situation, subjective finance situation, and social support. Table 4.5 shows there is an estimate of the total variance in the life satisfaction predicted by all the study factors taken together (R^2adj=19.7%). Controlling other variables in the model, if the score of Buddhist values increases 1 point, the score of life satisfaction increases 1.06 point. In addition, on the same level of social support, subjective health and financial situation if the elderly have one point score of mindfulness higher, their score of life satisfaction increases 0.26 points. The more mindfulness the elderly have, the more satisfaction in life they gain.

Table 4.5 Multiple Regression Analysis between Study Factors and Life Satisfaction

Factors	b	t	p-value
Constant	17.67	1.19	0.235
Age (year)	0.01	0.14	0.890
Subjective Health Situation (1=Excellent or Good)	2.19	1.66	0.098
Subjective Finance Situation (1=Rich or Enough)	-3.57	-2.26	0.025*
Social support	0.9	2.33	0.021*
Buddhist value	1.06	3.26	0.001**
Mindfulness	0.26	3.65	<0.001***
R-Sq = 22.1%	R-Sq (adj) = 19.7%	Se = 8.52	n=203
	*p < .05	**p < .01	***p < .001

CHAPTER V
DISCUSSION

According to both the methodology and the result of this study, the discussion part is arranged into 2 sections: the research results and the research methodology.

5.1 Discussion of the Research Results

The study result was discussed in terms of life satisfaction and relationship between life satisfaction and study factors.

5.1.1 Life Satisfaction

The results of the current study supported reports that most people have high subjective well-being including life satisfaction. Diener and Diener's study involving 31 nations, fairly industrialized countries, revealed that 63% of men and 70% of women reported positive levels of life satisfaction (88). Biswas-Diener et al. reported positive levels of well-being in smaller, non-industrialized societies such as the Maasai in Kenya, the Inughuit in Greenland, and the Amish in the U.S (89).

What were the reasons for the fact that most of the elderly in Phukhiao were satisfied with their lives? One of the reasons might be that their basic needs were fulfilled at their levels. According to the results, most of the elderly positively responded to their accommodation and financial situation. In other words, they had enough because their expectations and desires were low.

In addition, most of them also felt positively against loneliness. Baumeister and Leary suggested that the need to belong or to have close and long-term social relationship is a fundamental human need, and that well-being depends on this need being well met (90). They also mentioned that the role of belongingness is also apparent in religion (90). Therefore, it is possible that Buddhism tighten their relationship in a community, and contributes to their life satisfaction.

Moreover, as Biswas-Diener et al. mentioned (89), most people are happy is consistent with earlier work on the Pollyanna Principle, which was reviewed by Matlin and Gawron (91). They described the tendency for people to agree with positive statements describing themselves. When we collected data, many of the elderly showed positive attitudes. It may be their character this principle.

On the other hand, there were a few people who seemed to be unhappy or have difficulty in their lives. However, they also responded their satisfaction with life, even though their subjective life situations were not good. The reason might be that they consciously or unconsciously follow their norms, such as acceptance and

tolerance. Their feelings were negative, but they could not admit that. Thai culture is a collectivist culture (92). Then, Suh et al. found that norms and emotions were equally strong predictors of life satisfaction in collectivist cultures (93). Therefore, when the elderly judged their own life satisfaction, following their standard idea or norm, they might think that they should accept their lives no matter how they were. Then this acceptance turned to satisfaction and they replied that they were satisfied with their lives.

Another possibility is that an elder person who looked unhappy might not be satisfied with his or her own life. However, a Buddhist goal is not only one's own welfare but also others' welfare and welfare of both oneself and others, mentioned earlier, the elder person might think that his or her life was not good, yet their lives in a community were not so bad. Then, he or she was not satisfied with own personal life but their life as a community. Therefore, his or her answer was satisfaction.

5.1.2 Relationship between Life Satisfaction and Study Factors

The results showed that there were significant correlations between life satisfaction and Buddhist values, mindfulness, and social support. These results were in accordance with the result of Brown and Ryan (15) for mindfulness, and other studies for social support. Thus, the results are in line with the hypothesis that Buddhist values, mindfulness and social support are positively associated with life satisfaction of the elderly in Phukhiao district, Chaiyaphum province, Thailand. How do three independent variables relate to their life satisfaction?

The Buddhist values measure examined how much the elderly agreed to basic and fundamental Buddhist teachings, such as suffering, doing good, making merit, the Middle way, and so forth. Then, as they revealed high agreement, it would be possible that they follow and put the teaching into practice. Thus, by means of accepting their problems owing to aging and living situations, they could relieve their sufferings. As they had already aged, it was natural for them to lose a spouse and close friends so that they could accept it. They would also live their lives of peace making good relationships with each other in a community by doing good and following the Noble Eightfold Path.

Enhancement of mindfulness might make their minds attentive and improve mental function including self-regulation, which makes their behaviors and lifestyles healthier. Then mindfulness might reduce physical problems, such as pain, and mental problems including anxiety and depression. Their attentive minds also might contribute to a cooperative and harmonious community.

