Development and Psychometric Evaluation of Thai Elderly Resilience Scale

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ชื่อวิทยานิพนธ์ การพัฒนาและทดสอบคุณภาพแบบประเมินพลังสุขภาพจิตสำหรับผู้สูงอายุไทย
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บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อพัฒนาและทดสอบคุณภาพแบบประเมินพลังสุขภาพจิต สำหรับผู้สูงอายุไทย โดยมีการดำเนินการ 2 ระยะ คือ ระยะพัฒนา และระยะทดสอบคุณภาพแบบประเมิน ระยะพัฒนาเริ่มด้วยการวิเคราะห์แนวคิดที่เกี่ยวข้องกับพลังสุขภาพจิต แล้วได้เลือกกรอบแนวคิดของกร้อทเบอร์ก (Grotberg, 1995 & 2003) เป็นพื้นฐานในการออกแบบการศึกษาเชิงคุณภาพ โดยการสัมภาษณ์ และสนทนากลุ่มตัวแทนผู้สูงอายุไทย14 ราย ผลการศึกษาทำให้ได้องค์ประกอบแนวคิดพลังสุขภาพจิตในผู้สูงอายุไทย 3 มิติ คือ “ฉันมี...ฉันเป็น... ฉันสามารถ…” (I AM, I HAVE, I CAN) ซึ่งประกอบด้วย 18 องค์ประกอบย่อย โครงสร้างของแนวคิดดังกล่าวได้ถูกนำมาพัฒนาเป็นชุดข้อคำถามรวม 50 ข้อ และได้รับการตรวจสอบความตรงเชิงเนื้อหาจากผู้เชี่ยวชาญ 6 คน (CVI = 0.97 และตัดข้อคำถามซ้ำ 3 ข้อ) หลังจากนั้นได้นำแบบประเมินชุด 47 ข้อไปตรวจสอบความตรงแบบผิวเผินโดยผู้สูงอายุ5 คน ผลพบว่า ข้อคำถามมีความชัดเจน และเข้าใจง่าย และเมื่อนำไปทดสอบคุณภาพเบื้องต้นกับผู้สูงอายุ30 คน ผลการวิเคราะห์ข้อมูลพบว่าความสัมพันธ์ระหว่างข้อคำถามส่วนใหญ่ (จำนวน40 ข้อ) อยู่ในเกณฑ์ที่ยอมรับได้ (r = .30 - .67) และความสอดคล้องภายในของข้อคำถามทั้งชุดอยู่ในระดับสูง (α = 0.94) ดังนั้น แบบประเมินดังกล่าวจึงได้ถูกนำไปทดลองใช้ในภาคสนามกับกลุ่มตัวอย่างผู้สูงอายุ 517 คน ผลการวิเคราะห์ข้อมูลยังคงยืนยันความสัมพันธ์ และความสอดคล้องของชุดคำถาม(ข้อคำถามจำนวน

42 ข้อ มีค่า r = .30 - .51, α = 0.93) โดย ได้ตัดข้อคำถาม 5 ข้อที่มีความสัมพันธ์กับคะแนนรวมต่ำกว่า 0.30 ออกไป หลังจากนั้นจึงได้นำแบบประเมินชุด 42 ข้อคำถามไปวิเคราะห์องค์ประกอบเชิงสำรวจ (Exploratory Factor Analysis)

ผลการวิเคราะห์องค์ประกอบเชิงสำรวจ พบว่ามีข้อคำถามจำนวน 18 ข้อไม่สามารถอธิบายความแปรปรวนของคะแนนรวมได้ตามเกณฑ์ จึงได้พิจารณาตัดออกไป ดังนั้นแบบประเมินพลังสุขภาพจิตผู้สูงอายุไทยฉบับสมบูรณ์จึงประกอบด้วยข้อคำถาม 24 ข้อใน 5 มิติ ได้แก่ 1) ความสามารถในการอยู่ร่วมกับผู้อื่น 2) ความมั่นใจในการดำรงชีวิต 3) การมีสิ่งสนับสนุนทางสังคม 4) การมีชีวิตอยู่ด้วยความมั่นคงทางจิตวิญญาณ (4 ข้อ) และ 5) ความสามารถในการลดความเครียดและการจัดการกับปัญหา หลังจากนั้นจึงได้นำแบบประเมินชุด24 ข้อคำถามไปทดสอบคุณภาพขั้นสุดท้าย

ผลการทดสอบคุณภาพขั้นสุดท้ายยังคงยืนยันว่าแบบประเมินที่ได้พัฒนาขึ้นมีความตรงเชิงโครงสร้าง โดยพบความสัมพันธ์ทางบวกในระดับสูง ระหว่างคะแนนพลังสุขภาพจิต และคะแนนสุขภาพจิต (โดยใช้แบบวัดสุขภาพจิตคนไทย) (r = .84, p <.01, n = 30) และยังสามารถจำแนกผู้สูงอายุที่มีพลังสุขภาพจิตระดับสูง (กลุ่มที่อาศัยอยู่กับครอบครัว 30 คน) กับผู้สูงอายุที่มีพลังสุขภาพจิตระดับต่ำได้ (กลุ่มที่อาศัยในสถานสงเคราะห์คนชรา, n = 30 คน) (t = 0.33, p < .01) นอกจากนี้ ผลการทดสอบความเที่ยงโดยวิธีวัดซ้ำ พบว่าคะแนนพลังสุขภาพจิตที่ได้รับจากการวัดทั้ง2 ครั้งมีความสัมพันธ์กันในระดับสูง (r = .91, p <.01, n = 30) และยังพบว่าแบบประเมินฉบับสมบูรณ์นี้มีความสอดคล้องภายในอยู่ในระดับสูงเช่นกัน (α = 0.91)

ดังนั้น แบบประเมินพลังสุขภาพจิต สำหรับผู้สูงอายุไทย ซึ่งประกอบด้วย 24 ข้อคำถามที่พัฒนาขึ้นในครั้งนี้จึงสามารถนำไปใช้ประเมินความสามารถในการปรับตัวต่อสถานการณ์

ความทุกข์ยากในชีวิต ของผู้สูงอายุไทยได้ และยังเป็นประโยชน์สำหรับนักวิจัยและผู้ปฏิบัติงานกับกลุ่มผู้สูงอายุไทยในการนำข้อมูลที่ได้จากการศึกษานี้ไปประยุกต์ใช้ต่อไป

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ABSTRACT

This study aimed to develop and evaluate psychometric properties of the Thai Elderly Resilience Scale (TER scale). Two stages of scale development were conducted: 1) scale development stage and 2) psychometric evaluation stage. Resilience concept based on Grotberg (1995, 2003) was initially used for exploring the phenomena in the Thai elderly. Literature review and individual interviews and focus group of 14 representatives of resilient Thai elderly were integrated. The results revealed three identified, I AM, I HAVE, and I CAN within 18 components contributing conceptual structure of Thai elderly resilience. The item pool consisting of 50 items were generated and further tested for its content validity. The high content validity index (CVI = 0.97) were identified by six experts. The first draft TER scale was further examined on its face validity using Thai elderly in order to ensure its clarity and interpretability and rewording was recommended. Pre - testing of the first draft TER scale was further conducted for item analysis and internal consistency assessment by using 30 Thai elderly. Majority of items (40 items) were correlated (r = .30 -. 67) and the whole set of items gained high internal consistency (α = .94).

In addition, field testing was performed by using 517 Thai elderly subjects. The investigations found high internal consistency of the first draft TER

scale (α = 0.93), acceptable correlations between item to item, item to subscale, subscale to subscale, subscale to total, and item to total (r = 0.30 – 0.51). The results from Exploratory Factor Analysis (EFA) yielded the last version TER scale consisting of 24 items categorized into 5 factors, i.e., 1) be able to join with people, 2) be confident to live 3) having social support4) living with spiritual security and 5) be able to de-stress and manage problems.

Final testing revealed a strong positive correlations between resilience and mental health scores ($r = .84$, $p < .01$, $n = 30$), known group comparison indicated the TER scale was able to differentiate members of one group from the other by yielding a significantly different ($t = 0.33$, $p < .01$) between the mean TER scores of two groups of the elderly, one living in shelter homes (n=30) and the other living with spouse and children (n=30). Both testing were confirmed construct validity of the scale. Furthermore, the stability evaluation using test – retest method, by having 30 Thai elderly examine the scale two different times, demonstrated a high level correlation between time 1 & time 2 at 0.91. The results confirmed the stability of the 24-item TER scale. Moreover, final testing of internal consistency yielded the alpha coefficient of total TER scale at 0.91 that additionally reflected a high reliability.

The TER scale newly developed would be a useful tool to assess resilience in Thai elderly. In addition, it is designed so that Thai researchers and practitioners, who are interested in developing further studies regarding Thai elderly, could apply the data or knowledge appropriately in Thai context.

CONTENTS

PAGE

Contents…… ix

List of Tables …… xii

List of Figures…… xiv

Chapter

1 Introduction……. 1

Background and significance……...…….. 1

Objectives of the study…….. 7

Research questions……. 7

Conceptual framework……... 8

Definition of terms……. 17

Significance of the study…..……... 17

2 Literature review……. 19

Philosophical & theoretical foundation of the study…….. 20

Thai elderly context…….. 28

Adverse life events ……..…….. 33

Mental health in old age……. 39

State of knowledge related to elderly resilience…… 40

Existing resilience measurements ……. 46

Summary…… 51

CONTENTS (continue)

PAGE

Chapter

3 Methodology……. 52

Stage of scale development ……. 52

Stage of psychometric evaluation …… 56

Protection of human subjects 'right…….. …… 68

4 Results and discussion…… 70

Results…… 70

The stage of scale development …… 70

The stage of psychometric evaluation …….. 87

Discussion…… 112

5 Conclusion and Recommendations

Conclusions…… 123

Strengths and limitations of the study…… 125

Recommendations ……..…….. 126

References……..... 128

Appendices…… 146

A: Existing instruments……. 147

B: Interview guideline (Thai version)……..... 153

C: Protection of human subjects' rights…..…… 156

D: Initial item pool…… 160

CONTENTS (continue)

PAGE

Appendices (continue)

E: Content validity form…… 171

F: Item correlations of 47 item TER scale in pre - testing…… 175

G: Item correlations of 47- item TER scale in field testing..... 181

H: Factor loading of each item and component of the 24 – item TER scale ……. 184

I: Correlations & alpha coefficients of all items and subscales of 24 items – TER scale …….. 187

J: Final draft of the TER scale…….. 192

K: List of experts…… 198

VITAE…….. 199

LIST OF TABLES

TABLE		PAGE
1	Pre- Specified and specified domains of Thai elderly resilience…	73
2	Domains and components of Thai elderly resilience scale…….	85
3	Frequency, and percentage of the pre - Testing sample classified by demographics…….....	90
4	Correlation coefficients of item analysis of the second draft 47-item TER scale ……	91
5	Correlation coefficients of subscale analysis of the second draft 47-item TER scale……..	91
6	Alpha coefficients of the second draft 47- item TER scale……	92
7	Frequency, and percentage of the sample classified by demographics……..	93
8	Alpha coefficients of the second draft 47-item TER scale……..	95
9	Correlation coefficients of the second draft 47-item TER scale…..	95
10	Total loading, percent of variance, and cumulative percentage of the second draft 42- item TER scale classified by factor loading...	98

LIST OF TABLES (continue)

TABLE		PAGE
12	Factors and factor loadings of 24- item TER scale ……..	101
13	Factor loadings and communalities of each item in factor I: Be able to join with people…….....	103
14	Factor loading and communalities of each item in factor II: Be confident to live …….	104
15	Factor loading and communalities of each item in factor III: Having Social Support…….....	105
16	Factor loading and communalities of each item in factor IV: Living with spiritual security ……	106
17	Factor loading and communalities of each item in factor V: Be able to de-stress and manages problems……	107
18	Mean, standard deviation, and correlation coefficient identified by the third draft score and TMHI score …….	108
19	Mean, standard deviation, and t- value of the TER total scores of elderly in different living arrangement …..……..……	109
20	Stability estimates of the total scores for TER time 1 and TER time 2 …….	110
21	Cronbach's alpha coefficients and number of items for total and five subscales of the TER scale final version……..	111
22	Relationships among factors and total scale……..	111

LIST OF FIGURES

FIGURE		PAGE
1	Framework of Thai elderly resilience…….	16
2	The process of scale development and psychometric evaluation of TER scale…….. …….....	69
3	Results of TER scale developmental process ……..……	72
4	Domains and components of Thai elderly resilience Scale…….	86
5	The Cattle's Scree plot of the second draft 42-item TER scale ...	97

CHAPTER 1

INTRODUCTION

Background and significance

Today, the rapid increasing in the number and the proportion of elderly population is becoming a worldwide phenomenon. The elderly population of 60 years and older is the fastest growing in the world among all age groups (World Health Organization [WHO], 2009). Population aging is growing rapidly in many developed countries while developing countries are also witnessing a swift surge in their proportion of the aged (Gavrilov & Heuveline, 2003). In Thailand, like most developing countries, the number of older population has been on the rise, from 9% in 2002 to 10.7% in 2007, and will reach 15% by 2020 (National Statistical Office [NSO], 2008), and predicted a 30 % increase by the year 2050 (The United Nations of Population Fund, 2006). By the international standard, a country with its proportion of elderly population at 10% is considered as aging society (NSO, 2008), thus Thailand has become the aging society since 2005.

The increase of the aged causes apprehension regarding resources that will be needed to provide services for these individuals and thus has a tremendous impact on a society at large of families, health organizations, community, resource sharing, socioeconomic problems, government's policies, and health care services. More importantly, the aging phenomenon also has a major effect at an individual level. Getting older, elderly go through the inevitable decline of physical function which, in

turn, influences their mental health. Majority of the elderly are likely to suffer from at least one chronic illness, such as hypertension, diabetes, paralytic conditions, stroke, and rheumatoid arthritis (National Statistical Office [NSO], 2007; Wu & Green, 2000; Dunn, 2004; Sritunyarat et al., 2002). A study in a rural community of Malaysia stated a high prevalence (60.1%) of chronic illness among its elderly (Sherina, Lekhraj, & Mustaqim, (2004). These health problems impede the elderly abilities to care for themselves (Wang, Van Belle, Kukull, & Larson, 2002; Wolff, Boult, Boyd, & Anderson, 2005), deteriorate their mental health (Harris & Barraclough, 1998; Osborn, et al., 2007; Roberts, 2009; Wulsin, Vaillant, & Wells, 1999), and have an adverse effect on their resilience (Talsma, 1995). Mental Health and health professionals should play roles in cultivating and nurturing resilience, which will ameliorate the negative effects of other health deterioration, in this population.

Mental health problems are generally accepted as a major health issue in the elderly. One of the most common mental health issues in this age group is depression (Anderson, 2001; Blazer, D.G., 2009; McDougall, Matthews, Kvaal, Dewey, & Brayne, 2007). Unfortunately, despite its high prevalence (10-15%) in older adults (Banchuen, 2009) and highest prevalence (5-61%) in the elderly with medical illness (Neel, 2002), only a small percentage of the elderly with depression actually receives assistance and treatment (National Health Association, 2009; Thomas, 2010). One explanation to this may lie within a belief that depression is only a natural part of aging process and not much can be done about it. Common factors related to depression among the elderly, i.e., trauma from major life's adversity including lost of spouse, retirement, living with a chronic illness or economic problem, and especially a lack of support system. The study of Soonthornchaiya (2004) supported that

depression in Thai elderly was induced by three causes, i.e., 1) loss 2) negative thinking of self, environment, and future life and 3) rule of "karma" (sin) in Buddhism.

Several studies indicated that traumas or potentially traumatic events in older adult's life are likely linking to his or her mental impairment exhibited by depressive symptoms and depression (Kraaij & de Wilde, 2001; Kraaij, Arensman, & Spinhoven, 2002), high risk of Post Traumatic Stress Disorder [PTSD] (Breaslau, Kessler, Chilicoat, Schultz, Davis, & Andreski, 1998; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), reduced subjective well-being (Krause, 2004), and various types of psychopathology (Dohrenwend, 2000). Moreover, many studies have reported the bio-psycho-social impacts on the elderly triggered by various adversities such as being victims of natural disasters (Prueksaritanond & Kongsakol, 2007), living in a nursing home (Arvaniti, Livaditis, Kanioti, Davis & Samakouri, 2005; Aznan, 2007; Saereesatian, 1999), having physical health problems (Phelan, Anderson, LaCroix, & Larson, 2004; Susan & Heidrich, 1993; Wulsin, Vaillant, & Wells, 1999), and experiencing death of spouse or love ones (Prueksaritanond & Kongsakol, 2007; Schulz et al., 2001). For example, the rate of depression among the elderly, who were victims of the 2004 Tsunami disaster in southwestern Thailand, was 24.1%. The majority of them experienced complex physical, psychological, and social problems (Prueksaritanond & Kongsakol, 2007).

Additionally, a study of mental health problems among older adults living in a residential home in a Greek rural area reported a high prevalence of depression and suicide or suicidal thoughts (Arvaniti, Livaditis, Kanioti, Davis & Samakouri, 2005). Pan (1991) also found that half of the elderly (50.1%) in a nursing home in a

Shanghai district of China had depressive mood. In addition, most elderly respondents in a nursing home in Malaysia suffered from chronic illnesses as well as depression (Aznan, 2007). A comparison study of mental health between the elderly who lived in a shelter home and those who did not indicated that more than half of the elderly in the shelter home had higher level of mental health problems than the other group (Saereesatian, 1999). Banditchat, et al. (1999) discovered that nearly half (37.6%) of the elderly in three shelter homes in Bangkok, Thailand, had mental health problems. In conclusion, aging and mental health problems are undeniably closely related. The causes of depression in the elderly include health problems, adverse life events, and negative thinking. Therefore, to prevent depression in the elderly, health care providers need to properly control the risk factors by assessing the adaptability of the elderly and developing appropriate prevention programs.

Although a decline in mental health seems inevitable, not all of the elderly develop mental health problems. Some elderly recover well and manage to minimize negative effect on their aging lives. The word commonly associated with this aspect of robust health and attitude is intuitively recognized as resilience (Talsma, 1995). Resilient individuals are believed to experience positive emotion in the face of difficult events which allows them to thrive and benefit from positive outcomes (Fredricson, 2001). There has been a proliferation of study about resilience in the elderly, which is defined as the ability to adapt well to stress, adversity, trauma or catastrophe, as well as to remain stable and maintain healthy levels of psychological and physical functioning in the face of disruption or chaos (Mayo Clinic Staff, 2008). Although it does not necessary translate to being mentally healthy, resilience is found to be the strongest predictor of mental health (Wells, 2007) also it is sufficient to help

prevent mental illness. The elderly who have high resilience are able to deal with suffering and stay mentally healthy, whereas the low-resilient counterparts often experience mental illness. Therefore, measuring resilience means to assess an individual's ability to successfully adapt to adverse life events without manifesting mental health problem afterwards.

Most of current studies on resilience aim to explore the concept of resilience and attempt to create a measurement tool in children, youth, and adult population (e.g. Bonanno, 2004; Jacelon, 1997; Tusaie & Dyer, 2004; Werner & Smith, 2002). A few others focus on the concept of resilience in elderly population (Felten & Hall, 2001; Rowe & Kahn, 2000; Wagnild & Young, 1993; Wagnild & Young, 2003; Zoe, Glenn, Gopalakrishnan, & David, 2008). However, the development of resilience scale in elderly remains seriously limitation. No scale that presently exist to measure resilience in the population. There are many scales developed for adult population e.g., Resilience Scale: RS (Wagnild & Young, 1993), Connor-Davidson Resilience Scale: CD-RISC (Connor & Davidson, 2003), and Resilience Scale for Adults: RSA (Friborg et al., 2006). The pre – specified domains of the RS were initially derived from the older women, however the tool was designed to measure resilience as a trait construct instead of the fluid process. Furthermore, the CD-RISC containing items that designed for the general population – not specific to the aged group. In addition, the RSA developed for general population in European countries with a lengthy scale (45 items) may not fit to the Thai elderly. Therefore, those existing scales were limited to use in the Thai elderly population.

There is two scales developed for measuring resilience of the Thai population. One was for the Thai adolescents, whereas the other for general Thais aged from 16 to

60 years. Both are seemed to be limited for using in the elderly population. Since Luthar and colleagues (2000) proposed that resilience is not a static state, but can be changed over the lifespan based on the emergence of vulnerabilities and personal strengths, the scale designed to assess resilience needed to be specific to the particular age group. For this reason, it is significant to develop a resilience scale for Thai elderly in Thai context as it will assist the at – risk Thai elderly. The present study will provide the advantages for researchers who are interested in assessing resilience among population as well as nurses who are planning to develop intervention programs for the aged.

One of health care plans in Thailand nowadays is to enhance the elderly resilience, i.e., the ability to maintain and promote their own health as well as to seek care and support from others when needed. Therefore, it is essential that the understanding of resilience and resilience assessment must be aligning with the plans. However, extant researches have fallen short to provide the much needed knowledge. Various studies on how individual lifestyle affects resilience offered limited findings. The studies also face challenges in developing a new resilience scale. Measuring resilience means to assess bio-psycho-social and spiritual function which is proved to be a very complex task. A proper study will certainly produce an efficient nursing assessment that identifies personality, coping mechanism, social support, and other coping resources.

In conclusion, most elderly who have lived through many adverse life events often desire to have the adaptability to deal with changes and challenges as well as care and support from others. The development and psychometric evaluation of the Thai Elderly Resilience scale will be focused upon the positive function of the elderly,

thus the specifically scale should be developed. A few of these studies, conducted in other countries, claim that general resilience scale can be used to assess resilience in the elderly (Amanda et al., 2000; Hardy, Contaco, & Gill, 2004; Nygren et al., 2005; Wagnild, 2003). Those instruments did not allow the investigators to adequately assess the emerging aspects of resilience, especially among the elderly in Thai culture, mainly because resilience was very much a part of lifestyle and cultural background that varied from one country, or even a local community, to another.

Therefore, the development of TER scale for the elderly in Thai society is needed. A newly developed measure may be helpful in assessing resilience of the Thai elderly population. Ultimately, the promotion of mental health and the prevention of mental health problems for the at-risk Thai elderly can also be invented.

Objectives

1. To identify a conceptual structure of the elderly resilience in Thai context
2. To develop an instrument to measure resilience among the Thai elderly
3. To conduct a psychometric evaluation of the new instrument

Research questions

1. What are the components of the TER scale?
2. How valid and reliable are the newly developed TER scale?
    2.1 To what extent does evidence support the content validity of the TER scale?

2.2 To what extent does evidence support the reliability of the instrument?

2.3 To what extent does evidence support validity of the scale?

Conceptual framework

The conceptual framework of this study was constructed upon a conceptualization of Thai elderly resilience and norm reference framework. To construct the framework, a definition of resilience is identified as the ability to bounce back to normal life and remain mentally healthy in the face of adverse life events. The concepts, drawn from various studies, include: resilience involves a fluid process in which behaviors, thoughts, and actions can be learned and developed by anyone at anytime (American Psychological Association [APA], 2004); resilience encompasses physical and psychological function (Talsma, 1995), reflects relationships among individuals, family and community (Tusaie & Dyer, 2004), and depends on personal strengths, life style and socio-cultural background (Ryff, Singer, Love & Essex, 1998; Staudinger, Marsiske & Baltes, 1993).

The framework was developed twice, initially as pre-specified domains and later as specified domains. The pre-specified domains were initially conceptualized through the three sources of resilience features based on Grotberg (1995, 2003): 1) "I HAVE" (external support) 2) "I AM" (inner strength) and 3) "I CAN" (social and problem solving skills). These features were originally developed within children-focused study, which, as part of an international resilience project. The study was conducted in 30 countries, including Thailand. In addition, it has thus been popularly-

adopted among the research in Thai context (e.g. Department of Thai Mental Health, 2008; Kittivongvisut, 2001; Lhimsoonthon, 2000; Somchit, 1998; Takviriyanun, 2008). To generate the specified domains, the pre-specified domains were synthesized with knowledge and empirical indicators from literature reviews (e.g. Connor & Davidson, 2003; DMH, Thailand, 2008; Kinsel, 2005; Polk, 1997; Resnick, 2008; Ryff, Singer, Love & Essex, 1998; Takviriyanun, 2008; Talsma, 1995; Wagnild & Young, 2003). To ensure that the concept of elderly resilience fits within the Thai context, all 18 components were established by 14 Thai elderly. The domains and each of its components are described as follows:

1. "I AM" refers to one's faith in one's own inner strength to survive physically and mentally through hard times. Inner strength is a characteristic that is continuously developed since a young age. A great number of studies show that inner strength can improve overall health (Koob, Roux & Bush, 2002) and is necessary for handling crisis including severe illnesses (Haile, Landrum, Kotarba & Trimble, 2002). The conceptual structure of "I AM" composes of 10 components: 1) a sense of being physically healthy 2) health-promoting behaviors 3) equanimity 4) self- reliance 5) life meaningfulness 6) perseverance 7) sense of humor 8) positive thinking 9) caring for others and 10) life satisfaction. Each component is described as follows:

1.1 Being generally healthy. It refers to the elderly perception that their physical function is intact. Generally, being physically healthy and having no chronic diseases are positive characters that contribute to good mental health and well-being. In addition, a good physical health is negatively correlated to depression in Thai elderly which means that being physically healthy could likely prevent mental illness.

Therefore, physical health has impact on mental health, well-being, and adaptability (Chaochaeng & Promdee, 1991).

1.2 Health promoting behaviors. It refers to the activities or practices using for better health. Majority of the Thai elderly participants emphasized the importance of health promoting behaviors helped them staying in physically and mentally healthy during hard times. Physical exercise was ranked as most important among all other behaviors. Exercise helps reduce stress by shifting an attention away from stress factors toward the enjoyable activity and also by releasing extra metabolic energy during stress. Moreover, engaging in a physical exercise with others can enhance social and spiritual well-being. Besides, exercise contributes to good adaptation skill, quality of life, and good mental health in Thai elderly (Chotikjaroensuk, Chauwan, & Lasuka, 2003; Maranetra & Assantachai, 2003; Suwankum, 2000; Tiyarattanagul, 1993; Tubmanee, 1991; Wangvivage, 1994). Furthermore, healthy eating habits, prayer, reading or listening to religious teachings were also reported as health-promoting behaviors among participants.

1.3 Perseverance. It refers to a willingness to continue in a course of life, to reconstruct self, and remain connected with society, in the face of difficulty.

1.4 Equanimity. It refers to a balanced perspective of one's life and experience (Wagnild & Young, 1993; Wagnild, 2003). It is a state of mental or emotional stability or composure arising from a sense of temporal detachment from reality that may usually be attributed to a person displaying few (or no) signs of either excitement or distress in the face of stimuli events (Calliford, 1996).

1.5 Self–reliance. It refers to a belief in oneself and one's capabilities (Wagnild & Young, 1993). Most respondents referred to self-reliance as confidence to deal with and grow from difficult experience.

1.6 Sense of humor. It refers to a trait of appreciating and being able to express the humorous. Sense of humor can empower one's attitude and gives a sense of control, especially during hard times. The reason why sense of humor can help the elderly is exactly because it is the antithesis of suffering which is a sense of helplessness, powerlessness, or lack of control.

1.7 Positive thinking. It refers tos an optimistic view of life, even during suffering. Resilient people are able to draw on some form of positive emotion even in the midst of stress and hardship (Fredrickson 2004, Tugade & Fredrickson 2004).

1.8 Life Meaningfulness. It refers to an understanding that life has purposes.

1.9 Caring for others. It refers to a trait of helping others. Most participants recognized that helping others was a way to earn help as well as love and support from others in future.

1.10 Life Satisfaction. It refers to being self-sufficient and living simply. It includes having enough essential of live including accepting changes as part of life, and understanding life and be content by it.

2. "I HAVE" It refers to the elderly perception of having access to external support, such as people, opportunity, peer group, and feeling of spiritual security. In Thai society, family is the main lifeline of the aged. However, in the case of major adverse life events, support from other sources, i.e., peer, community, society, and

government are also important. The attributes of this domain are summarized as 1) trusting relationship 2) social support 3) spiritual support and 4) opportunity for spiritual practice.

2.1 Trusting relationship. It refers to a sense of having individuals, groups, and social environment in which to confine during stressful time.

2.2 Social support. It refers to an extent to which an individual perceives their family and friends as fulfilling their needs for support (Procidano & Heller, 1983). The participants defined social support as support (emotional, material, and financial support, or guidance) from external sources such as family members, peers, elderly club members, community leaders and the government. This type of support is a key predictor of mental health in the elderly (McCulloch, 1995; Polin, Padungyam, & Keawraya, 2005; Sangwat, 1989; Sirivej, et al., 2005; Veerakeat et al, 2009; Wangvivage, 1994) as it is negatively correlated to depression. (Tubmanee, 1991). Most Thai elderly primarily receive support from family members (Yodpech, Patanasri, Sombat, Kumhom, & Sutheesorn, 2000). Closed friends and community health staff are also important source (Kuhirunyaratn, Pongpanich, Somrongthong, Love, & Chapman, 2007).

2.3 Spiritual support. It refers to the elderly perception of having a kinship with a higher power as well as faith in God. This component emerged as a crucial component of "I HAVE" domain that fosters resilience among Thai elderly. Most Thai elderly draw on spiritual support from their religion and its practice, and sacred tokens. The religious practices include reading spiritual materials, talking to friends and family about spiritual matter, and praying in a holy place.

2.4 Opportunity for spiritual practice. It refers to the free time which the elderly can dedicate to engage in their religious and spiritual practice. When given the time, the participants reported to often engage in various spiritual events while battling with suffering.

3. “I CAN” It refers to the ability to maintain social connection and manage problem during adverse life events. These skills are often learned through interacting with others and upbringing. The domain consists of 4 components were: 1) social connection maintaining 2) ability to effective problem solving 3) spiritual coping, and 4) help seeking.

3.1 Maintain social connection. It refers to the elderly ability to make connection and establish good relationships with others, including a broad range of social relationships. Supportive relationships are essential to enhance life quality and ensure happiness in later life (Chan & Rance, 2005) by way of providing social companionship, instrumental aid, as well as emotional comfort to the elderly. Furthermore, being part of supportive network helps release pressure, reduce depressive feelings, and ameliorate harmful effects of stress on health (Silverman, Hecht, & McMillin, 2000; Kuhirunyaratn and colleagues (2007) indicated that Thai elderly, who joined the elderly club, were often visited by their children, and engaged in religious activities, usually perceived social support at a statistically higher level than those who did not have the same social connections. Sritunyarat et al. (2002) confirmed similar finding in which the neighborhood becomes an essential source of support for Thai elderly if primary caregivers, such as family members, are unable to provide the support for any reasons. In addition, the elderly spending most of their

day with friends receive social support in the forms of informational and emotional support.

3.2 Ability to effective problems solving. It refers to a skill that can directly reduce or eliminate the negative effect of stressors (Alters & Schiff, 2001). The elderly approach of coping strategies ranged along a continuum from actively maintaining their independence to passively depending on others, i.e., from active, adaptive, to passive. Research evidences confirm that problem solving is one of the strategies that can release stress and tension. These strategies are humor and laughing (Rutter, 1985; Kuiper, Martin, & Dance, 1992; Kuiper, Martin & Olinger, 1993), positive self talk (Alters & Schiff, 2001), transient problem ignorance, doing other activity, cheerful activity, talking with others, and forgiveness (Ubolwon, 2002; Pleanbumrung, 1997; Thaniwattananon, 1999). They also help the elderly to forget their problems or causes of suffering (Chirawatku, Meenongwak, Srisangpang, Sriwisej, & Poumeesuk, 2008).

3.3 Spiritual coping. It refers to alternative coping strategies by way of religious involvement. The lives of Thai elderly are governed by religious influencing, i.e. engaging in religious practices, meditating, reading religious materials, listening to monks. Especially, Buddhism-related media, offering food to monks, and going to temples are the popular means to spiritual coping among the Thai elderly. By the law of karma, the elderly accumulate meritorious acts in their lives in hope to receive good consequences in the next lives, such as being wealthy or better living condition (Veerakeat et al., 2009). In addition, learning from one's own or others' past experience was commonly employed in dealing with stressful time. Past experience, both successful ones and failures, is an important element to build

and improve resilience because it provides knowledge and strategies to use in similar situations (Mental Health Week, 2008) as well as skills to quickly assess situation and make decisions or carry out appropriate actions.

3.4 Help seeking. It refer to the activities using for help when hardship. It is a significant component in "I CAN" which occurs when the elderly feel helpless. Once the elderly are unable to solve the problem on their own, they often seek help from others. Resilient elderly participants informed that they were not reluctant to reach out for help after they had exhausted all the options to solve the problems on their own.

In summary, the conceptual framework of Thai elderly resilience refers to the ability of the elderly to adapt positively through major stressful situations and bounce back to normal life while remain mentally healthy. The framework consists of three major aspects "I AM", "I HAVE", and "I CAN". The concept has been verified by Thai elderly.

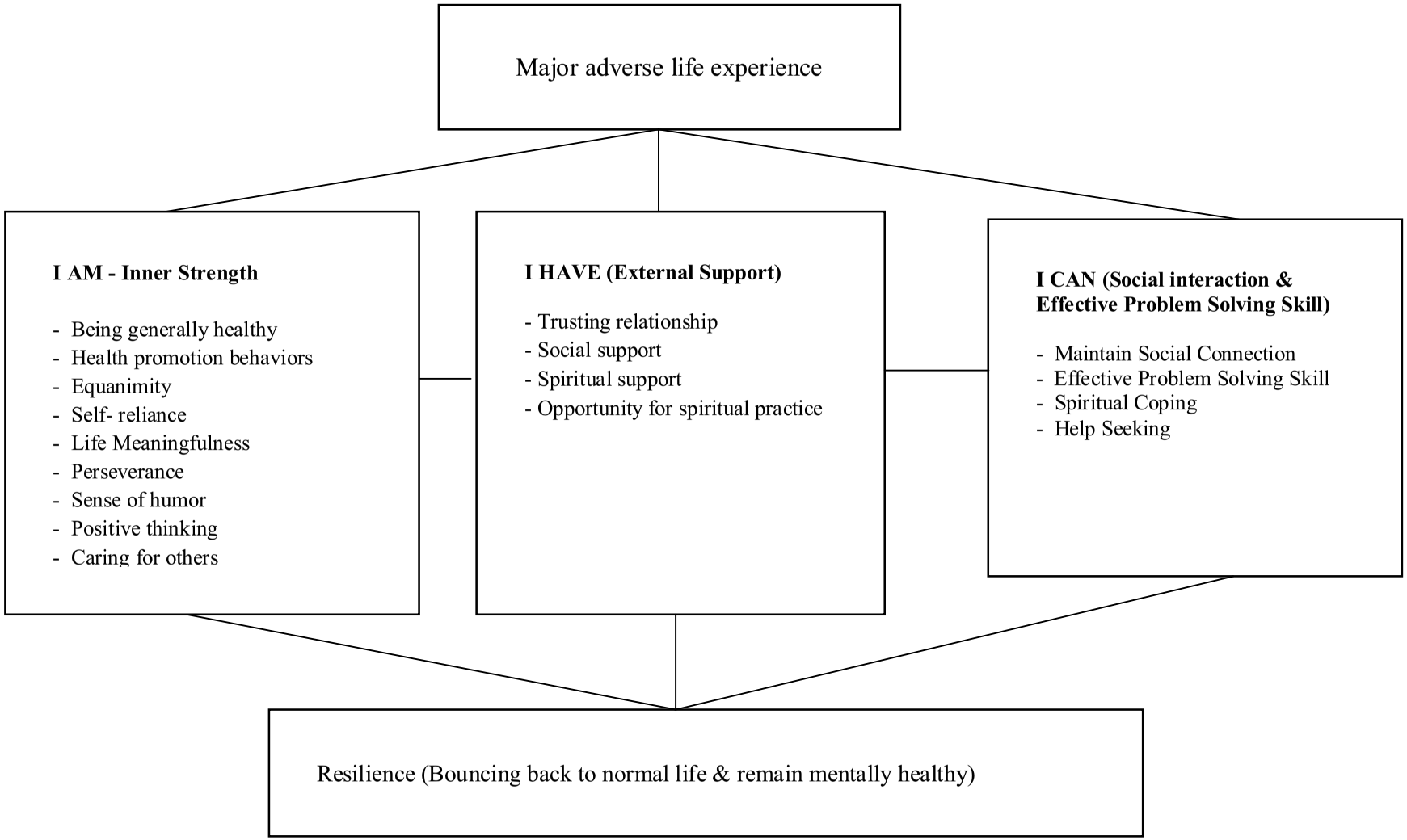

Figure 1 Framework of Thai elderly resilience

Definition of terms

The Elderly resilience refers to the ability of the elderly to successfully adapt to major adverse life events. This study conceptualizes the term resilience through three functional domains, e.g., “I AM”, “I HAVE”, and “I CAN”, which are describe as follows:

1. “I AM” refers to a sense of one’s own inner strength, both of physical and mental perseverance, to live through hard times. It is composed of a sense of being physical healthy, health-promoting behaviors, equanimity, self - reliance, life meaningfulness, perseverance, sense of humor, positive thinking, caring for others, and life satisfaction.