If the elderly commit to their own society, they can make it better and supportive. A supportive society might provide them with a spirit of mutual assistance, useful information for their life, and pleasure. These products of a social network might prevent or reduce loneliness, anxiety, and other negative mindsets.

Buddhist values, mindfulness, and social support are interrelated to each other and each factor contributes to the three aspects of their life, that is, the physical, and mental, and social aspects. Then, as mentioned above, Buddhist belief, practice,

and society might induce their life satisfaction, which is not only individual satisfaction but also their own satisfaction.

5.2 Research Methodology

The research type for this study was cross-sectional, quantitative, and descriptive, analyzed. This research type is appropriate for this study because its objectives are to describe socio-demographic characteristics of the participants, to describe study factors, and to analyze the relationship between life satisfaction and other study factors.

5.2.1 Sample

The sample was composed of 203 elder persons living in Phukhiao district, Chaiyaphum province who met inclusive criteria. Multi-stage cluster sampling technique, which was used for this study, was appropriate under circumstances of limited research budget and period. However, male-female ratio was uneven because the data collection was conducted during daytime when many male persons were working.

5.2.2 Research Instrument

In this study, a structured questionnaire was utilized for data collection. This questionnaire was composed of five parts, which were socio-demographic part, Buddhist values part, mindfulness part, social support part, and life satisfaction part.

Each part except for socio-demographic part was ready made questionnaire.

Buddhist values part, mindfulness part, and social support part corresponded to beliefs, practice, and community of the model of religion and bio-psycho-social health, respectively. Mindfulness may not be suitable for the practice of the model because mindfulness is closer to a psychological aspect. It might have suitable to assess practical and concrete matters, for example, the frequency of making merit, the number of times going to a temple. However, this study concerned physical limitations of the elderly. It is natural for them to have physical problems, which restrict their physical activity. It might be possible that they could not go to a temple against their wish. Furthermore, Buddhist practices are not only physical activities but also mental activities, like concentration of Magga. Then, the elderly conduct the Noble Eightfold Path in daily life so that their mindfulness would improve. That is the reason for use of mindfulness. This matter should be considered more.

The pretest was conducted prior to implementation of the data collection, the reliability of all parts, except socio-demographic part, were tested on 30 elder persons in a district next to the study site with similar characteristics. The reliability was 0.90 for the Buddhist value part, 0.84 for the mindfulness part, 0.17 for the social support part, and 0.70 for the life satisfaction part. Reliability, except for the social support, was higher than 0.7 and these were acceptable. However, the reliability of the social support was less than 0.7 because this part had only six questions and each question had only three choices. According to Gierveld, the

original reliability was 0.71 with 2,945 participants (16). In data collection, this reliability increased to 0.62 with 203 participants. Therefore, the problem was due to the number of items. This 6-item scale was not suitable for a small sample size. Other standard tools for measuring social support or loneliness should have been considered such as the 11-items De Jong Giereld loneliness scale (16) and UCLA loneliness scale (94).

5.2.3 Data Collection

Data was collected through interviews by local nurses using a structured questionnaire and the local dialect. One nurse took a major role in the interviews. She conducted the interviews every time and interviewed over half of all participants. Another three nurses conducted some interviews. The researcher always attended and supervised the interviews and checked the questionnaires after interviews immediately. The nurses had no research experience but questioned patients in daily work so that they were competent interviewers in this study.

5.2.4 Statistical Analysis

The characteristics of the participants and study factors have been described. Analyses of the relationship between life satisfaction and other study factors were conducted with correlation and multiple regression analysis. Two important assumptions of Multiple regression analysis were tenable: normality and homoscedasticity (see Appendix D Figures 5.1-5.2).

CHAPTER VI
CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This cross-sectional study examined whether Buddhist values, mindfulness, and social support were positively associated with life satisfaction of the elderly in Phukhiao district, Chaiyaphum province, Thailand. Two hundreds and three local residences aged sixty years old or over participated in the study. The data collection was conducted in Phukhiao district in January 2010.

The participants were interviewed by local nurses with the researcher utilizing a questionnaire in order to identify their socio-demographic characteristic, Buddhism factors, and life satisfaction. The questionnaire was composed of five parts: socio-demographic characteristics; Buddhist value as Buddhist beliefs; mindfulness as Buddhist practices; social support as faith community; and life satisfaction. Descriptive statistics and inferential statistics, both the Pearson correlation analysis and multiple regression analysis, were conducted.

The results indicated that the participants were mainly female (70.94%). The participants' median age was sixty-six years old. Most of them had at least a child and lived in extend family. Many of them responded positively for their

subjective health, financial, and housing situation. They also showed positive responses to Buddhist value, mindfulness, social support, and life satisfaction.

The Pearson correlation analysis presented that Life satisfaction was significantly correlated to Buddhist value, mindfulness, and social support. Multiple regression analysis demonstrated that Buddhist value, mindfulness, and social support were significantly positive predictors for life satisfaction.