2. “I HAVE” refers to the elderly perception of external support and resources including a person, opportunity, peers, and spiritual security.

3. “I CAN” refers to the elderly perception on ability to maintain social connections and solve problems despite adverse life events. This domain consists of maintain social connection, able to effectively solve problem, use spiritual coping, and seek help

Significance of the study

The results of this study, both specific components of Thai elderly resilience and the instrument that has good psychometric properties, will benefit clinical practice and future research for the following reasons:

1. An understanding of all aspects of resilience among Thai elderly is valuable for the design and implementation of nursing intervention to promote and enhance resilience in Thai elderly.

2. The new TER scale will be provided benefit nursing practices using the assessment to detect mental health problems at early stages. Furthermore, it can be used to measure elderly resilience in battle against the risk of developing mental health problems.

3. The scale can be used in nursing intervention to measure level of resilience which, in turn, provides valuable information on the risk of mental health problems among Thai elderly. Moreover, the scale will be useful in the evaluation of nursing intervention by testing its effectiveness on the resilience level. Ultimately, appropriate intervention programs can also be established based on the elderly needs and context.

4. The resilience scale will also serve as a reliable resource for nursing-related research that focuses on the elderly mental health. With the knowledge of the elderly resilience construct provided by this research, future researches to develop nursing knowledge through testing a middle range theory of elderly resilience are possible. Besides, nursing researchers will be able to use the existing data to further explore the relative factors of resilience and ultimately better understand the reality of mental health in relation to resilience among the elderly.

5. The process of this study is useful to develop empirical indicators in other groups or topics of interest, e. g., abused elderly, manmade disasters, and a testing of special intervention for the elderly in multiple groups.

CHAPTER 2

LITERATURE REVIEW

The goals of this chapter are to clarify context of the study and examine the methods used in this study. In order to achieve these goals, the following topics of literature were reviewed:

1. Philosophical & theoretical foundations of the study
    - 1.1 Philosophies underpinning the research methodology
    - 1.2 Theories regarding the elderly
    - 1.3 Theories regarding resilience in older adults
2. Thai elderly context
    - 2.1 Demographic
    - 2.2 Lifestyle of Thai elderly
    - 2.3 Values and expectations of Thai elderly
3. Adverse life events occurring among the elderly
    - 3.1 Chronic illness
    - 3.2 Death of spouse or loved ones
    - 3.3 Retirement
    - 3.4 Disaster
    - 3.5 Homeless and dislocation

4. Mental health of the aged

    4.1 Positive mental health

    4.2 Protective factors of mental health

5. State of knowledge regarding resilience in the elderly

    5.1 Definition of resilience in the elderly

    5.2 The resilience construct in elderly population

    5.3 Influencing factors of resilience in the elderly

6. Existing resilience measurements

Philosophical and theoretical foundations

This section dedicates to philosophical and theoretical foundations of the study. It comprises of the philosophies underpinning the research methodology, theories regarding the elderly, and theories regarding resilience.

Philosophies underpinning research methodology

Philosophies underpinning the development and psychometric evaluation of TER scale are positivism, empiricism, and nursing philosophy. In a positivist research, a set of methods and techniques are created to allow researchers to answer questions about the interaction between human and environment. The idea is based on a traditional scientific view which believes that anything worth knowing can be known objectively, measured, quantified, typically represented, and numerically verified by independent observers. In the same way, empiricism is based on the assumption in which what is known can be verified through the senses (Chinn & Kramer, 1995) and involves the process whereby

evidence is rooted in objective reality and directly or indirectly gathered through the human senses. These concepts have been utilized as the basis of generating knowledge and are core of the scientific effort.

Based on these philosophies, substantial knowledge of resilience can be developed through assessing the function of the elderly to adapt to adversity. The resilience process, including the empirically-obtained components, needs to be verified in order to validate new knowledge. Resilience usually emerges during major adverse life events to which each individual react differently. Some elderly cannot successfully adapt which then leads to mental health problems. Others thrive by employing resilience function. Nurses should understand the pathology of resilience to gain useful knowledge in assisting the elderly to cultivate and nurture resilience.

Nursing philosophy is the most interested topic in nursing research as it encompasses ethical, ontological, and epistemic claim. The ethical element refers to the credible knowledge and moral principles nurses should possess in working with a target population. Example of the moral principles include respecting others' beliefs and values, viewing human being as more than and different from the sum of the parts, changing mutually and simultaneously with the environment (Parse, 1987). Respecting beliefs and values of the elderly is a key element to successful care since Thai elderly views were relies on the traditional values that expect to receive gratitude and respect of seniority. Today's elderly nursing care adopts holistic approach which believes in an individual as a whole and is composed of physical, psychological, social, and spiritual aspects. This moral character often gained more trust and facilitate the nurses' understanding of strategies that Thai elderly employed to improve their adaptation, hence resiliency.

The ontological aspect is a belief in the nature of human being, including environment, health, and nursing. This belief views resilience as a potential factor that

proposes well-being maintenance (Hardy, Concato, & Gill, 2004). The environmental factors – including socio, economic, and cultural structures have influence on mental health. Additionally, nursing is viewed as a role that facilities wellness as well as the individual assessment to locate factors influencing resilience, such as coping style, positive thinking, and daily life activities.

On the other hand, the epistemic claim refers to the way of knowing about the person, environment, health, and nursing (Fawcett, 2000**).** Carper (1978) identified four ways of knowing in nursing science empirics, esthetics, personal, and ethics that provide a guideline to holistic practice, education, and research. The way of knowing in this study built on empirical knowing that offers a framework on resilience in Thai elderly. The research provides an understanding and insight into the past experience of the elderly and offers a theory and knowledge to develop an appropriate scale specific to Thai elderly.

In conclusion, the philosophies underpinning the study are positivism, empiricism, and nursing philosophy which guide the research methodology. Since resilience has multi-dimensional attributes including dispositional, relational, situational, and philosophical aspect (Polk, 1997), research planning, from empiricism through quantitative perspective, produces a resilience scale and substantial knowledge regarding resilience in Thai elderly.

Theories regarding the elderly

In modern societies, old age reflects decline, diseases, disability, disrepair, and death. However, the reflection does not accurately describe the reality of aging but rather myths and stereotypes rising from a lack of proper knowledge about aging. Actually, older adults function well with little or no assistance and reported to be satisfied with their health and quality of life despite a high prevalence of chronic conditions (Depp &

Jeste 2006; Montross et al., 2006). Moreover, at no particular age, most adults aspire to grow old but also to enjoy physical and mental fitness in the old age. The study will focus on the aged who exhibits an ability to successfully adapt to and survive adverse life events. The following section explains two groups of theories i.e., sociological and psychological perspectives, that influence Thai elderly.

1. Sociological theories

Sociological theories of aging attempt to explain how societies influence its older adults and vice versa. These theories focus on the elderly adjustment to loss within the context of roles and reference groups. There are several sociological theories concerning the elderly but only the ones regarding the Thai elderly are considered. These theories view older adults from a narrow perspective (Miller, 2009) and address inequality in aging societies by explaining the emerging differences among groups. The selected sociological theories used in this study include disengagement, activity, and subculture theories.

1.1 Disengagement theory. It represents a transformation or a new way of thinking about aging that has shifted the focus away from the individual to the social system as the source of explanation (Lynott & Lynott 1996). The theory is based on the supposition that elderly become decreasingly engaged with the outer world and increasingly preoccupied with their inner lives. The idea may not best represent the overall Thai elderly, who are usually closely tied to their family units, but perhaps depicts some Thais who have withdrawn from family, peers, work, and community. Nevertheless, it's valuable for researchers to understand some adaptive behaviors of Thai elderly.

1.2 Activity theory. It is based on the supposition that older people remain socially and psychologically fit if they continue to stay actively engaged in life. Since active social participation plays an important role in positive adjustment in old age, a

successful aging is thus associated with staying active. There have been evidences confirming relationships between informal activity and life satisfaction (Lemon, Bengston, & Peterson, 1972), successful aging and having a range of meaningful activities in social, physical, and solitary aspects (George, 2006 as cited in Miller, 2009). Most Thai elderly enjoy daily activities in which they participated with others in the community, which, in turn, enhance their adaptation.

1.3 Subculture theory. It views old people as a group that have their own norm, expectations, beliefs, habits, and subculture (Rose, 1965). The theory believes that older people, compared to other age groups, are less integrated into the larger society and instead interact more among themselves. Furthermore, in the Thai elderly subculture, an individual status is based on health rather than occupation, education, or economic achievements.

2. Psychological theories

Psychological theories of aging refer to behavioral and development aspects of later adulthood, such as how aging affects behaviors, what factors affects aging, what factors influences longevity and quality of life. The theories address variables such as learning, memory, feeling, intelligence, and motivation, which are especially relevant to psychosocial function (Miller, 2009). Two major psychological theories of aging – human need theory and personality development theory – are described as follows.

2.1 Human needs theory. It is one of the psychological theories that have been used to address the concept of motivation and human needs. According to Maslow's theory (1954), the five categories of basic human needs, ranking from lowest to highest level, are physiologic needs, safety and security needs, love and belonging, self–esteem, and self actualization. People continually move between levels but always strive toward higher needs. This theory is particularly applicable to the participated Thai elderly

because they fit into Maslow's description of self-actualized people, which means fully-mature humans who possess such desirable traits as autonomy, creativity, independence, and positive interpersonal relationship.

2.2 Personality development theory. It addresses the question about whether the personality changes or remains the same throughout one's lifespan. The theory identifies personality types as predictive forces for successful or unsuccessful aging (Miller, 2009). Different personalities may have contributed to different life's adjustment, for example, the integrated personality group made positive adjustment to aging and was assigned as the mature. The armored-defended group either held on to patterns of middle-age habits as long as possible or closed themselves off from the world. Those with passive-independent personality had strong dependency and were described as apathetic people. And the un-integrated personality groups were the smallest and least adjusted among others. The last group included people with psychological problem, exhibited irrational behavior, and failed to cope with activities of daily living (Neugarten & colleages, 1968, as cited in Miller, 2009)

Most theories of personality development are based on the theories of Erikson (1963) which categorized personalities as either extroverted or introverted subjective experiences. A balance between the two orientations, both of which are present to some degree in all people, is essential for mental health. The later adulthood is a period of taking stock, a time during which a person looks backward rather than forward and is responsible for devoting serious attention to self. Resilience of the elderly, according to Erikson's theory, depends on accepting one's diminishing capacity and increasing number of loss. In old age, ego functions are increasingly turned toward the self and away from the outer world. Erikson's theory identifies eight stages of personality development from infant to elderly: trust versus mistrust, autonomy versus shame and doubt, initiative

versus guilt, industry versus inferiority, identify versus identify diffusion, intimacy versus self-absorption, generatively versus stagnation, and ego integrity versus despair. Each stage presents a person with certain conflicting tendencies that must be balanced before he or she can move successfully from that stage. However, in his later publication in 1982, Erikson redefined the meaning of old stage as balancing the search for integrity and wholeness with the sense of despair, focusing on relationships, religions, and aging. He also replaced the word "integrity" with faith (Krause, 2006).

In addition, the psychological theories of aging can be used to address certain issues experienced by the aged such as responses to loss and continued emotional development. Maslow's hierarchy of human needs is useful to conceptualize the nature of interventions in an institutional or home setting. If older adults feel insecure about the shelter being able to meet their needs, thus they are unlikely to develop trust. Older adults whose lower-level needs have already been met can be encouraged to work toward fulfilling higher-level needs such as self actualization.

Theories regarding resilience in older adults

Theories of aging and resilience emphasize emotional development, influential factors of resilience, and coping strategies. In order to address theories about resilience, a number of theories – emotional development during later adulthood, a middle range theory of resilience, stress and coping model – are explained as follows:

1. Emotional development theory. The theory believes that the elderly have a high capacity for emotional complexity (Ong & Bergman, 2004). Compared to young people, older adults tend to have as good, if not better, emotional regulation and emotional experience, and inner control over emotions. They also tend to use more self-calming strategies and have greater emotional control and more complex emotional experience

involving a combination of positive and negative emotions (Phillips et al., 2006). The superior emotional development in the elderly could very well be a vital contributing factor to the development of their resilience.

2. Middle range theory of Resilience. The study of this theory examined a combination of conceptual, qualitative, and quantitative research to define attributes or themes of resilience. The finding revealed four attributes namely: 1) dispositional attribute 2) relational attribute 3) situational attribute and 4) philosophical attribute (Polk, 1997). The details are described as follows:

2.1 Dispositional attribute. It relates to physical and ego-related psychosocial attributes of resilience. Those aspects address life stressors, a sense of autonomy or self-reliance, sense of basic self-worth, good physical health, and good physical appearance.

2.2 Relational attribute. It concerns an individual's roles in society and his/her relationships with others. These roles and relationships can range from close and intimate relationships to those with broader societal system.

2.3 Situational attribute. It addresses aspects involving a relationship between an individual and a stressful situation which include an individual's problem-solving ability, an ability to evaluate situations and responses, and an ability to take action in response to a situation.

2.4 Philosophical attribute. It refers to an individual's worldview or life paradigm, a lot of which includes several beliefs that promote resilience such as the belief of positive meaning in all experience, self-development, and the purposeful of life.

3. Stress and coping model. It is a cognitive theory about stress and coping. Stress model states that the nature of coping depends on at least one part of the nature of stressor and how the stressor is appraised. Stressors are demands made by the internal or external

environment that upset balance, thus affecting physical and psychological well-being and requiring action to restore balance (Lazarus, 1977). The model of stress and coping is a framework used to evaluate the process of coping in stressful events. When faced with a stressor, a person evaluates the potential threat using cognitive response that consists of primary and secondary appraisal. Primary appraisal is a person's judgment on the significance of an event as stressful, positive, controllable, challenging or irrelevant. The second appraisal is an assessment of one's coping resource and options (Cohen, 1984) which help address what one can do about the situation.

Coping process has two major functions, dealing with the problem that is causing the stress (problem focus coping) and regulating emotion (emotion focus coping) (Folkman & Lazarus, 1980 as cited in Lazarus & Folkman, 1984). Problem focus coping strategy encompasses the efforts to define the problem, generate alternative solutions, weigh the pros and cons of each action that may change what is changeable, and, if necessary, learn new skills. This strategy can change some aspects of the external environment or internal quality to alter self. Many of the efforts to alter self fall into the category of reappraisals, which means changing the meaning of a situation or an event, reducing ego involvement, or recognizing the existence of personal resource or strength.

In summary, philosophical and theoretical underpinning this study are used as a guide to the research methodology and validate the concepts of the study, respectively. The philosophies provide the reasons for the empirical research and the knowledge for the researcher to properly handle the target population. Meanwhile, the theories enhance a better understanding of the nature of Thai elderly and guide the conceptual construct of resilience in Thai elderly.

Thai elderly context

In Thailand, the definition of an older person means a person of 60 years of age and older (Knodel & Chawan, 2009), while some developed countries (e.g. UK, U.S., Japan, and Singapore) only consider those of 65 years and older. The latest survey in 2007 showed the number of aging population in Thailand at 6.8 million or 10.5% of total population. With its proportion of elderly population reaching 10%, Thailand has officially become an aging society as per the international standard (NSO, 2007; Sasat, Chuwatanapakorn, Pakdeeprom, Lerdrat, & Arunsang, 2009). By the year 2027, the number of Thai elderly is expected to reach 14 million, or 20% out of 70 million of the total population (Prasartkul, 2004). Thailand has just recently realized this aging phenomenon and thus has fairly shorter time to prepare for the tremendous change, compared to the developed countries as aforementioned. Today, the country is by no means ready to handle the rise of aging population or adjust to respond their needs such as health care and social services (Sritunyarat et al., 2002). In order to better understand the lifestyles and needs of the Thai elderly, the following section sheds light on the demographic, sources of support, educational and economic aid, and value and expectation of the target population.

The Thai elderly demographics

Thailand has seen a rapid and constant increase in both number and ratio of the older persons among its population. In 1994, the growth was at was 6.8% and then increased to 9.4% in 2002. The latest survey in 2007 reported the ratio to be at 10.7%, whose demographic composition was 44.6% male and 55.4% female, 62.5% was married while the other 41.9% included single widow, separate and divorcé. Past Thai education law required every Thai to have the minimum of primary education, therefore, the survey

found that the majority of Thai elderly had primary-level education (68.9%), while only 8.4% received higher than primary-level education, and 21.6% had less than primary-level education. However, some were reported to be illiterate (23.9%) (NSO, 2007; Knodel & Chawan, 2009).

Based on the National Statistics Organization of Thailand (NSO, 2007), Thai elderly are divided into three groups: 1) the young old (aged 60-69) 2) middle old (aged 70-79) and 3) the oldest old (aged more than 80). More than half of the Thai elderly are the young old (58%), while 31.8% were the middle old, and 9.8% are the oldest old. It is worth noting that the number of the oldest old is growing at a faster rate than the other groups which translates to high ratio of dependency (Knodel & Chawan, 2008).

Lifestyle of the Thai elderly

The lifestyle of Thai elderly relies primarily on the family's dynamics. Thai children are taught the value of filial piety in which the young must respect the elderly, especially their parents. Children are thus the primary source of support for their parents which comes by forms of money, food, and clothes (Knodel & Chawan, 2009) along with social, emotional, and material support and personal care during time of illness or frailty. Even after having families of their own, at least one child usually continues living with their aging parent(s) (Knodel, Saengtienchai, & Sittitrai, 1995; Wongsith & Siriboon, 1998). For this reason, most of the aged live with their children and/or spouse in the same household (60.1%) or in the same community (Knodel, et al., 2000). However, the number of those living alone has increased from 6.5% to 7.7% in 2007 (NSO, 2007). In addition, a study of institutional long-term care for older persons in Thailand (Sasat & colleagues, 2009) also revealed that 1,350 of the Thai elderly resided in resident homes provided by either government or private sector. Also, in the tragic reality, some of the

Thai elderly are homeless and has been living in Public Park, streets, and under bridges, some are beggars and completely fall out of statistics. In some cases, instead of receiving support, some Thai elderly continue to provide financial and material support for their disabled or unemployed children.

Almost half (35.7%) of the Thai elderly today continue to work to earn a living since Thai government has little to offer in terms of social security for the aged. The number of the elderly who remain in the work force has continuously increased (NSO, Thailand, 2007). Some Thai elderly report to have income from work, while the small percentage lives on pension or retirement payments. Thai government has recently approved a policy to provide 500 baths per month to all Thai elderly who are without pension. More than half of older persons have sufficient income, only 16 % reported annual income to be under 10,000 baths (Knodel & Chawan, 2009).

Moreover, religious belief is one other factor that has major influence over the elderly lifestyle. Since Buddhism is the principle religion of Thailand, majority of Thai elderly (95%) are (Theravada) Buddhist (NSO, 1998). The minorities are Muslims (4.6%), Christians (0.7%), Mahayana Buddhists, and others (Central Intelligence Agency [CIA], 2007). Therefore, for most Thai elderly, Buddhism heavily influence their lifestyle; daily routine consists of engaging in religious practices such as offering food to monks, going to temples, giving donation to those who are less fortunate (the poor, the disabled or the handicapped). Furthermore, the law of "Karma" (a belief that series of events in this life are explained as results of actions one has committed in the past life) inspire the elderly to continuously make merit in hope to reduce suffering in the current life and ultimately to guarantee the better next life.

Values and expectations of the Thai elderly

Based on the social hierarchy in Thai tradition, Thai people are to respect the elderly and accept that the young generation will take care of the aged. The elders are valued, respected, and honored by the young for their life experience. However, the aforementioned traditional concepts, as well as gratitude and seniority, are deemed more as a set of values than as a rule or practice to be followed (Meankerd, 2006). On one hand, older persons have the expectations to 1) be able to depend on their children, relatives, or neighbors for financial assistance, food and stuff, encouragement, and visits especially on festive/holiday occasions 2) receive respect and obedience from their children and 3) rely on the community and the government in providing social services (Meankerd, 2006). On the other hand, younger people have expectations that the elderly provide moral education and advice as well as help in ways that lessen burdens of their children.

Moreover, gender role has played an important role in Thai society, more strictly so in the older days to which today's the elderly belong. Thai women are born into a gender-bias society, which cultivates certain negative beliefs about females and pass them on as facts. For example, woman are intellectually and physically inferior to men, women who fulfill her duties as housewives are praised above women with good education or career (Kabilsingh, 1991), chronic diseases – such as diabetes mellitus, hypertension, and heart conditions – are much more prevalent among the female elderly than their male counterparts (Jitapunkul et al. 1998). In addition, Bunnag & Jitapunkul (1999) states that Thai female elderly have a greater level of disability than the male. To confirm the finding, Kespichayawattana & Jitapunkul (2009) found in their study that the percentage of female respondents with functional limitations was twice as high as male counterparts. Moreover, among Thai elderly who live with poverty, elderly women are found to be poorer than elderly men (Chawan, 1999).

The study of Knodel & Chawan (2009) revealed that most male elderly expected and had their wives as their caregivers (53.2%) while the females expected and had their children (73.2%). In the overall senior citizen community, more than half of males indicate that their spouses serve as their caregivers as well. Though, only 13% of the Thai female elderly have their spouses as caregivers. At age 60, women with active lifestyle are expected to live longer than males, however, at the same time, they are also expected to experience longer period of poor health or disability and not able to function without assistance.

In conclusion, Thai elderly women are expected to be caregivers. Most of them were taught to take care of others following the role of females in Thai culture such as mother, wife, caregiver, maid, and servant. When they experience functional limitations or any age-related troubles, most tries to depend on them. Therefore, the Thai elderly women are generally superior to men in dealing with their adversity life events.

Adverse life events

Life events often present important changes, negative and positive, that can happen at all time and have effects on life. Some events are generally associated with certain periods in one's life. At old age, individuals would have faced numerous challenges and changes that threaten their well-being especially age-related changes, e.g., social roles, income, relationships, physical function, loss of loved ones. Retirement is seen as one of major life events that does not only mean loss of income but also lesser opportunities for socialization. Some losses may be experienced through a single event. For example, an elderly who suffers from chronic illness does not only experience loss of physical function but also social role and independence. This type of event decreases the elderly capability to in effectively cope with changes and hard time. For this reason, the

elderly must learn to find new interests and activities to maintain the quality of life (Potter & Perry, 1998 as cited in Valfre, 2001).

Holmes and Rahe (1967) examined a list of 43 life events and concluded that stressful events might cause illnesses. Adverse events are significantly associated with higher depression scores and may have impacts on mental health (Glass, Kasl, & Berkman, 1997). Though there is limited number of research on adverse life events faced by Thai elderly, five main events are selected: 1) chronic illness 2) loss of spouse or loved ones 3) retirement 4) disaster 5) homelessness and dislocation.

Chronic illness

The elderly are typically in the stage of degeneration. Approximately 86% of the ageing populations have at least one chronic condition (Dunn, 2004) that may reduce their ability to care for themselves (Wang, Van Belle, Kukull, & Larson, 2002; Wolff, Boult, Boyd, & Anderson, 2005). Chronic illness is one of many significant problems experienced by Thai elderly. Around 50% of Thai elderly live with chronic diseases (NSO, 2007), among which are hypertension, coronary heart disease, stroke, and musculoskeletal problem. On one hand, chronic illness negatively affect mental health by triggering emotional distress, which is caused by loss of autonomy and livelihood, fear of death, and interference with social relationships (Frisch & Frisch, 2006). On the other hand, most mental health patients have much higher rates of having physical illness such as coronary heart disease, stroke, diabetes, infections and respiratory disease (Harris & Barraclough, 1998; Wulsin, Vaillant, & Wells, 1999; Phelan, et al., 2001; Osborn, et al., 2007). Chronic illness among Thai elderly is prevalent, as aforementioned; more than half of Thai elderly suffer from chronic illnesses (Sritunyarat et al., 2002) such as stroke, heart diseases, osteoarthritis, accidents, blindness, deafness, and hypertension. These illnesses

are fast becoming the leading causes of death and disability among Thai elderly (Jitapunkul & Bunnag, 1999).

Death of spouse or loved ones

Loss is a common feature of adverse life events, whether in reference to physical loss, the loss of hope, health, faith, or control, or the loss of long-held and often-treasured social roles (Black, 2006; Canham, 2009). Later life is also frequently associated with the loss of spouse or loved ones that has consistently been identified among the most stressful of normative life events (Miller & Rahe, 1997), rated as the most stressful life event in humans' experience (Holmes & Rahe, 1967), and the most concern of the elderly in America and Korean (Shin,Whang, Kim, & Lee, 1989). Widowhood is also correlated with a disturbance in one's normal routine (including participation in healthy behaviors) and an increase in stress (Holmes & Rahe, 1967). In addition, it is related to high suicidal rates (Kreitman, 1988 as cited in Ajdacic-Gross et al., 2008) and also associated with an increase in psychological distress (Avis, Brambilla, Vass, & McKinlay, 1991; Harlow, Goldberg, & Comstock, 1991; Schulz et al., 2001). Wilcox and colleagues (2003) finds that married women report to have better physical and mental health and generally have better health-related behaviors than widowed women. Although, almost one half of women over the age of 65 are widowed (Fields & Casper, 2001), the majority of them adapt to this loss with the passage of time (Canadian Study of Health and Aging Working Group, 2002; McCrae & Costa, 1988. In Thai context, only a small percentage of the elderly are separated or divorced but almost a third are widowed (Knodel &Chawan, 2009).

Retirement

Retirement is a milestone that marks the passage into the later stage of adulthood (Kim & Moen, 2002). When people retire, they inevitably cope with a change in social status. The psychosocial challenge may be cumbersome for people whose self-concept is based on the job status. The effects of retirement include loss of income, loss of identity and role, loss of status and authority, loss of structure and schedule, loss of purpose in life, and loss of peer contacts. These changes may not be the only causes of distress and suffering but also lead to impairments of physical, mental, and social functioning. For example, the study of Kim & Moen (2002) reports that retired women show higher initial levels of depressive symptoms and lower levels of morale, personal control, and perceived income adequacy compared to retired men's. Nevertheless, the fact is retirement and aging can be an enriching experience for some but a frightening one for others.

In Thailand, a little is known about the impact of retirement on the elderly's mental health. One study reveals that factors influencing the adjustment of retired elderly were of bio-social elements – life satisfaction and preparing to retirement (Mulsil, 1994). Others find that some retirees eventually feel depressed due to the detachment from their co-workers or jobs Jantanakul (1998). Moreover, one-fourth of retirees develop the feeling of apathy, loneliness, unhappiness caused by verbal disagreements within their family and boredom (Fonthongmongkol, 1995). As a result, retirement is one of the adverse life events occurring in later life that can induce psychological problems and a need to successfully and positively adapt to this particular circumstance among others.

Disaster events

Another adverse life event that also cast a major influence over mental health in the elderly is natural disasters. The greatness of its impact may partly stem from its

unpredictability. Most survivors of natural disasters experience a number of responses in the aftermath such as feelings of sadness, anger, guilt, numbness and sleep disturbances. These responses can be seen as normal stress reactions to an abnormal situation. However, some survivors are more affected than others and as a result develop serious mental health problems such as anxiety disorders, depression and post-traumatic stress disorder: PTSD (Norris et al., 2002). Knight, et al. (2000) discovered that the post-disaster depression levels were mostly associated with pre-disaster depression levels.

Though focusing on the subject of elderly victims, many studies show inconsistent results of the relations between age and mental health problems. For instance, some studies report that the elderly who survived Hurricane Mitch in 1998 show equal risk of developing PTSD as younger victims (Kohn et al., 2005) while others indicate that the elderly are more prone to experience PTSD than victims of other age groups (Phifer & Norris, 1989), especially true among female survivors (Ticehurst et al., 1996). Several other studies argue that the elderly victims are less susceptible to PTSD or other psychological disorder than younger victims (Bell et al, 1978; Bolin & Klenow, 1988; Huerta & Horton, 1978; Thompson et al, 1993). One explanation may be that older adults, through greater range of experience, may have developed more coping resources and so managed to minimize the impact of such a stressful event (Stefani, 2004).

In an effort to design interventions for elderly victims of natural disasters, several researchers worked with local agencies to focus on both of pre- and post-disaster planning particularly for the aging (Bell et al, 1978; Huerta & Horton, 1978; Bolin & Klenow, 1988). Older adults who frequent community or religious centers will be given useful disaster-planning preparatory workshops or classes (Anetzberger, 2002). However, the elderly victims of disasters should be taken to “special medical needs or shelters” where they can receive individualized care from staff members who have been trained to handle

their needs in such circumstances (Clinton et al., 1995). The World Health Organization: WHO recognizes the significant roles Buddhist monks and religion play in providing solace to grieved persons as a result of the 2004 Tsunami disaster (WHO, 2005).

Homeless and dislocation

Homelessness is the most serious and dramatic experience of all social exclusion phenomena. This social problem affects a growing number of people, most of who live in severe poverty, marginalized and abandoned. In Thailand, the homeless live in the streets, under bridges, public parks, and/or shelters. However, in Thailand, some elderly who are no longer satisfied with the condition of living in their own home can freely move to a shelter. Therefore, not all of the elderly in shelter homes necessarily share the same social characteristics as the homeless (e.g. poverty, etc.). In this study, the homeless and/or dislocated people refer to the elderly living in the shelters.

The association of mental health among homeless elderly reports that the elderly living in nursing homes have shown various emotions to relocation and residing in nursing homes (Salarvand, Abedi, Hoseinni, Salehi, & Karimollahi, 2008) have more depressive symptom than those in community dwelling (Lin, Wang, & Huang, 2007), and most are single or divorced, low income, and suffer from chronic illness that induce mental health problem (Aris & Draman, 2007). Furthermore, in the study of resilience among immigration older women found that those who have experienced greater immigration were more likely to be depressed (Aroian & Norris, 2000). In western societies, the elderly in nursing homes has high prevalence rate of depression or depressive symptoms ranging from 27% to 68% (McCurren et al. 1999, Achterberg et al. 2003, Jongenelis et al. 2004). Those studies confirm that dislocation and homelessness are among the most influential adverse life events that has such a great impact on the elderly mental health condition.

Mental health in old age

Mental health is defined as a state of well-being of the mind in which an individual realizes his or her own abilities, can cope with normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community (WHO, 2005). In a positive sense, mental health is the foundation of wellness and effective functioning of an individual and a community and so should be defined more than just as an absence of mental illness (Herrman, Saxena, & Moddie, 2005). Moreover, resilience, health asset, capabilities and positive adaptation are also a fundamental element of mental health that enable people both to cope with adversity and to reach their full potential and humanity (Friedli, 2009). In a negative sense, feeling of depression, extreme fear, or anxiety can induce mental illness. These negative situations are normal parts of life to which the mentally healthy can adapt whereas the mentally ill cannot. The lack of such adaptability then triggers abnormal feeling, thoughts, and behaviors to persist interfering with daily life and hindering psychological adjustment and eventually leading to mental illness. This study focuses on the positive psychological function that could be used to improve psychological health and prevent mental illness.

Positive & protective factors of mental health

Positive health highlights scientific and practical explorations of human strength that is generally viewed as emotion (affect/feeling), cognition (perception, thinking, reasoning), social functioning (relations with others and society), and coherence (sense of meaning and purpose in life) (Seligman, 2008). The human strength is an important

contributing factor to the ability to adapt positively to adversity and prevent mental illness. One aspect of positive psychological health is resilience which also contributes to successful adaptation despite adversity life events. It also contributed to mental health problem protection. In the same way, protective factors are influences that modify, ameliorate or alter a person response to some environmental hazard that predisposes to a maladaptive outcome (Masferty, Murray, & Gureje, 2005). They also play a critical role in contributing to psychological and physical well-being (Tugade, Fredrickson, & Barrett, 2004). However, mental health has a strong relationship with psychological, sociological, and ecological factors, all of which are protective factors of mental health. These protective factors have been studied in various population and mental health situations (Bettge & Sieberer, 2003; Poon et al. 1992; Meltzer, Gill, Pettigrew & Hinds, 1996; Rutter, 1985) and are divided into two groups, internal and external factors. Internal protective factors are the psychological strength including emotion control (Berry & Rickwood, 2000), feeling respected and valued, a sense of hopefulness, and reaction to stress (Williams & Pollock, 2001), personal attributes (Werner, 1994), and gender difference (Meltzer, Gill, Pettigrew, & Hinds, 1996). The external factors are the external and environment strength including healthy social support, economic and cultural structures, strong social networks, and social inclusion (Berry & Rickwood, 2000; Williams & Pollock, 2001), affection ties within family, and existence of external support systems (Werner, 1994).

State of knowledge in relation to the elderly resilience

Resilience is the interactive and relative concept between person and environment, rather than an individual trait. According to Jacelon, (1997) a review of current literature

on resilience finds that resilience is divided into two different views, trait and process. As a trait, resilience refers to a fixed characteristic that moderate the negative effect of stress and promote adaptation (Wagnild & Young, 1993). On the other hand, Flach (1980, 1988 as cited in Jacelon, 1997) describes the dynamic process of resilience as a system which can be learned at any point in life. Moreover, (Fine, 1991) discusses the process of resilience with respect to the demands of physical and neurological trauma in rehabilitation setting. APA (2004) backs up the opinion that resilience is a process not a trait, which one either has or does not, because it is part of the development of behaviors, thoughts, and actions that can be acquired by anyone. This study looks at resilience as a dynamic and fluid process that can be learned overtime and is reflective of a human-environment relationship. This process of resilience encompasses positive adaptation within the context of significant adversity (Luthar, Cicchetti, & Becker, 2000) which then leads to a positive outcome. The level of resilience is different among individuals depending on personal strength, styles and cultural background.

Definition of resilience in the elderly

The definition of resilience did not emerge from theory-based approach but through phenomenological identification of characteristics of survivors of emotionally-hazardous situations. The term resilience is widely used in the field of psychology and mental health. Other variable terms that have been used is bouncing back (Tugade & Fredricson, 2004) and spring back (Dyer & McGuinness, 1996; Luthar, Cicchetti, & Becker, 2000) These terms have not been consistently used in Thai context in which the word resilience holds the meanings of flexibility, strength and endurance, creativity, healthy state of mental health, and recovery. Nonetheless, the concrete interpretation, the

term is being viewed differently. Therefore, further clarification of the concept within specific culture, especially in Thailand, is much needed.

The study of resilience was initialized in the 1970s, with examining a group of children from an impoverished town and at-risk family situations such as poverty, parents who lived with alcoholism or mental illness. The study reported that two-third of these children grew up to become teens with destructive behaviors, such as chronic unemployment, substance abuse, and out-of-wedlock births (in case of teenage girls). However, one-third of the group did not exhibit destructive behaviors of any kind as teens. The latter group was labeled as being "resilient" (Werner, 1994). Years later, there have been more studies on resilience although among diverse population and circumstances, which causes confusion regarding the definition and meaning of the term (Heller, Larrieu, Imperio, & Boris, 1999; Kinard, 1998; Polk, 1997). Generally, resilience means an individual's ability to overcome major suffering by utilizing internal traits (e.g. hardiness, high self-efficacy, and lessons from the inevitable adverse life experience) along with external factors (e.g. social support) (Hardy, Concato, & Gill, 2004; Wagnild, 2003; Wilcox, et al., 2003). Likewise, the term resilience in the elderly refers to an individual's ability to adapt and restore equilibrium to her or his life in the face of hardship, to avoid or ameliorate the potentially damaging effects of stress (Wagnild & Young, 1993), and to achieve, retain, or regain a level of physical or emotional health after devastating illness or loss (Felten & Hall, 2001).