Therefore, the more the elderly value Buddhism, the more satisfaction in life they have. The more mindfulness they have, the more life satisfaction they gain. The elderly who have high social support are also highly satisfied with their lives.

6.2 Recommendations

6.2.1 Recommendation for Implementation

From this study, it seems to be important for the elderly to participate in Buddhist activities in order to keep in contact with their own society and to make their feeling peaceful because social participation provides the elderly with social support. However, some of the elderly cannot go to a temple nor take part in any activities freely by themselves because of physical or cognitive disability. Therefore, it is recommended to launch a program to help the disabled elderly go to a temple or participate in Buddhist activities.

Health volunteers should list up the elderly who need help go to a temple. Before taking the elderly to a temple, volunteers have to learn how to help the elderly so that a health center or a hospital should provide training for volunteers. Some elder persons may need mobility aids, such as a cane, a wheelchair, or a car. Health centers should provide health volunteers for them. Then, they can regularly take the elderly to a temple.

6.2.2 Recommendation for Further Research

In terms of the methodology, the questionnaire should be modified to make questions more understandable, especially the mindfulness part and life satisfaction part. If questions are easy to understand, the elderly who have light cognitive problem could participate. In this study, the elder persons who had cognitive problems were not included. However, it was difficult to distinguish whether one had a problem, or not. In general, many of the elderly have cognitive problems to some extent so that it is crucial to develop a simple and reliable research method to include as many elder persons as possible.

Another interesting issue is to investigate the mechanism of the relation between Buddhism and life satisfaction of the elderly in rural areas, such as the Phukhiao district. Although this study showed a significant relationship between Buddhist value and life satisfaction, this study did not demonstrate its mechanism because of the cross-sectional study. Therefore, qualitative study should be conducted to explore how Buddhism faith satisfies elderly lives as well as how their well-being is improved.

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APPENDICES

APPENDIX A

ENGLISH QUESTIONNAIRE

LIFE SATISFACTION OF THE ELDERLY IN PHUKHIAO DISTRICT, CHAIYAPHUM PROVINCE, THAILAND

ID Number_____ Date of Answer_____

Part 1: Personal factors

Please write or check according to your situation.

1. Age _____ Year-old

2. Sex (1) Male_____ (2) Female_____

3. Number of children _____ Persons

4. Family structure
   (1)Alone_____ (2) Nuclear_____ (3) Extended_____

5. Daily occupation/activity
   (1)Professional_____ (2) Non-Professional_____ (3) Farmer_____
   (4) Volunteer_____ (5) Others_____ (6) No occupation_____

6. Education
   (1) None____ (2) Lower primary education _____ (3) Primary education ___
   (4) Secondary education _____ (5) Higher secondary education _____

7. Subjective Health situation
   (1) Supreme_____ (2) Good:_____ (3) Uncertain_____ (4) not good _____
   (5) Severe_____

8. Subjective Financial situation

(1) Much:_____ (2) Enough:_____ (3) Uncertain:_____ (4) Not Enough: (5) Poor:_____

9. Comfort of your accommodation

(1) Excellent:_____ (2) Enough:_____ (3) Uncertain:_____ (4) Not Enough: (5) Poor:_____

10. Ownership of your accommodation

(1) Owner:_____ (2) Paid rent:_____ (3) Staying with relatives and no pay:__

(4) Other, specify:_____

Part 2 Buddhist Values

Please indicate the extent to which you agree or disagree with the following statements.

1 Strongly Agree	2 Agree	3 Uncertain	4 Disagree	5 Strongly Disagree

1. Aging is part of normal life cycle (birth, aging, illness, death).
   1 2 3 4 5
2. Do good, receive good: do evil, receive evil.
   1 2 3 4 5
3. Making good merits (thumb boon thumb thuun) improve life.
   1 2 3 4 5
4. Chanting makes me feeling good (sabaay jai).
   1 2 3 4 5
5. Buddhism (Dharma) helps reducing unhealthful imaginations.
   1 2 3 4 5
6. Buddhism practices help controlling craving.
   1 2 3 4 5
7. Meditation relieves stress.
   1 2 3 4 5
8. To be moderate in living and eating is good.
   1 2 3 4 5

Part 3 Mindfulness

Instructions: Below is a collection of statements about your everyday experience. Using the 1-5 scale below, please indicate how frequency or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

1. I could be experiencing some emotion and not be conscious of it until sometime later.

   1 2 3 4 5 6

2. I break or spill things because of carelessness, not paying attention, or thinking of something else.

   1 2 3 4 5 6

3. I find it difficult to stay focused on what's happening in the present.

   1 2 3 4 5 6

4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.

   1 2 3 4 5 6

5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.

   1 2 3 4 5 6

6. I forget a person's name almost as soon as I've been told it for the first time.

   1 2 3 4 5 6

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

7. It seems I am "running on automatic," without much awareness of what I'm doing.

1 2 3 4 5 6

8. I rush through activities without being really attentive to them.

1 2 3 4 5 6

9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.