In summary, the definition of resilience related to both elderly and the general population refer to an individual's ability to successfully and positively adapt to significant adversity in life.

The construct of elderly resilience

The existing constructs of resilience in the elderly based on research evidences differ from those of younger population. Therefore, the constructs are malleable throughout the research process depending on the purpose. The diverse views about resilience, for example to view it as a response to a specific event or as a stable coping style (e.g. Luthar, Cicchetti, & Becker, 2000; Wagnild & Young, 1990), have impacts on its construct (e.g. Felten, 2000; Felten & Hall, 2001; Netuveli et al., 2008).

Wagnild and Young (1990) were the first to discover the construct of resilience concept in the elderly which was discovered during their qualitative study and were concluded into five individual characteristic characteristics: 1) equanimity: a balanced perspective of life 2) meaningful life: a sense of purpose in life 3) perseverance: the ability to thrive despite setbacks 4) existing aloneness: the recognition of one's unique path and the acceptance of one's life and 5) self-reliance: the belief in one's self and one's own capabilities. After some time, they developed the Resilience Scale using a sample of 810 community-dwelling older adults to evaluate the validity and reliability of the instrument. The validity evaluation of the resilience scale yielded two factors: personal competence and acceptance of self and life.

Later, similar studies of have discovered many other aspects of resilience in the context of the elderly. Talsma (1995) presents three dimensions of resilience include: 1) physical function 2) psychological function and 3) well-being, which obviously differ from the characteristics found by Wagnild and Young. Moreover, Felten and Hall (2001) points out that resilience is embodied in six broad themes or characteristics: 1) access to resources 2) prior experience with hardship as a means to cope with adversity 3) opportunity for a productive existence 4) ability to manage frailty 5) strong cultural/religious belief system and 6) spirited defiance. Furthermore, Lamond, et al. (2008) presents four factors that reflect resilience: 1) personal control and goal orientation

2) adaptation and tolerance for negative effect 3) leadership and trust in instincts and 4) spiritual coping. In addition, Resnick (2008) suggested that resilience is the ability to 1) make connections 2) build psychological strength (e.g. not seeing crises as insurmountable problems, accepting changes as a part of living) 3) remain hopeful in life (e.g. moving toward new goals, taking decisive actions, continuing to look for opportunities for self discovery, maintaining the positive view of self, maintaining a hopeful outlook) and 4) continue to take care of self. It is obvious that the concepts of resilience vary depending on views of researchers. In addition, the core construct of resilience should be encompassed multi-dimension construct including bio-psycho-social factors and spiritual beliefs.

Influencing factors of the elderly resilience

The construct of resilience among the elderly is closely associated to mentally healthy characteristics as its quality plays a greater role in mental health (Garmezy, 1993). Several evidences reported factors that are positively related to resilience as well as mental health such as internal factor, social support, past experience, and religious and spirituality.

Most internal factors contributing to resilience in the elderly were high levels of mastery, hardiness, positive emotion (Bonanno, 2004; Carver, 1998), and optimism (Mills & Dombeck, 2005). Additionally, personal control also plays a key role in promoting resilience in later life (Rowe & Kahn, 2000) while a sense of control is a strong predictor of psychological health (Ballts & Balts, 1986; Bandura, 1989; Lachman & Burack, 1993; Skinner, 1997).

In the same way, the external factors, such as social support, have important influence on mental health (Kuhirunyaratn, Pongpanich, Somrongthong, Love, &

Chapman, 2007) and well-being in the aged (McCauley, Blissmer, Marquez, Lerome, & Kramer, 2000). Social support is also a significant predictor of mental health outcome (McCulloch, 1995) – high level of the support before exposure to adversity minimizes the negative impact stress has on mental health (Netuveli et al., 2008). In addition, social support is positively related to self-esteem and optimism (McNicholas, 2002).

According to Felten (2000), resilience in a multicultural sample of community-dwelling women older than age 85 is found to be related to their experience with frailty, determination, previous experience coping with hardship, access to care, cultural beliefs on health, family support, self-care activities, caring for others, and efficient physical and mental function. Besides, Hardy, Concato & Gill (2004) indicates that a wide range of resilience factors in response to a stressful event – such as living with others, high grip strength, and independence in performing daily activities – to be strongly associated with high resilience.

Religion and spirituality are major coping resource as well as significant aspects of spiritual function in older adults (Biekenmaier, Behrman, & Berg-Weger, 2005). Religion refers to the beliefs, feelings, and behaviors that are associated with a faith community while spirituality is conceptualized as broader and more personal. Religious practices are associated with a formal church, other spiritual expression include prayer, meditation, centering, forgiveness, creative activities, love and caring, storytelling, and reminiscence, finding meaning in life, work in service to others, and rituals and other activities that nourish the spirit (Miller, 2009). Studies consistently find that religion becomes increasingly salient with age and that it has beneficial effects on physical and mental health of older adults (Idle, 2006; Kirby, et al., 2004; Krause, 2006).

Furthermore, spiritual, religious, and personal beliefs are most influential to mental health well-being and quality of life in Thai elderly. The common practices among

Buddhists were going to temple, prayer, meditation, and "tam-boon" (hope for a better next life) (Veerakeat et al., 2009). Meditation is an effective strategy to cultivate a calm and focused mind are essential to positive mental development. Most Buddhist elderly regularly performed religious activities (Chanakok, Yaowapanon, & Chawapong, 1992) which in turn help them solve problem, enhance self-esteem, and contribute positively to mental health (Suwankum, 2000).

In sum, resilience can be defined as an individual who manages to remain mentally healthy despite major adversity in life. We also learn that the factors that influence on resilience contribute positively to mental health. Therefore, resilience and mental health, when dealing with major suffering, are interchangeable concepts – resilience is a factor that contributes to being mentally healthy whereas mental health implicates resilience. In conclusion, factors influencing on resilience were internal factors, social support, past experience, religion and spirituality.

Existing resilience measurements

Resilience is a concept that is viewed as a continuum of successful adaptation. Most researchers considered resilience as personal characteristics that moderate the negative effect of stress and promote adaptation. Therefore, the existing resilience scales have been developed to measure all attributes which varied depending on the expectation of researchers. Six resilience scales, developed in the context of different countries including Thailand (See Appendix A) are used as references. The following section will be explained each of their strength, weakness, as well as measurement and cultural-specific issues.

Resilience Scale (RS)

The RS developed by Wagnild & Young (1993) consists of 25 items and 7-point rating (1-7). The purpose of their study was to identify the degree of individual resilience which is considered positive personal characteristics that enhance individual adaptation. The participants were 810 community-dwelling older adults. The scale was developed following the qualitative study of 24 women who had successfully adapted to each of their own major life events. The components of resilience concept were: equanimity, perseverance, self-reliance, life meaningfulness, and existential aloneness. However, the results from factors analysis yielded two factors composing of the scale, i.e., personal competence and acceptance of self and life. Furthermore, the study finding reported a positive correlation between resilience and adaptation outcomes (physical health, morale, and life satisfaction) and reported a negative correlation to depression. The researchers also reported sound good psychometric evaluation that supported the internal consistency, reliability, and validity of the scale. Besides having been tested by the study's subjects, numerous studies have also validated and confirmed that the scale works well with sample of all ages and ethnic group.

The strength of the scale is the effective development process – including empirical process, content validity evaluation, and the domains being developed from and by a specific population – and is reflective of the real-world setting. In contrast, the weakness is in the characteristic of the subject, i.e. all were women in old ages (53-95 years) that were not representative of the general population. Another major flaw is that the scale did not reveal broader understanding of the resilience concept. In addition, content validity was not established by panel of experts and items were all generated from interviews with only older women.

Connor-Davidson Resilience Scale (CD-RISC)

CD-RISC was developed by two psychiatrists, Connor and Davidson in 2003. Its components were drawn from the concept of hardiness, Rutter's work, and others. The scale contains 25 items, each of which is rated on a 5 point (0-4) that is higher scores reflects greater resilience. Six groups of sample were randomly selected, i.e., general population, primary care outpatients, psychiatric outpatients in private practice setting, subjects in the study of Generalized Anxiety Disorder, and subjects in two clinical trials of PTSD. The kind of resilience measured in this study was the stress-coping ability, an important treatment target in anxiety, depression, and stress reaction. The scale was evaluated for its reliability, validity, and factor structure. Data analysis indicated that the CD-RISC has sound psychometric properties with good internal consistency and test-retest reliability. The scale exhibits validity relative to other measures of stress and hardiness and reflects different levels of resilience among several target groups. This scale may assist the process of identifying levels of resilience in a wide range of populations as well as quantifying changes in resilience during therapy. The limitation of the scale is a lack of precise conceptual basis for some factors that were expected to reflect the concept of resilience.

Adolescent Resilience Scale (ARS)

The ARS was developed by Oshio, Kaneko, Nagamine, & Nakaya, (2003), consists of 21 items and a 5-point rating scale (1-5). The scale was designed to measure psychological features of resilience among Japan youth. Its construct consists of three factors, i.e., novelty seeking, emotional regulation, and positive future orientation. This research also utilized the negative life events scale and the general health scale. A cluster analysis for the Negative Life Events Scale and General Health Questionnaire yielded three clusters: (1) mentally healthy with little experience of negative life events (2) poorer

mental health with many experiences of Negative Life Events (3) mentally healthy despite many experiences of Negative Life Events. These three groups were respectively defined as: 1) well adjusted 2) vulnerable and 3) resilient. Mean differences of scores on the scale among the three groups were subjected to one-way analysis of variance. The mean scores of both the well-adjusted and resilient groups were higher than that of the vulnerable group. The result supports the construct validity of the ARS. However finding may be difficult to generalize in other population (Oshio et al., 2003). Also, the application in the literature is available only in Japanese.

The Brief Resilience Scale (BRS)

The BRS, created by Sinclair & Wallston, (2004), aim to assess the ability to bounce back or recover from stress. Its characteristics were examined in four samples, including two student samples, samples of the cardiac, and samples of chronic pain patients. The BRS was reliable and represented a unitary construct. Its score was predictably related to personal characteristics, social relations, coping, and health in all samples. It was negatively related to anxiety, depression, negative effect, and physical symptoms. The scale was intended for use to measure optimism, social support, and type D personality (high negative affect and high social inhibition). The result showed large differences in BRS scores between cardiac patients with and without type D and women with and without fibromyalgia. The BRS is a reliable means of assessing resilience as the ability to bounce back or recover from stress and may provide unique and important information on coping with health-related stressors. For general population, the BPS is the only that specifically measure used to assess the concept of resilience whose meaning is bounce back or recover from stress. This scale has its weakness in cultural specificity because the subjects were people who were already ill. The socio-cultural environment

shapes the recovery of a person. Therefore, people from different culture may learn different ways to bounce back and recover from stress.

Resilience Factors Scale for Thai adolescents (RFS)

The RFS was developed by Takviriyanun (2008). The scale construct was based on three concepts, i.e., I have (external support), I am (inner strength), and I can (interpersonal & problem-solving skill). (Grotberg, 1995, 2003). Even though the researcher attempted to use the concept of protective factors of alcohol-risk behavior but it did not precisely define its own components. Furthermore, there was also a failure in incorporating this concept with the Grotberg model, as aforementioned.

The subjects of this study were 10^{th} – 12^{th} graders from four high schools in Bangkok. The specific subjects may contribute to the limitation of the study to generalize, especially for the elderly.

Resilience Quotient (RQ)

The RQ is the latest version of resilience assessment in Thai context. Developed by the Department of Mental Health in 2008, the scale aimed to identify weakness, strength, and self development among Thai adult population ages 25-60 years old while facing hard times. The scale consisted of 20 items within 3 domains, i.e., the ability to resist stress, the ability to find hope and will to live despite difficulty, and the ability to persevere through difficult circumstance. The methodology involved a review of literature published in Thailand and other countries including qualitative study, and consensus of experts. The reliability and validity were evaluated. The participants were 4,000 Thais living in 12 provinces. According to the investigators, RQ refers to an individual's ability to adapt and recover from suffering. The strength of the scale is the

use of Thai language as it is most-suited to the subjects and the study's context, available scale, and a self-report questionnaire influence to all readable Thai. Even though the scale was developed in Thailand, there still are some limitations in applying it with Thai elderly in term of the user that specified for general population who aged 25 – 60 years including the limitation of resilience that can develop over time depending on life development. Regardless, the scale has been used in various situations, such as general population, flu epidemic prevention program, and political distress.

Summary

The early stage of this study included review of literature related to study context which could be categorized into six parts, i.e., 1) philosophical and theoretical foundations of the study, 2) state of knowledge related to elderly resilience 3) Thai elderly situation 4) adversity life events among the elderly 5) mental health in the old age and 6) existing resilience measurements. Three philosophical underpinnings the study were positivism, empiricism, and nursing philosophy. The development of knowledge regarding the elderly resilience is illustrated through a concept study from the past research conducted in Thailand and other countries. Moreover, two perspective theories, one is related to the Thai elderly and the other is related to resilience, are explained through several dimensions, such as sociological perspective theory, psychological perspective theory, and theories related to resilience. The first dimension described the target population, i.e., Thai elderly, the second dimension explained adverse life events experienced by the elderly, and the last dimension covered the six existing resilience measurements that are beneficial indicators. However, literature review exposes an absence of measurement tool that would fit with elderly in Thai context.

CHAPTER 3

METHODOLOGY

This chapter describes the methodological aspect of the present research. Following step of scale development (DeVellis, 1991), the methodology of this study was conducted in two stages: 1) stage of scale development and 2) stage of psychometric evaluation. The first stage was consisted of three steps, domain identification, items generation, and scale format determination. The second stage included five steps, having the initial term pool reviewed by experts, considering inclusion of validation items, administering items to a development sample, evaluating the items, and optimizing scale length. The detail of each step is presented as follows:

Stage of scale development

The purposes of this stage are: 1) to explore the concept of resilience 2) to specify the domains of resilience among Thai elderly 3) to generate an items pool and 4) to design a format scale. This stage consists of three steps: 1) domain identification 2) item generation 3) scale format determination. The details of each step are described as follows:

Step 1: Domain identification

The purpose of this step is to explore the concept of resilience among Thai elderly and specify the domains of the Thai Elderly Resilience scale. Resilience has been mostly studied among western population, only a few conducted in Asia

including Thailand. However, no study has ever targeted Thai elderly. Therefore, the initial conceptual structure of the resilience were generated from literature review (Connor & Davidson, 2003; DMH, Thailand, 2008; Grothberg, 1995, 2003; Polk, 1997; Resnick, 2008; Rutter 1985, 1999; Ryff, Singer, Love & Essex, 1998; Staudinger, Marsiske & Baltes, 1993; Takviriyanun, 2008 & Wagnild & Young, 1993). Then, a qualitative approach was used to confirm the pre-specified structure of the elderly resilience from the literature in order to fit with the Thai elderly context. The participants & setting, instrument, data collection, and data analysis are presented as follows:

Participants & setting. Participants were a mix of those who were purposely selected, to ensure that specific target cases were covered. The purposeful recruiting criteria were that a person must be 1) Thai elderly with 60 years old or older, 2) have past experience that required adaptability to survive major life adversity, 3) mentally healthy identified by Thai Mental Health Indicator assessment that the score must be greater than 27, and 4) able and willing to discuss their traumatic past experiences. As a result, Thai elderly, of multiple characteristics, who had experienced various adversities in life, e. g., natural disasters, loss of loved ones, severe chronic illness, and/or economic problems, were selected. According to Lincon & Guba (1985), twelve to twenty participants are needed if a researcher looks for disconfirming evidences or attempts to reach maximum variation. Therefore, fourteen elderly were used in this step.

In order to obtain samples that represent the multiple characteristics in Thai context, fourteen Thai elderly, aged 60 and older, were drawn from four provinces, each of which represents each of the four regions in Thailand, i.e., Chiang

Mai (north), Khonkean (northeast), Ratchaburi (middle), and Suratthani (south). The elderly participants shared one quality having lived through various major adversities and yet maintained mentally healthy. The collective life adversities included losing home (living in shelter homes), having major chronic illnesses (cancer and stroke), and facing multiple losses of loved ones, being single mother taking care of two psychotic children, and living with poverty.

Instrument. Two instruments were used in this step. Firstly, the Thai Mental Health Indicator (TMHI), a reliable instrument for assessing the mental health of the Thai population. The short versions consisting of 15 items are easy to use in elderly population. The scores were divided into 3 groups, good (35-45), fair (28-34) and poor (<27). It was used to identify the elderly being mentally healthy. The elderly who having the TMHI scores more than 27 will meet the inclusion criteria. Secondly, the semi-structured interview guideline including a demographic data form was used to explore the experiences in facing adversity event of the elderly. The respondents were asked to describe their successful coping experiences based on the aspects of "I AM", "I HAVE", and "I CAN". Examples of interviewing questions were: what are your personal traits that contribute to your ability to rapidly bouncing back from hardship? (I AM), what are the kinds of support that help in your successfully cope? (I HAVE), and what are your specific abilities in dealing with life suffering? (I CAN). Additionally, probing questions were used to assist the participants to directly and effectively respond to these main questions (Appendix B) .

Data collection. The elderly who met the recruitment criteria were interviewed after they had agreed to participate in the study either via verbal agreement or signing a consent form (Appendix C). In order to ensure that the

participants could freely express their experience, each of them was asked to individual interview in a private room or other places depend on subjects need. The interviews were conducted in a slow pace while using a volume appropriate to the elderly hearing limitation. In case of the elderly speaking local dialects, research assistants of each region served as interpreters during the interviews. The participants who expressed emotional suffering were referred to receive proper mental health services as needed. The length of each interview varied from 30 minutes to an hour and ended when target data was acquired. Finally, the data on tape recordings and field notes were precisely transcribed. In order to verify accuracy, validity, and cultural congruency of the identified domains, approval from six elderly represent Thai culture using group discussion was obtained.

Data analysis. The qualitative data was analyzed and encoded to develop the themes portraying the Thai elderly resilience. After discussions with the research advisor(s), the domains were finalized. Domains of resilience from the emerging themes and pre-identified domains extracted from literature reviews were consolidated into the conceptual structure of Thai Elderly Resilience scale.

Step 2: Item generation

An item pool was generated from the specified domains of Thai elderly resilience identified during the previous step of domain identification. The procedures of this step are as follows.

1. Developing conceptual definitions of each domain found in step 1
2. Formulating operational definitions of the domains
3. Identifying observable indicators of each domain.
4. A blue print of item matrix was taken out and the item pool was generated

Step 3: Scale format determination

Thai Elderly Resilience Scale (TER scale) was designed to measure the level of subjective resilience in Thai elderly. The first draft, emerged in step 2, were done in both Thai and English. Thai version was developed for Thai-speaking experts, while English version was for English-speaking experts. The length of item statement and the scale's format was created based on specifically Thai elderly characteristics.

Stage of psychometric evaluation

The purpose of psychometric evaluation stage is to examine the validity and reliability of the new instrument measuring Thai elderly resilience. In order to simplify procedures explanation, stage of psychometric evaluation based on DeVellis's (1991) were orderly modified to 5 steps, i.e., 1) content validity evaluation, 2) face validity evaluation, 3) pretesting, 4) field testing, and 5) final testing. Each step including sample & setting, instrument, data collection, and data analysis were described.

Content validity evaluation

It refers to having the initial term pool reviewed by experts defined by DeVellis. Content validity of the new measure lies in the hand of a panel of experts who determine whether the contents of the measure are consistent with what it is supposed to measure (McDonale, 1999). This procedure is a psychometric method used to establish the contents that are representative of the concepts (Merle, 1998). It shows how well test items reflect the construct's domains. The content validity evaluation of this study is as follows:

Sample & setting. To determine how well the specific items represent the universe of items, Lynn (1986) recommended having a minimum of five experts to determine the generated items can minimize erroneous conclusions. Therefore, the present study invited seven experts specialized in various areas relevant to the study, one elderly nursing expert, one mental health and psychiatric nursing experts, one elderly psychiatrist, one psychologist, one experienced researcher on scale development of resilience in adolescent and one American professor working as a mental health nurse practitioner. Since most attributes of the elderly resilience were found in international evidences, a mental health nurse practitioner, also a native English speaker, was invited to check equivalency of the specified and pre-specified domains as well as consistency item meaning of the instrument.

Instrument. Two instruments used in this step were 1) the first draft of TER scale, in both Thai and English 2) a content validity evaluation form (appendix E). The Thai TER scale was submitted to six experts, while the English version was submitted to the English expert. The evaluation form was also submitted for the experts to review the items of the scale. The conceptual framework, operational definitions of Thai elderly resilience, the blue print of item matrix, and definitions of each subscale were included in the submission.

Data collection. Firstly, the experts were informally approached and asked to evaluate the instruments. Secondly, a letter from the Faculty of Nursing, Prince of Songkla University, was sent to each of the experts who had agreed to participate. The scale was submitted to a panel of seven experts for review, commentary, identify and delete theoretically incoherent items. Initially, the panels of seven experts were asked for scale evaluation. However, there is one expert leaved

from this evaluation process due to unavailable time. The experts were asked to use a rating form, consisted of four-point rating scale as shown below, to rate the relevancy of each item.

1 = not relevant 2 = somewhat relevant

3 = quite relevant 4 = exactly relevant

Lastly, the experts were asked to evaluate clarity and conciseness, using yes or no responses on each item, and were also invited to make comments on any items that seemed ambiguous, unclear, or inappropriate.

Data analysis. The content validity was calculated for Content Validity Index (CVI). The CVI for the entire instrument is the proportion of the total items judged as content valid (Lynn, 1986). The CVI greater than or equal to 0.80 can be accepted (Waltz, Strickland & Lenz, 2005). In order to support the content validity of total items and overall TER scale, items that were rated at level 3 or 4 were retained while those rated with lower numbers were deleted. However, unacceptable items were discussed with advisor(s) for modification. A re-evaluation based on the experts' assessment was made in order to ensure the scale's content validity. The second draft of TER scale was thus achieved in this step.

Face validity evaluation

Face validity is a property of a test intended to measure something. The test is said to have face validity if it "looks like" it is going to measure or what it is supposed to measure. This character includes comprehensible items and how easy or difficult to complete the scale. The number of informants is not required for face validity because it is a qualitative measure, not quantified by statistical methods. Moreover, it is normally considered as the least scientific measure, such as the use of untrained

individuals for the sake of convenience, this measure is subjective and not quantifiable.

Sample & setting. To determine the comprehensive of each item and the practicality of completing the scale, five Thai elderly, who have various education level, age range, gender, and marital status, were purposely selected as participants.

Instrument. The first draft revised from step of content validity was used as instrument in this step.

Data collection. Face validity in the present study was examined by five Thai elderly, who were selected based on education level, age range, gender, and marital status. The five elderly were asked to review the first draft of TER scale and respond to the comprehensibility of each item and the practicality of completing the scale.

Data analysis. A modification was made to create the second version while ensuring the comprehensibility and practicality of the TER scale.

Pre – testing

Two methods used in pre-testing were internal consistency, and items analysis. The sample & setting, instrument, and data collection are described first then data analysis of each approach is to follow:

Sample & setting. According to Polit & Hungler (1999), at least 30 subjects are an appropriate number for pre-testing. Thus, thirty Thai elderly were invited to be the subjects in this study. Also proposed by Polit & Hungler (1999), purposive sampling is based on the belief that the researcher's knowledge about the population can be used to handpick particular cases to be included in the sample. The subjects of this study were the Thai elderly aged 60 years or older and had

experienced at least one adverse life event. Samples from various geographic areas were also recruited.

Instrument. Pre-testing instrument was the TER scale second draft also including demographic sheets.

Data collection. Data collection for the two approaches was conducted with the same subjects. First, an informal contact was established between the investigator and each of the subjects, and then an informed consent was obtained on paper or by an oral agreement. The subjects were asked to rate the questionnaire by themselves. Those, who were unable to respond the questionnaire due to certain functional limitations, such as illiteracy, were read to by the investigator and then allowed to select the rating of choice on their own.

Data analysis. The data analysis was performed following the testing method. The pre-testing of item analysis and internal consistency are described as follows:

1. Item analysis.

It is one of the statistical procedures permitting an examination of the pattern of responses to each item that provides guidelines for revision. In this study, the alpha correlation of item to item, item to subscale, item to total scale, subscale to subscale, and subscale to total were analyzed. The items were thus considered whether to be retained, revised, or deleted, at this step.

2. Internal consistency.

It concerned with the homogeneity of the items within a scale. The relationships among items are logically connected to the relationships of items to the latent variables, and high inter-item correlations mean the items are all measuring the

same things (DeVellis, 1991). This study used a coefficient alpha or Cronbach's alpha as a measure of reliability of the internal consistency to prove that its items were highly correlated. All subscales and total scale were calculated for Cronbach's alpha coefficients. The pre-testing process yielded results with acceptable statistics. Therefore, the second draft of TER scale was developed to further conduct field testing.

Field testing

Field testing was conducted to re-evaluate internal consistency and item analysis which included factor analysis. Sample & setting, instrument, and data collection were conducted at the same time, and so are to be described first, and then data analysis of each approach are elaborated further as follows:

Sample & setting. The sample in this step included the elderly without psychiatric disorder residing in various settings, e.g., shelter homes, outpatients of PCUs, chronic illness clinics, and outpatients of psychiatric hospitals, as well as disaster-affected communities, each of which represented variety of mental status. The elderly who had physical and psychological limitations, such as blindness, deafness, speechless, dementia, and moderate to severe psychiatric conditions, were excluded. The sample size was estimated based on statistics assumptions. Based on the factor analysis requirements, at least 10 subjects are needed for each items (Munro, 2005), a minimum five subjects per item is needed for a psychometric evaluation of a new measure (Nunally & Burnstain, 1994; Burn & Grove, 1987), and the sample of 100-200 are adequate for factor analysis because factors are distinct (Tabachnick, karolinska & Fidell, 1996). In order to establish an adequate sample size and be

representative of Thai elderly context, 517 subjects were deemed sufficient for field testing.

Instrument. The second draft of TER scale, which was corrected after pre-testing, including a demographic data form, was used as an instrument in this step.

Data collection. Initially, the directors and/or heads of each organization accountable for the target subjects were informally contacted to obtain permission to work with the selected subjects. Once the informal permission was granted, a formal letter from Faculty of Nursing, Prince of Songkla University, was mailed to them. Direct contacts with the subjects were then made to provide further information and decide on the time and place for a meeting with the investigator. At these meetings, the elderly were invited to participate in the study and presented with an informed consent form. With permission, the participants were asked to fill out a demographic sheet and respond to the questionnaire. In case of subjects with functional limitations, the investigator assisted them by reading the questionnaire loudly and slowly to them before asking them to rate their opinion, represented by the scale, on each item. All data was organized after data collection was completed. The analysis of demographic characteristics and each of evaluating methods were performed.

Data analysis. After being reviewed for its completeness, the data was then encoded and processed for statistical analysis using computer program. Descriptive statistics of frequency, percentage, mean, and standard deviation were calculated to help analyze the data regarding socio-demographic, physical and mental health status, and experience facing life adversities.

1. Internal consistency

The internal consistency estimate using Cronbach's alpha coefficients of the total TER scale and dimensions were calculated. The alpha coefficients of 0.7 is minimally accepted for a newly developed instrument (Nunally & Bernstein, 1994)

2. Item analysis

According to Ferketich (1990) and Nunally and Bernstein (1994), the items of TER scores were analyzed: Firstly, the criterion level, used as an arbitrary guide for identifying and discriminating, was 0.3. Item(s) with a level below 0.3 were removed from the scale's item set. Secondly, the criteria for the inter item analysis was an average correlation between 0.3 and 0.7, which were desirable. Lastly, the criterion in the item analysis was the internal consistency estimate (alpha), should be not decreased if the item was deleted (Ferketich, 1990; Merle, 1998). Prior to deleting the items which failed to meet the criteria, the semantic meaning of each item was reviewed with the scale descriptions. However, even though the items failed to meet the criteria, they would still be preserved if their contents were deemed to be strongly consistent with the theoretical definitions of the scale's dimension. Item analysis occurred during the second round of the evaluation of factor analysis, with estimated sample based on statistic.

3. Exploratory factor analysis

Factor analysis is a useful approach in assessing construct validity. It was designed on a conceptual framework, a measure to assess various dimensions or sub-components of a phenomenon of interest, and a wish to empirically justify these dimensions or factors (Soeken, 2005). The present study expected to identify the factor structure for a set of Thai elderly resilience, thus the exploratory factor analysis

needed to take place. Exploratory Factor Analysis (EFA) is the statistical method of factor analysis that has been most frequently used to examine construct validity because it is designed to link observed measures to a smaller number of underlying conceptual variables (Maruyama, 1998). In this study, EFA was used to support the internal structure of the TER scale item set. A principle component and varimax methods were conducted to extract and rotate the components. An eigenvalue equal to or greater than 1.0 was used as a criterion to extract the number of components. The items whose factor loading ≥ 0.45, claimed to have practical significance (Hair et al., 1998). Finally, the scores from the respondents were performed to extract and specify factors of the TER scale. The fourth draft of TER scale was a result of this step and was then further evaluated for its reliability and validity in the final testing.

Final testing

Final testing was performed to conclude the final draft of TER scale version. The scale derived from factor analysis was used as an instrument in this step. Additional reliability and validity were confirmed, [i.e., hypothesis testing, known group comparison, stability evaluation, and internal consistency assessment. The sample & setting, instrument, data collection, and data analysis of each approach are elaborated as follows:

1. Hypothesis testing

The hypothesis for this study was “Thai elderly who are resilient would be mentally healthy status” adopting the notion that resilience is a predictive factor to mental health. Therefore, to confirm the construct validity of TER scale, the hypothesis of resilience scores was tested. Two instruments used were the fourth draft

of TER scale and Thai Mental Health Indicator (TMHI). Both scales were presented to 30 elderly of each group at the same time. The retrieved data was analyzed to examine the relationship between the level of TER and TMHI scores. Pearson product-moment correlation coefficient was used as statistic analysis. The hypothesis could be accepted as evidence with construct validity when high correlation between two instruments is found.

2. Known group comparison

The known group comparison is typically conducted with two groups of subjects known to be extremely high and extremely low in the characteristics (i.e. resilience) measured by the instrument (Soeken, 2005). Many studies assert that family and social support networks are external factors that promote resilience (Day, 2006; Mills & Dombeck, 2005; Markstorm, Mashall, & Tryon, 2000; Newman, 2002; Plumb, 2011; Saiqa, 1998; Friborg et al., 2006; Hardy et al., 2004; Luthar et al., 2000; Werner & Smith, 1992). Two groups of the Thai elderly representing two discrepancies of social support, i.e., the elderly in shelter home who seem to be lacking of family support vs. the elderly living with their family who maintaining support from their significant others. An assumption confirmed by multiple studies indicates that the elderly in nursing homes have shown various emotions in response to relocation and residence in nursing home (Salarvand, Abedi, Hoseinni, Salehi, & Karimollahi, 2008). The majority were shown more depressive symptom than those in community-dwelling group (Lin, Wang, & Huang, 2007). Moreover, most of them are single or divorced, low income, suffer from chronic illness, which induced mental health problem (Aris & Draman, 2007). All of the above factors are found to be

related to the negative physical health outcomes in older adults (Hawkley & Cacioppo, 2007).

The two groups were comprised of the elderly who were supposed to exhibit high resilience in one group and low resilience in the other. The instrument was administered to both groups and the differences in the scores gained by each group were examined. The sensitivity of the instrument was shown in the characteristics that were being measured and the mean performance of these two groups which differed significantly. The sample, setting, instrument, data collection, and data analysis for this approach are described in the details as follows:

Sample & setting. Two groups of Thai elderly were selected. The first group consisted of 30 participants living with spouses and children in their home. The other group consisted of 30 Thai participants living in shelter home. A sample size of 60 subjects (30 for each group) was needed to achieve the power at the 0.8 levels and the alpha at 0.05 levels.

Instrument. The fourth draft of TER scale along with a demographic data form was used as an instrument to conduct construct validity testing using known group comparison.

Data collection. The data collection was performed as the same field testing procedure.

Data analysis. The received data was calculated. A mean of each group was analyzed and compared. The t-test statistic was used to compare the mean difference. The significance between the mean scores of two groups were accepted and claimed as construct validity.

The reliability of an instrument refers to the instrument's ability to produce the same results on repeated measures. The degree of reliability is usually determined by using correlation procedure (Knapp, 1991). Correlation coefficients can range between -1.00 to + 1.00. Positive correlation of reliability is expected. A correlation coefficient greater than or equal to 0.70 is accepted for a newly developed instrument (Burn & Grove, 2001; Lynn, 1985, Polit & Hungler, 1999). Moreover, the percentage and rate of agreement may also be used to determine the reliability when observers and raters are used in study (Knapp & Brown, 1995; Waltz, Strickland, & Lenz, 2005). To ensure the psychometric properties of the TER scale, the internal consistency of items was evaluated three times: pre test, field test, and final test. Furthermore, stability evaluation using test re-test method was included in the reliability evaluation.

3. Stability evaluation

The test – retest method was used for the stability examination. The Pearson product-moment correlation coefficient was taken as the estimate of stability. The closer the coefficient is to 1.00, the more stable the measurement. The subjects in this test were 30 Thai elderly living in a community. They were asked to respond to the instrument twice in two weeks. The objectives of the method were explained to the subjects. After the data collection was finished at the first meeting, an appointment for the second data collection was then made. The scores obtained from both administrations at two different times were calculated and interpreted to figure out stability.

4. Internal consistency

The final draft of TER scale was tested for its internal consistency once more. The sample & setting, and data collection were as field testing step. The scale

retrieved from factor analysis was used as the instrument. The data analysis was performed using Cronbach's alpha coefficients, with an acceptable alpha of 0.7.

Protection of human subjects' right

Prior to data collection, a consent form, which was presented to the participants prior to their involvement with the study, was designed by using qualitative approach in the psychometric evaluation stage. The request to conduct the study, the consent form, and the research plan were submitted to the Ethical Committee, Faculty of Nursing, Prince of Songkla University. The consent form included title and purposes of the study, name and address of the researcher, a clause assuring the subjects' autonomy and freedom to withdraw from the study at any time and that the result was reported only in a group format. In any events that the participants should express emotional suffering, they would be referred to mental health professionals to receive proper psychological support. Once the approval to conduct this study was granted by the Ethical Committee, all participants were informed via verbal and written explanation about the study objectives, name and address of the researcher. Voluntary expression to participate, freedom to withdraw, and commitment to keep all the participants' information private and confidential have been and will continue to be made (See appendix C).