1 2 3 4 5 6

10. I do jobs or tasks automatically, without being aware of what I'm doing.

1 2 3 4 5 6

11. I find myself listening to someone with one ear, doing something else at the same time.

1 2 3 4 5 6

12. I drive places on "automatic pilot" and then wonder why I went there.

1 2 3 4 5 6

13. I find myself preoccupied with the future or the past.

1 2 3 4 5 6

14. I find myself doing things without paying attention.

1 2 3 4 5 6

15. I snack without being aware that I'm eating.

1 2 3 4 5 6

Part 4 Loneliness Scale

Do you agree with the following states?

1. I experience a general sense of emptiness.
   1) Yes_____ 2) Uncertain_____ 3) No_____

2. There are plenty of people I can rely on when I have problems.
   1) Yes_____ 2) Uncertain_____ 3) No_____

3. There are many people I can trust completely.
   1) Yes_____ 2) Uncertain_____ 3) No_____

4. I miss having people around.
   1) Yes_____ 2) Uncertain_____ 3) No_____

5. There are enough people I feel close to.
   1) Yes_____ 2) Uncertain_____ 3) No_____

6. I often feel rejected.
   1) Yes_____ 2) Uncertain_____ 3) No_____

Part 5 Life satisfaction

Below are 15 statements with which you may agree or disagree. These statements concern your past, present, and future. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7-point scale is:

1 Strongly Agree	2 Agree	3 slightly Agree	4 Uncertain	5 Slightly Disagree	6 Disagree	7 Strongly Disagree

1. If I had my past to live over, I would change nothing.

1 2 3 4 5 6 7

2. I am satisfied with my life in the past.

1 2 3 4 5 6 7

3. My life is the past was ideal for me.

1 2 3 4 5 6 7

4. The conditions of my life in the past were excellent.

1 2 3 4 5 6 7

5. I had the important things I wanted in my past.

1 2 3 4 5 6 7

6. I would change nothing about my current life.

1 2 3 4 5 6 7

7. I am satisfied with my current life.

1 2 3 4 5 6 7

1 Strongly Agree	2 Agree	3 slightly Agree	4 Uncertain	5 Slightly Disagree	6 Disagree	7 Strongly Disagree

8. My current life is ideal for me.

1 2 3 4 5 6 7

9. The current conditions of my life are excellent.

1 2 3 4 5 6 7

10. I have the important thing I want right now.

1 2 3 4 5 6 7

11. There will be nothing that I will want to change about my future.

1 2 3 4 5 6 7

12. I will be satisfied with my life in the future.

1 2 3 4 5 6 7

13. I expect my future life will be ideal for me.

1 2 3 4 5 6 7

14. The conditions of my future life will be excellent.

1 2 3 4 5 6 7

15. I will have the important things I want in the future.

1 2 3 4 5 6 7

APPENDIX B
THAI QUESTIONNAIRE

แบบสอบถามโดยการสัมภาษณ์
ความพึงพอใจในชีวิตของผู้สูงอายุในอำเภอภูเขียว จังหวัดชัยภูมิ ประเทศไทย

เลขที่แบบสอบถาม..... วันที่สัมภาษณ์.....

ส่วนที่ 1 ปัจจัยส่วนบุคคล

โปรดตอบคำถามต่อไปนี้

1. อายุ ..... ปี

2. เพศ

❑ 1. ชาย ❑ 2. หญิง

3. จำนวนบุตร .....คน

4. โครงสร้างครอบครัว

❑ 1. อยู่คนเดียว ❑ 2. ครอบครัวเดี่ยว ❑ 3. ครอบครัวขยาย

5. อาชีพ

❑ 1. วิชาชีพ ❑ 2. ไม่ใช่วิชาชีพ ❑ 3. ชาวนา ❑ 4. อาสาสมัคร

❑ 5. อื่นๆโปรดระบุ..... ❑ 6. ไม่มีอาชีพ/แม่บ้าน(ดูแลบ้านตนเอง)

6. การศึกษา

❑ 1. ไม่ได้เรียน ❑ 2. ต่ำกว่าประถมศึกษา ❑ 3. ประถมศึกษา

❑ 4. มัธยมศึกษา ❑ 5. สูงกว่ามัธยมศึกษา

7. สุขภาพของท่าน

❑ 1. ดีมาก ❑ 2. ดี ❑ 3. ไม่แน่ใจ ❑ 4. ไม่ดี ❑ 5. แย่มาก

8. สถานะทางการเงินของท่าน

❑ 1. ดี ❑ 2. พอใช้ ❑ 3. ไม่แน่ใจ ❑ 4. ไม่พอใช้ ❑ 5. จน

9. ความสุขสบายของที่พัก

❑ 1. ดีมาก ❑ 2. ดี ❑ 3. ไม่แน่ใจ ❑ 4. ไม่ดี ❑ 5. แย่

10. การเป็นเจ้าของที่อยู่อาศัย

❑ 1. เป็นเจ้าของ ❑ 2. จ่ายค่าเช่า

❑ 3. พักกับญาติและไม่ต้องเสียค่าใช้จ่าย ❑ 4. อื่นๆโปรดระบุ

ส่วนที่ 2 การรับรู้คุณค่าของพระพุทธศาสนา

อยากทราบว่าท่านมีความคิดเห็นอย่างไรต่อคำสอนทางพระพุทธศาสนา

1	2	3	4	5
ไม่เห็นด้วยเป็นอย่างมาก	ไม่เห็นด้วย	ไม่แนใจ	เห็นด้วย	เห็นด้วยเป็นอย่างมาก