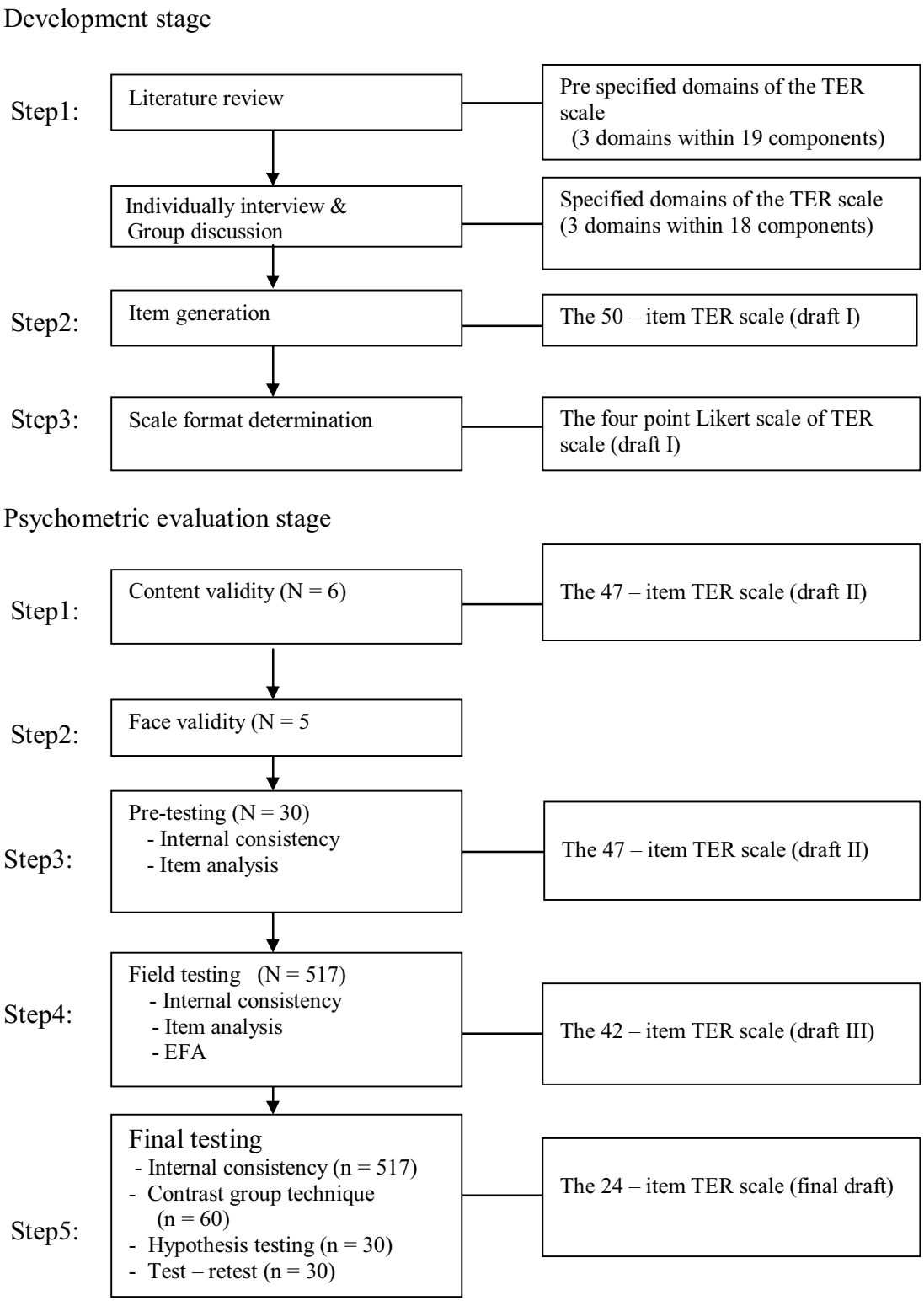

Figure 2 Processes of Scale Development and Psychometric Evaluation of TER Scale

CHAPTER 4

RESULTS AND DISCUSSION

This study aimed to 1) identify the conceptual structure of the elderly resilience in Thai context 2) develop an instrument to measure resilience in Thai elderly 3) evaluate the psychometric properties of the newly developed measure. As shown in figure 3, the results are presented into two stages: 1) stage of scale development and 2) stage of psychometric evaluation. In addition, each research question is also discussed.

Results

Stage of scale development

The results of this stage are divided into three steps: 1) domain identification 2) item generation and 3) scale format determination.

Step 1: Domain identification

As suggested by DeVellis (1991), the first step in scale development is to use a theory as an aid to clarify the content of the scale that we want to measure. Therefore, the pre-specified domains were derived from theories and concepts of resilience in the elderly. An initial conceptual structure of this study was based on Grotberg's conceptual framework of resilience (1999, 2003), which was originally used in children population, as well as a consolidation of literature on resilience in the elderly. The three domains, "I AM," "I HAVE," and "I CAN," consisted of pre-specified 19 components, 1) I AM or inner strength, indicated by 12 components, i.e.,

being in good health, equanimity, self-reliance, meaningfulness, sense of humor, positive thinking, perseverance, caring for others, health-promoting behaviors, sense of coherence, hardiness, and optimism 2) I HAVE or external support, indicated by 4 components – social role and close relationship, social support, spiritual support, and opportunity for spiritual practice 3) I CAN or interpersonal and problem solving skills, indicated by 3 components – maintaining connection to others, spiritual coping, and effective problem-solving.

The data, gathered by interviewing and group discussion of 14 elderly participants, was analyzed and interpreted to define the conceptual structure of resilience among the Thai elderly and form specified domains of the concept. The findings of the preliminary study indicated that there were slight discrepancies between the pre - specified and specified domains. Three pre-specified components, i.e., sense of coherence, hardiness, and optimism, of the first domain ("I AM") were removed because they were not accurately representative of the Thai elderly participants. Instead, life satisfaction, which was deemed more reflective of Thai culture -specific resilience, was added to the domain. All four components of the second domain ("I HAVE") were retained while a new component, "help seeking", was added to the third domain ("I CAN"). In sum, three domains of the Thai elderly resilience were maintained but only consisted of 18 specified components. Table 1 compares the pre-specified components extracted from literature review and specified domains revealed from the interviews and group discussions.

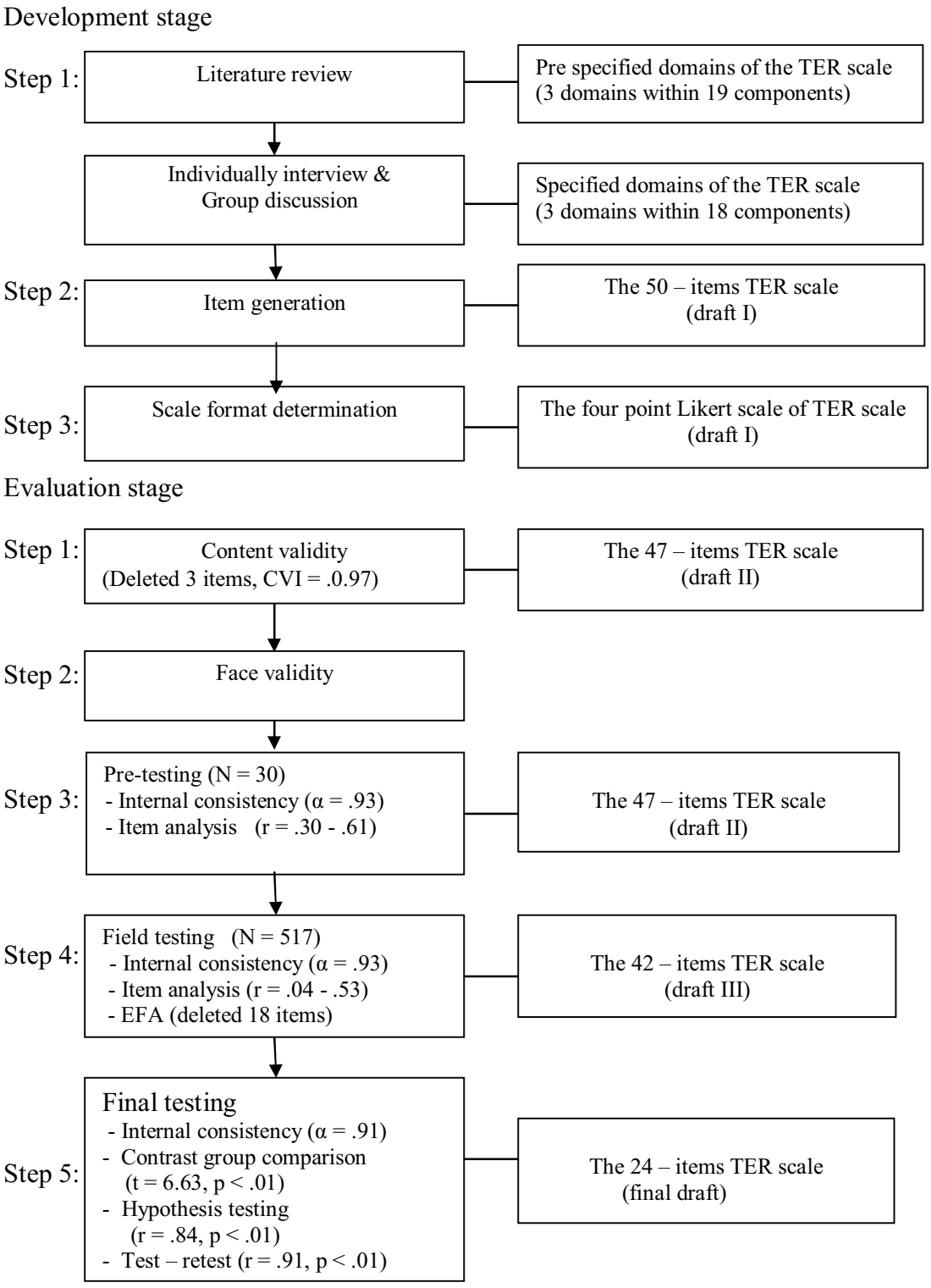

Figure 3 Results of TER scale developmental process

Table 1

Pre- specified and specified domains of Thai elderly resilience

Pre -specified domains		Specified domains	
1.	*I AM*	1.	*I AM*
1.1	Being generally healthy	1.1	Being generally healthy
1.2	Equanimity	1.2	Equanimity
1.3	Self-reliance	1.3	Self-reliance
1.4	Meaningfulness	1.4	Meaningfulness
1.5	Sense of humor	1.5	Sense of humor
1.6	Positive Thinking	1.6	Positive Thinking
1.7	Caring for others	1.7	Caring for others
1.8	Perseverance	1.8	Perseverance
1.9	Health-promoting behaviors	1.9	Health-promoting behaviors
1.10	Sense of Coherence *	1.10	Life satisfaction**
1.11	Hardiness*		
1.12	Optimism*		
2.	*I HAVE*	*2.*	*I HAVE*
2.1	Trusting relationships	2.1	Trusting relationships
2.2	Social support	2.2	Social support
2.3	Spiritual support	2.3	Spiritual support
2.4	Spiritual practice opportunity	2.4	Spiritual practice opportunity
3.	*I CAN*	3.	*I CAN*
3.1	Maintaining social connection	3.1	Maintaining social connection
3.2	Spiritual coping	3.2	Spiritual coping
3.3	Effective problem-solving skills	3.3	Effective problem-solving skills
		3.4	Help seeking**

* Removed component

** Added component

In summary, the attributes of resilience in Thai elderly participants, who had faced various crises, included 3 domains with 18 components.

Domain 1: I AM

"I AM" represents inner strength, confidence, self-esteem, and responsibility (Grotberg, 1999). For the Thai elderly participants, "I AM" was defined as a sense of having positive characteristics shown in both physical and mental health. Ten components in this domain thus reflected positive physical and mental health, described as follows:

Being generally healthy. It refers to the elderly perceptions of being physically and emotionally healthy. This component was the most common attribute of "I AM" found among the elderly participants, as shown in the following responses:

> *"Physical strength enables my perseverance through hardship."*
>
> *"I am so lucky to be in good health so I can go seeking help when needed."*
>
> *"If I have to ask others to aid me with my daily functions, it would mean that I am a disabled, a dependent, or a person with a low resilience."*

Equanimity. It refers to a balanced perspective of one's life and experience (Wagnild & Young, 1993; Wagnild, 2003). It is a state of mental or emotional stability or composure arising from a sense of temporal detachment from reality that usually attributes to a person displaying few (or no) signs of either excitement or distress in the face of stimuli (Calliford, 1996). Since most respondents were Thai Buddhists, their way of life relied on the Buddhist doctrine. The equanimity is basically one of the four "Subline Attitudes," the state of being loving-kindness, compassion, and sympathetic joy, all of which echoes with Buddhist

values. Another Buddhist principle influencing the development of equanimity in the Thai elderly is managing life by taking the middle path, i.e., recognizing things as they really are and trying to eliminate me and mine. Furthermore, certain Buddhist practice such as meditation helped the elderly to purify and calm their minds. The longer the Thai elders live, the more they practice and immerse in the religious doctrine, not only in their daily lives but especially so during their suffering, as expressed by the following statements:

> *"I engage more in religious practices – prayer, charitable acts, and meditation. These activities calm me."*
>
> *"I believe in the law of 'karma,' by which series of events in this life are explained as results of actions one has committed in the past life. It is different for each individual, when it comes to me, I feel at peace when I accept my karmas*."

Self-reliance. It refers to the belief in oneself and one's capabilities. Most respondents expressed their self-reliance as being confident in dealing with hardship and actually also learning and growing from the experience, as shown in the following testimonies:

> "*I believed that I can manage with future problem because more hardship experienced is more confident to hold life proble*m"
>
> *"Having had experiences dealing with hardship in life helps me gains confidence in facing with the future"*

This specified component was consistent with the original component of resilience among older women in a study of Wagnild &Young (1990, 1993) and

also reflected emotional strength by various terms defined in the literatures, i.e., leadership instincts (Lamond, et al, 2008), self-confidence: (Beardslee, 1989; Caplan, 1990), belief in one's own and self-efficacy (Corner & Davidson, 2003; Rutter, 1987; Ryff, Singer, Love & Essex, 1998).

Meaningfulness. It refers to the belief that life has a purpose. The Thai elderly expression the meaningfulness of life which is align with many existing literatures (Block, 1996; Caplan, 1990; Druss & Douglas, 1988; Foster, 1997; Polk, 1993; Rourke, 2004; Beardslee, 1989). Examples of the expressions are as follows:

> "*Adversities make me stronger and ponder upon future. Being alive is a blessing and a profit. I must live for my son."*

Sense of humor. It refers to a personal trait of appreciating and being able to express the humorous. Sense of humor is a coping strategy that helped the participants endures tough times. Generally, sense of helplessness, powerlessness, and lack of control are integral to suffering. Having a sense of humor, on the other hand, empowers and helps one gain control. Therefore, the participants felt that this strategy put them back in control of the situations. For example, instead of giving in to depression, a Thai elderly, caring for her two children diagnosed with schizophrenia, shared a humorous view of her life as follows:

> *"One good thing about having two psychotic sons in my house is that I don't have to worry on burglary because thieves are afraid of my sons."*

"Humor may not cure my suffering, but it lifts a cheerless attitude and makes life worth living. If we can learn to laugh at ourselves, we'll always have something to laugh about."

Positive thinking. It refers to a mental attitude that admits into the mind, thoughts, words, and images that are conductive to growth, expansion and success (Sasson, 2010). By definition, adversity is not a positive phenomenon, but it often has some positive aspects. Resilient people are able to draw on some form of positive emotion even in the midst of stress and hardship (Fredrickson 2004, Tugade & Fredrickson 2004). The participants who had successfully adapted to various major life adversities reflected their positive thinking in the following statements:

"Every day I tell myself, 'Don't give up, my life must go on."

Each morning as I am awake, I say to myself, "I survived yet another day. That is amazing!"

"Life is like a flying bird, sometime soaring high sometime falling down, nothing predictable. So we need to always be ready to face it as it comes."

"I believe that there are some positives come out of even the most unfortunate events in my life."

Perseverance. It refers to an individual's willingness to continue to reconstruct his/her life and maintain normal life despite setbacks. The following statements represent perseverance in the Thai elderly participants:

"When dealing with hardship, I am often patient and never feel discouraged."

"Experience in life teaches me to be patient."

"My husband had died many years ago. At that time, it was really hard for me to continue living without him. We were hit hard with poverty – there was not enough food or money for me and my children. I was fearful but I also knew I must persevere and be patient to survive."

Caring for others. It refers to an individual trait to offer his/her helping hands to others. Most Thai elderly respondents recognized that helping others was a way to guarantee help in return in the future as well as to earn love and a chance for social interaction. Therefore, caring for others contributed to Thai elderly resilience, as reflected in the following statements:

"Asking for help when needed is not difficult for me because I have often lent my helping hands to others."

"I always volunteer at the temple -- cleaning, washing, and cooking for monks – as I believe that collecting good merits in the present life may benefit the future life."

Health-promoting behaviors. It refers to the way one regularly engages in activities that supports healthy lifestyle. Physical activity was said to be a health-promoting behavior that most respondents employed to help cope with hardship. Engaging in an enjoyable activity on a daily basis relieved them from suffering even for a while and also allowed for an opportunity to socialize with others. The participants reported on their health-promoting behaviors used during their suffering time in the following statements:

> *"Daily exercise with friends makes me feel happier, more cheerful, and stronger. When the going gets rough, I never stop exercising because it is time like this when meeting and talking with friends help me copes."*
>
> *"I try to take good care of my physical and mental health, especially when I have a chronic illness. I strictly follow doctor's instructions, stay away from forbidden food and eat nutritious one. Everything I've done so far has helped me bounce back."*

Life Satisfaction. It refers to *a* sense of well–being and happiness in life. It also includes an individual's ability to gain the perception of well-being and happiness in life including and to accept change as a part of life. The participants reflected their life satisfaction as follows:

> *"Just being alive is so good enough for me. I am happy with my day-to-day life, living condition, and don't want anything more. My life is enough.*
>
> *"I follow the king's teaching to live a simple life, be content with life. It also inspires me to accept change as a part of life and move on."*

Domain 2: I HAVE

"I HAVE" refers to the external support and resources that promote resilience (Grotberg, 2003). For the Thai elderly, this domain translates to the sense of having strong social and spiritual support. As a specified domain, "I HAVE" consisted of the

same four components as its pre-specified interpretation – trusting relationships, social support, spiritual support, and opportunity for spiritual practice – which are described in details in this section.

Trusting relationships. It refers to a sense of having trusting relationships with others. Generally, building and maintaining trusting relationships are part of a lifelong journey which begins since childhood. The Thai elderly participants who had trusting relationships with even just a family member gained a sense of security, which enhanced their emotional resilience amidst crisis. Furthermore, trusting relationships served as a significant predictor of social support that contributed to the level of resilience among the participants. The respondents discussed significance of trusting relationships in the following statements:

> *"The best thing for me during hard time is to have someone to talk to."*
>
> *"Talking to a trusting friend can help me freely express my feelings as well as relieve some of the air from the stress balloon before it blows up."*
>
> "*When I feel troubled, my husband is a trusting person with whom I can express everything. I also can turn to my neighbors and the community leader.*"

Social support. It is identified as a significant component of resilience. For the participants, this component meant an expectation to receive support (e.g.,emotional, instrument, guidance, and financial support) from external sources when needed. The common sources of support were family members, peers, elderly

club members, community leader and government. The respondents' expressed the significance of social support in the following testimonies:

> *"Receiving care from physicians and health care professionals is beneficial; they regularly visited me and provided me with suggestion, counseling, and psychological support. Sometimes, they give me medicine to help me sleep and reduce my anxiety and fear.*
>
> *"Buddhist monks are a very important source of support for us Buddhists. They offer strategies for healing from suffering. One important strategy is 'Tumjai' – an acceptance that every occurrence is governed by the law of nature and law of 'karma'."*

Spiritual support. It was emerged as a crucial component of "I HAVE" that tremendously contributed to resilience among all Thai elderly participants. This kind of support involves the degree to which a person experiences the connection to the super natural power (i.e., God or other transcendent force) that is actively supporting, protecting, guiding, teaching, helping, and healing. In general, most Thai elderly rely on spiritual support from their religious belief and practice, such as praying, reading religious scripture, discussing with friends and family about religious teaching, and worship in the holy places. The participants shared their views on spiritual support in the following statements:

"I believe that making merits, helping others, and giving offerings to Buddhist monks make me happy and in turn help me manage troubles."