หลักคำสอนและคุณค่าทางพุทธ

1. ความแก่เป็นเรื่องธรรมดาของชีวิต (เกิด แก่ เจ็บ ตาย เป็นของธรรมดา)

   1)___ 2)___ 3)___ 4)___ 5)

2. ทำดีได้ดี ทำชั่วได้ชั่ว

   1)___ 2)___ 3)___ 4)___ 5)

3. การทำบุญทำทานช่วยให้ชีวิตดีขึ้น

   1)___ 2)___ 3)___ 4)___ 5)

4. การสวดมนต์ช่วยทำให้ฉันสบายใจ

   1)___ 2)___ 3)___ 4)___ 5)

5. ธรรมะช่วยไม่ให้ฟุ้งซ่าน

   1)___ 2)___ 3)___ 4)___ 5)

6. การปฏิบัติธรรมช่วยควบคุมกิเลส (ความอยาก)

   1)___ 2)___ 3)___ 4)___ 5)

7. สมาธิช่วยคลายเครียด

   1)___ 2)___ 3)___ 4)___ 5)

8. กินอยู่ให้พอเหมาะ (ยึดหลักทางสายกลาง)

   1)___ 2)___ 3)___ 4)___ 5)

ส่วนที่ 3 แบบวัดความมีสติรู้ตัวอยู่เสมอ

แบบวัดความมีสติรู้ตัวอยู่เสมอนี้ประกอบด้วย 15 ประโยคซึ่งเกี่ยวกับประสบการณ์ในชีวิตประจำวันของท่าน โปรดใส่หมายเลข 1- 6 ที่ท่านเห็นว่าเหมาะสมเพียงหมายเลขเดียว ในตอนท้ายของแต่ละประโยค

1	2	3	4	5	6
เกือบจะเสมอๆ	บ่อยมาก	บ่อยเหมือนกัน	ไม่ค่อยบ่อย	ไม่บ่อยมาก	แทบจะไม่เลย ไม่เคยเลย

โปรดพิจารณาทีละประโยคก่อนใส่คำตอบที่เหมาะสมของท่านสำหรับประโยคนั้นๆ และคำตอบของท่านควรจะสะท้อนถึงความเป็นจริงที่เกิดขึ้นกับท่าน มิใช่เป็นสิ่งที่ท่านคิดว่าควรจะเป็น

1. ฉันเกิดอารมณ์บางอย่างโดยไม่มีสติรู้ตัวจนกระทั่งเวลาล่วงเลยไปแล้วระยะหนึ่ง
   ❑
2. ฉันทำข้าวของแตกกระจัดกระจายเพราะความไม่ระมัดระวัง ขาดการเอาใจใส่หรือกำลังคิดเรื่องบางอย่างอยู่
   ❑
3. ฉันพบว่ามันยากที่จะใจจดใจจ่อกับเหตุการณ์ที่กำลังเกิดขึ้นในปัจจุบัน
   ❑
4. ฉันมีแนวโน้มที่จะเดินอย่างรวดเร็วเพื่อไปถึงจุดหมายโดยปราศจากการเอาใจใส่ต่อสิ่งที่เกิดขึ้นตลอดทางเดิน
   ❑
5. ฉันไม่รู้สึกถึงความตึงเครียดหรือความไม่สบายกายจนกระทั่งฉันตั้งใจจดจ่อกับมันจริงๆ
   ❑
6. ฉันลืมชื่อคนเกือบจะทันทีที่ได้รับการบอกกล่าวเป็นครั้งแรก
   ❑
7. มันดูเหมือนว่าฉันกำลังทำอะไรไปตามความเคยชินโดยไม่มีสติรู้ตัวว่าฉันกำลังทำอะไร
   ❑
8. ฉันเร่งรีบทำกิจกรรมต่างๆโดยไม่ใส่ใจกับมันจริงๆ
   ❑
9. ฉันสนใจต่อเป้าหมายที่ต้องการทำให้สำเร็จจนฉันไม่รู้ตัวว่ากำลังทำอะไรอยู่ ณ ขณะนี้
   ❑

10. ฉันทำงานอย่างอัตโนมัติโดยไม่รู้ตัวว่าฉันกำลังทำอะไร

❑

11. ฉันพบว่าตัวเองกำลังฟังผู้อื่นด้วยหูเดียวในขณะที่ทำงานอื่นไปด้วย

❑

12. ฉันเดินไปถึงที่หมายโดยไม่รู้ตัวว่าทำไมฉันถึงมาที่นี่

❑

13. ฉันพบว่าตัวเองคิดหมกหมุ่นอยู่กับอดีต เพ้อฝันแต่อนาคต ไม่สนใจกับปัจจุบัน

❑

14. ฉันพบว่าตัวเองกำลังทำงานโดย ไม่มีความใส่ใจในงาน

❑

15. ฉันกินจุกจิกโดยไม่มีความรู้ตัวว่าฉันกำลังกิน

❑

<u>ส่วนที่ 4</u> การสนับสนุนทางสังคม

คุณเห็นด้วยกับข้อความต่อไปนี้หรือไม่

1. ฉันเคยมีความรู้สึกว่าชีวิตว่างเปล่า

   ❑ 1. ใช่ ❑ 2. ไม่แน่ใจ ❑ 3. ไม่ใช่

2. มีคนจำนวนมากที่ฉันสามารถพึ่งได้ถ้าฉันมีปัญหา

   ❑ 1. ใช่ ❑ 2. ไม่แน่ใจ ❑ 3. ไม่ใช่

3. มีคนจำนวนมากที่ฉันสามารถไว้ใจได้เต็มที่

   ❑ 1. ใช่ ❑ 2. ไม่แน่ใจ ❑ 3. ไม่ใช่

4. ฉันไม่มีผู้คนห้อมล้อม

   ❑ 1. ใช่ ❑ 2. ไม่แน่ใจ ❑ 3. ไม่ใช่

5. ฉันมีคนใกล้ชิดมากพอ

   ❑ 1. ใช่ ❑ 2. ไม่แน่ใจ ❑ 3. ไม่ใช่

6. ฉันมักจะรู้สึกถูกปฏิเสธ

   ❑ 1. ใช่ ❑ 2. ไม่แน่ใจ ❑ 3. ไม่ใช่

ส่วนที่ 5 แบบวัดความพึงพอใจกับชีวิตที่เป็นอยู่

แบบวัดความพึงพอใจกับชีวิตที่เป็นอยู่ ประกอบด้วย 15 ประโยค ซึ่งมีวัตถุประสงค์ที่จะวัดความพึงพอใจกับชีวิตที่เกี่ยวข้องทั้งในอดีต ปัจจุบันและอนาคต โปรดใส่หมายเลข 1-7 ที่ท่านเห็นว่าเหมาะสมเพียงหมายเลขเดียว ในตอนท้ายของแต่ละประโยค

1	2	3	4	5	6	7
ไม่เห็นด้วยอย่างยิ่ง	ไม่เห็นด้วย	ไม่เห็นด้วยบ้าง	เฉยๆ	เห็นด้วยบ้าง	เห็นด้วย	เห็นด้วยอย่างยิ่ง

1. ถ้าฉันย้อนเวลาได้ ฉันจะไม่เปลี่ยนแปลงสิ่งใด ❑
2. ฉันพึงพอใจกับชีวิตในอดีตที่ผ่านมา ❑
3. ชีวิตในอดีตของฉันเป็นสิ่งที่ดีพร้อมสำหรับฉัน ❑
4. เงื่อนไขชีวิตในอดีตของฉันดีที่สุด ❑
5. ฉันมีสิ่งสำคัญที่ฉันเคยต้องการในอดีต ❑
6. ฉันจะไม่เปลี่ยนแปลงสิ่งใดๆเกี่ยวกับชีวิตในปัจจุบัน ❑
7. ฉันพึงพอใจกับชีวิตในปัจจุบัน ❑
8. ชีวิตในปัจจุบันของฉันเป็นสิ่งที่ดีพร้อมสำหรับฉัน ❑
9. เงื่อนไขชีวิตในปัจจุบันของฉันดีที่สุด ❑
10. ฉันมีสิ่งสำคัญที่ฉันต้องการในขณะนี้ ❑
11. ไม่มีสิ่งใดที่ฉันต้องการจะเปลี่ยนเพื่ออนาคตของฉัน ❑
12. ฉันจะพึงพอใจกับชีวิตในอนาคต ❑
13. ฉันคาดหวังว่าชีวิตในอนาคตของฉันจะเป็นสิ่งที่ดีพร้อมสำหรับฉัน ❑
14. เงื่อนไขชีวิตในอนาคตของฉันจะดีที่สุด ❑
15. ฉันจะมีสิ่งสำคัญที่ฉันต้องการในอนาคต ❑

APPENDIX C

SUPPLEMENT RESULTS

Table 4.6 Percentages of the elderly by items of Buddhist values

Statements		1 Strongly Disagree	2 Disagree	3 Uncertain	4 Agree	5 Strongly Agree
Aging is part of normal life cycle (birth, aging, illness, death).	Number				28	175
	Percentage				13.79	86.21
Do good, receive good: do evil, receive evil.	Number		3		31	169
	Percentage		1.48		15.27	83.25
Making good merits (thumb boon thumb thuun) improve life.	Number				15	188
	Percentage				7.39	92.61
Chanting makes me feeling good (sabaay jai).	Number			1	18	184
	Percentage			0.49	8.87	90.64
Buddhism (Dharma) helps reducing unhealthful imaginations.	Number				30	173
	Percentage				14.78	85.22
Buddhism practices help controlling craving.	Number			1	25	177
	Percentage			0.49	12.32	87.19
Meditation relieves stress.	Number			1	23	179
	Percentage			0.49	11.33	88.18
To be moderate in living and eating is good.	Number				35	168
	Percentage				17.24	82.76

Table 4.7 Percentages of the elderly by items of mindfulness

Statements		Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never
I could be experiencing some emotion and not be conscious of it until sometime later.	Number	3	11	17	36	20	116
	Percentage	1.48	5.42	8.37	17.73	9.85	57.14
I break or spill things because of carelessness, not paying attention, or thinking of something else.	Number	1	1	13	18	8	162
	Percentage	0.49	0.49	6.40	8.87	3.94	79.80
I find it difficult to stay focused on what's happening in the present.	Number			13	16	17	157
	Percentage			6.40	7.88	8.37	77.34
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	Number		5	12	15	17	154
	Percentage		2.46	5.91	7.39	8.37	75.86
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	Number		1	13	15	23	151
	Percentage		0.49	6.40	7.39	11.33	74.38
I forget a person's name almost as soon as I've been told it for the first time.	Number	2	19	27	30	23	102
	Percentage	0.99	9.36	13.30	14.78	11.33	50.25
seems I am "running on automatic," without much awareness of what I'm doing.	Number		3	12	21	16	151
	Percentage		1.48	5.91	10.34	7.88	74.38
I rush through activities without being really attentive to them.	Number	1	5	11	18	14	154
	Percentage	0.49	2.46	5.42	8.87	6.90	75.86

Table 4.7 Percentages of the elderly by items of mindfulness (cont.)

Statements		Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	Number	1	2	12	13	22	153
	Percentage	0.49	0.99	5.91	6.40	10.84	75.37
I do jobs or tasks automatically, without being aware of what I'm doing.	Number			8	13	10	172
	Percentage			3.94	6.40	4.93	84.73
I find myself listening to someone with one ear, doing something else at the same time.	Number		2	9	19	18	155
	Percentage		0.99	4.43	9.36	8.87	76.35
I drive places on "automatic pilot" and then wonder why I went there.	Number		1	11	10	10	171
	Percentage		0.49	5.42	4.93	4.93	84.24
I find myself preoccupied with the future or the past.	Number	1	5	9	13	11	164
	Percentage	0.49	2.46	4.43	6.40	5.42	80.79
I find myself doing things without paying attention.	Number			6	4	11	182
	Percentage			2.96	1.97	5.42	89.66
I snack without being aware that I'm eating.	Number		10	6	4	8	175
	Percentage		4.93	2.96	1.97	3.94	86.21

Table 4.8 Percentages of the elderly by items of social support

Statements		Yes	Uncertain	No
I experience a general sense of emptiness.	Number	42	8	153
	Percentage	20.69	3.94	75.37
There are plenty of people I can rely on when I have problems.	Number	6	2	195
	Percentage	2.96	0.99	96.06
There are many people I can trust completely.	Number	5	3	195
	Percentage	2.46	1.48	96.06
I miss having people around.	Number	12	1	190
	Percentage	5.91	0.49	93.60
There are enough people I feel close to.	Number	4	2	197
	Percentage	1.97	0.99	97.04
I often feel rejected.	Number	13	8	182
	Percentage	6.40	3.94	89.66

Table 4.9 Percentages of the elderly by items of life satisfaction

statements		Strongly Disagree	Disagree	slightly Disagree	Uncertain	Slightly Agree	Agree	Strongly Agree
If I had my past to live over, I would change nothing.	Number	2	6	6	4	11	63	111
	Percentage	0.99	2.96	2.96	1.97	5.42	31.03	54.68
I am satisfied with my life in the past.	Number	4	3			13	61	122
	Percentage	1.97	1.48			6.40	30.05	60.10
My life is the past was ideal for me.	Number	2	5	2	1	8	70	115
	Percentage	0.99	2.46	0.99	0.49	3.94	34.48	56.65
The conditions of my life in the past were excellent.	Number	1	1	1	1	13	63	123
	Percentage	0.49	0.49	0.49	0.49	6.40	31.03	60.59
I had the important things I wanted in my past.	Number	1	2	6	19	26	61	88
	Percentage	0.49	0.99	2.96	9.36	12.81	30.05	43.35
I would change nothing about my current life.	Number	1	1		3	12	68	118
	Percentage	0.49	0.49		1.48	5.91	33.50	58.13
I am satisfied with my current life.	Number		1	4	1	10	55	132
	Percentage		0.49	1.97	0.49	4.93	27.09	65.02
My current life is ideal for me.	Number			5		11	62	125
	Percentage			2.46		5.42	30.54	61.58

Table 4.9 Percentages of the elderly by items of life satisfaction (cont.)

statements		Strongly Agree	Agree	slightly Agree	Uncertain	Slightly Disagree	Disagree	Strongly Disagree
The current conditions of my life are excellent.	Number	1		2	2	10	61	127
	Percentage	0.49		0.99	0.99	4.93	30.05	62.56
I have the important thing I want right now.	Number	1	4		29	29	58	82
	Percentage	0.49	1.97		14.29	14.29	28.57	40.39
There will be nothing that I will want to change about my future.	Number	1	3	3	5	10	82	99
	Percentage	0.49	1.48	1.48	2.46	4.93	40.39	48.77
I will be satisfied with my life in the future.	Number		1		4	8	79	111
	Percentage		0.49		1.97	3.94	38.92	54.68
I expect my future life will be ideal for me.	Number		1	1	3	12	80	106
	Percentage		0.49	0.49	1.48	5.91	39.41	52.22
The conditions of my future life will be excellent.	Number			3	3	5	75	116
	Percentage			1.48	1.48	2.96	36.95	57.14
I will have the important things I want in the future.	Number		3	2	35	22	71	70
	Percentage		1.48	0.99	17.24	10.84	34.98	34.48

APPENDIX D

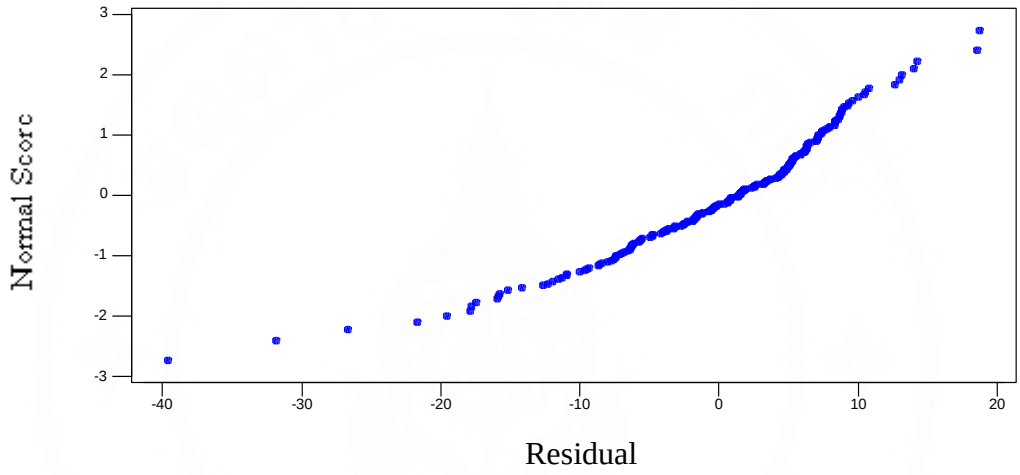

Figure 5.1 Normal Probability Plots of the Residuals (Response is life satisfaction)

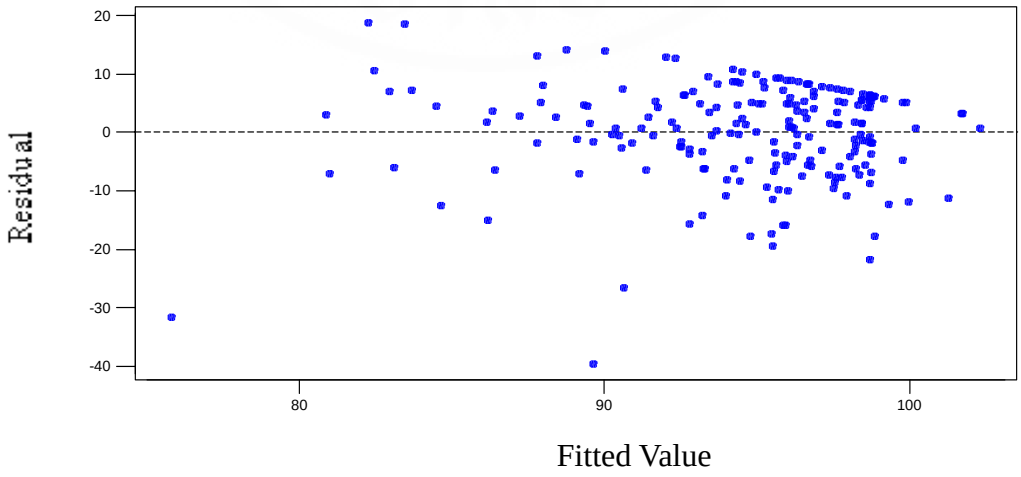

Figure 5.2 Residuals versus the Fitted Values (Response is life satisfaction.)

BIOGRAPHY

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DATE OF BIRTH	August 4, 1970
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