I expect to receive help or blessing from the sacred power when I am suffering."

Opportunity for spiritual practice. It refers to time that allow the elderly to engage in religious or spiritual practice. Most respondents reported to regularly dedicate their time in a day for various spiritual practices. All of them stated that they spent even more time to do so while facing difficult situations. Their practice allowed them to regain concentration. Their common spiritual practices were prayer, meditation, making merits, and sacred travels. Testimonies on this topic are presented as follows.

"Having more opportunity to engage in spiritual practice means having more help from supernatural power."

"When I am in so much distress, I try to spend more time to say a prayer and go to numerous temples for blessing."

Domain 3: "I CAN"

"I CAN" refers to problem-solving and social skills that the Thai elderly can learn through interacting with others or upbringing. The specified domain of "I CAN" consisted of three existing components from the pre-specified domain, i.e., maintaining social connection, effective problem-solving skill and spiritual coping. In addition, a newly identified component, ability to seek help, was also added.

Maintaining social connection. It refers to the elderly ability to make connection or build good relationships with others including participating in a broad

range of social relationships. The example statements reflecting these abilities are as follows:

> *"I regularly communicate with others in any way I can because I believe that belonging to a network or a group can benefit me in future."*
>
> *"Family and friends are very importance in my life, therefore, maintaining good relationships means maintaining high support during hard times."*

Effective problem-solving. It is a coping strategy employed by most participants to resolve occurring issues and achieve goals. Some of them learnt from past experiences and/or their role models. They shared the coping strategies that had helped them get through rough time in the following statements.

> *"I lost my son in an accident. I know now everything in the world can occur at any time. So we need to prepare ourselves. I have learned from my loss to abide by the concepts of 'Tumjai' and 'whatever will be it will be'"*
>
> *"I read religious text, listen to the radio, watch television, speak on the telephone with my son and daughter almost every day"*

Spiritual coping. All respondents overcame their suffering by using spiritual coping that guided by their religion or beliefs. This coping strategy was used to find meaning, purpose, and hope in their lives. Moreover, they believed that God or supernatural power would help them to cope with their ailments. In addition, they

resorted to religious teaching for comfort in time of suffering. Example statements reflecting spiritual coping are presented as follows.

> *"I base my life on Buddhism teaching; I believe that my survival caused by and depends on my own "boon" from past life. Doing more goodness now may help me in both current and next life"*
>
> *"I regularly go to the temple to give offerings to Buddhist monks. Sometimes, I meditate with friends at the elderly club. Moreover, I often listen to "dhama" tapes before I go to sleep. All of these calm me down and fall asleep easy."*

Help seeking. It is a component in "I CAN" that occurred when the elderly experienced helplessness. Seeking help from others was reported as the next best choice to manage problems after having exhausted all other options on their own. Below statements show the respondents' views on the topic.

> *"I think that receiving support from people is more important than other things. It makes me feel that we do not live alone and any support can help us live long."*
>
> *"I like to help others because it makes me feel happy and I receive more "boon," which helps relieve anxiety or stress and provides emotional comfort."*

The three domains of TER Scale, “I AM,” “I HAVE,” and “I CAN,” along with their definitions, are presented in Table 2. Their components are identified in Figure 4.

Table 2

Domains and definitions of Thai elderly resilience

Domains	Definitions
I AM	The elderly perceptions of having positive characteristics – such as having physically strength & emotional stability, which includes feelings, attitudes, and beliefs – to help facing hardship,
I HAVE	The elderly perceptions of having sufficient resources or support from family, peers, networks, community, government, and spiritual practice in order to cope with suffering.
I CAN	The elderly perceptions of having the ability to initiate interpersonal relationships, resort to spiritual coping, develop effective problem-solving skill, and seek help when facing difficult situation

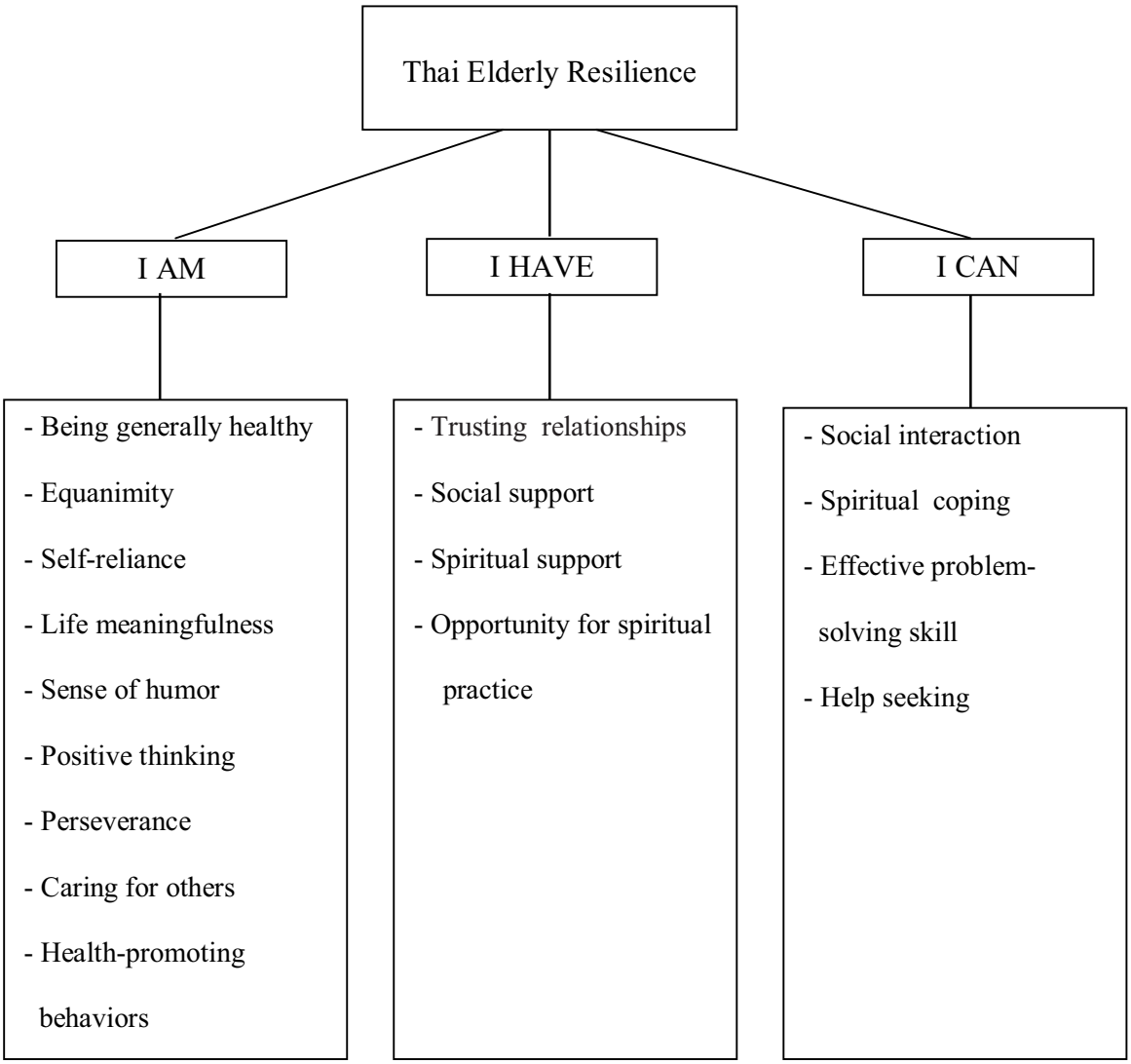

Figure 4 Domains and components of Thai Elderly Resilience Scale

Step 2: Item generation

During the analysis of the qualitative data, three specified domains were identified and an item pool was drafted through a matrix of 18 components classified within those three domains. The TER scale is a self- reported and self-administered questionnaire, designed to measure the level of resilience and all of its functional domains. The items, both of positive and negative statements, were precisely and contextually provided, as follows: "*I do value my life", "I usually pray for a happy*

life", "I often share my suffer feelings with others". The initial item pool was examined by a measurement specialist. Finally, the first draft of TER scale containing a total of 50 items (negative statement 7 items and positive statement 43 items) was developed ("I AM" domain 20 items, "I HAVE" 15 items, "I CAN" 15 items) (Appendix D).

Step 3: Scale format determination

Due to the participants' physical and psychological limitations including education level, a Likert's four-point scale was adopted as a format of TER scale. This format was deemed most appropriate to measure resilience in Thai elderly since it has fewer choices and is thus more convenient, short, concise, and easier to use. Furthermore, providing four choices actually prevents middle-point choosing, a typical habit of Thai elderly. Each item statement has a rating scale, ranging from 1 to 4, associated with four possible answers. The higher score indicated higher degree of perceived ability to bounce back in the face of hardship. All respondents were asked to provide their subjective opinion, using the scale, in response to each question. The scale is presented as follows:

1 = disagree	2 = partially agree
3 = quite agree	4 = completely agree

Stage of psychometric evaluation

This stage aimed to perform psychometric properties testing including reliability and validity of the TER scale. Reliability was examined by two procedures, i.e., internal consistency evaluation and test - retest method. Two types of validity evaluation were conducted. Content validity was evaluated by Content Validity Index:

CVI calculating. Construct validity was evaluated by using four methods, i.e., item analysis, hypothesis testing, factor analysis, and known-group technique. The results of this stage are presented by the following 5 steps: 1) content validity evaluation, 2 face validity evaluation, 3) pre testing (item analysis & internal consistency assessment), 4) field testing (item analysis, internal consistency, exploratory & factor analysis), and 5) final testing (hypothesis testing, known group comparison, stability evaluation, and internal consistency assessment).

Step 1: Content validity

The first draft 50- item TER scale was submitted to a panel of seven experts who reviewed, commented, identified and deleted theoretically incoherent items. The suggestions from all six experts were to rephrase ten items. Most items in the English version were revised. Furthermore, negative statements of seven items were suggested for a revision and three redundant items were suggested to be deleted. Moreover, two experts recommended re-categorizing five items to better fit within the appropriate domains.

The revised version of the scale based on the experts' recommendation was re-submitted to a panel of two experts. Multiple revisions were made in this stage to improve the items' clarity. The second draft of TER scale thus had a total of 47 items, whose content validity index (CVI), rated by 5 experts, was .97 (One expert's only recommendation was a complete revision). Therefore, the second draft of 47-item TER scale was to be further examined for its face validity.

Step 2: Face validity evaluation

The second draft 47- item TER scale was reviewed by five Thai elderly for clarity & interpretability. The majority of the scale items were confirmed. Minor

rewording was recommended. The elderly participants spent about 15-30 minutes on the review, depending on their education levels. Finally, the second draft 47- item TER scale was preserved and further evaluated for its internal consistency and item analysis in pre-testing step.

Step 3: Pre - testing

Pre testing of item analysis and internal consistency were conducted by using thirty Thai elderly living in a community. The results of sample demographic data, item analysis, and internal consistency are presented as follows:

Sample Demographics. Thirty Thai elderly respondents participated in this procedure. Majority of subjects were female (73.3 %) whose age ranged from 60 to 91 years old (M= 69.09, SD = 8.06). Most were married (63.3 %) and had primary level of education (63.3%). Forty percent of the respondents were living with spouse and children (40.0%). Half of them were farmers (50%). The details are shown in Table 3.

Table 3

Frequency and percentage of the pre- testing sample classified by demographic (n=30)

Demographic	Frequency	Percentage
Gender		
Female	22	73.30
Male	8	26.70
Marital status		
Married	19	63.30
Widow	8	26.70
Separated/Divorced	2	6.70
Single	1	3.30
Formal education		
Never learn	3	10.00
Less than primary school	3	10.00
Primary school	19	63.30
High school	2	6.70
Bachelor Degree	3	10.00
Occupation		
Farmer	15	50.00
Unemployment	8	26.70
Retiree	3	10.00
Seller	3	10.00
Employee	1	3.30

Item analysis. The alpha coefficient was used to examine correlations between item to item, items to subscale, and item to total. The results of item analysis are shown as Table 4. The correlations between item and total scores illustrated that there were seven items (item # 6, 7, 8, 22, 26, 29, 44), as in the appendix F, correlated with the total score lower than 0.3 (.04 - .27). In addition, Table 5 shows the results of the correlation between subscale to subscale and subscale to entire scale.

Table 4

Correlation coefficients of item analysis (item to item, item to subscale, and item to entire scale) of the second draft 47-item TER scale (n=30)

Scales	Item – item	Item – subscale	Item – entire scale
I AM	0.00 - 0.68	0.11 - 0.69	0.03 - 0.73
I HAVE	0.01 - 0.66	0.18 - 0.76	0.14 - 0.77
I CAN	0.01 - 0.60	0.39 - 0.74	0.13 - 0.76
Entire scales	0.00 - 0.73		

Table 5

Correlation coefficients of subscale analysis (subscale to subscale and subscale to entire scale) of the second draft 47-item TER scale classified by three subscales and entire scale (n=30)

Scale	Entire score	I AM	I HAVE	I CAN
I AM	0.93*	1.00	0.75*	0.84*
I HAVE	0.89*	0.75*	1.00	0.74*
I CAN	0.94*	0.84*	0.74*	1.00
Total	1.00	0.93*	0.89*	0.94*

* $p < 0.01$

Internal consistency assessment. The second draft 47- item TER scale was tested on its internal consistency using Cronbach's alpha coefficients. The correlation of TER item scores within each subscale and entire scale were calculated. As shown in Table 6, the alpha coefficient of the entire scale of the TER scale second

draft was at .94. The alpha coefficients of the subscales were from 0.83 to 0.86 (I AM = 0.86, I HAVE = 0.84, and I CAN = 0.83).

Table 6

Alpha coefficients of the second draft 47- item TER scale (n = 30)

Scale	Number of items	Mean	SD	Alpha
I AM	18	60.41	6.90	0.86
I HAVE	13	35.47	5.28	0.84
I CAN	16	40.83	5.84	0.83
Total	47	136.73	16.19	0.94

The results of pre testing supported the preservation of 47 items on the TER scale since the total item correlations were acceptable. Therefore, the psychometric properties of the scale were to be further examined in the field testing.

Step 4: Field testing

Field testing of internal consistency, item analysis and exploratory factor analysis were conducted by using 517 Thai elderly living in a community. The results of this step including sample demographic data are presented as follows:

Sample demographics. The subjects were Thai elderly aged 60 or older. Most of them were female (71.4%) with age ranged from 60 to 93 year (M = 70.36, SD = 7.27). Almost all was Buddhist (95%). The majority was married (54.2 %) while the rest was widowers (33.2 %). Primary level of educational was the most common. Most respondents were living with spouse and children (58.4%). The majority was unemployed (38.3%) and the remainder was farmers (35.4%). Their

individual income ranged from 500 to 80,000 baths (M = 7,425.44, SD = 10, 531.82) (Table 7)

Table 7

Frequency, and percentage of the sample classified by demographics (n=517)

Demographics	Frequency	Percentage
Gender		
Female	369	71.37
Male	148	28.63
Age ranged from 60 – 93 years (Mean = 70.36, SD = 7.27)		
Marital status		
Married	280	54.20
Widow	174	33.70
Separated/Divorced	30	5.80
Single	33	6.40
Religion		
Buddhism	491	94.97
Islamic	23	4.45
Christian	3	0.58
Formal education		
None	69	13.35
Less than primary school	69	13.35
Primary school	306	59.19
High school	44	8.51
Graduate school	29	5.60
Living arrangement		
With spouse & children	302	58.40
With spouse	79	15.30
With children or relative	57	11.00
Alone	49	9.50
Shelter home	30	5.80

Table 7 *(continue)*

Demographics	Frequency	Percentage
Perceived physical health condition		
Good	182	35.30
Fair	253	49.20
Poor (having more than 1 physical illness)	80	15.50
Mental health condition		
Good	335	65.00
Fair	156	30.30
Poor (having multiple emotional problems)	24	4.70
Major adverse life experience		
Have	480	92.80
Not have	37	7.20
Occupation		
Unemployed	198	38.30
Agriculture	183	35.40
Seller	55	10.60
Employee	46	8.90
Retirement	35	6.80
Income ranged from 500 – 80,000 baths (Mean = 7,425.44, SD = 10, 531.82)		

4.2 Internal consistency The second draft 47-item TER scale was examined on its internal consistency using Cronbach's alpha coefficients. The alpha of each subscale and total scale was evaluated. As shown in Table 8, the alpha coefficient of the total second draft TER scale was .94. The alpha coefficients of the TER subscales were 0.83 – 0.86 (I AM = 0.86, I HAVE = 0.84, I CAN = 0.83).

Table 8

Alpha coefficients of the second draft 47-item TER scale (n = 517)

Scales	Number of items	Mean	SD	Alpha
I AM	18	60.41	6.90	0.86
I HAVE	13	41.33	6.08	0.84
I CAN	16	49.45	6.80	0.83
Total	47	136.73	16.19	0.93

Item analysis. The correlations between item to item, item to subscales, item to total, subscale to subscale, and subscale to entire scale of field testing are presented in Table 9. Item to item correlations ranged from 0.02 to 0.47. In addition, the correlations of item to subscales were calculated and it was found that correlations of item to each subscale ranged from .26 to .61. There were five items correlated with the score of entire TER scale lower than 0.3 (item #29, 31, 40, 44, and 47 as in appendix G).

Table 9

Correlation coefficients of the second draft 47-item TER scale (n=517)

Scales	Item – item	Item – subscale	Item – total
I AM	0.07 - 0.51	0.38 - 0.61	0.34 - 0.58
I HAVE	0.11 - 0.51	0.35 - 0.59	0.29 - 0.61
I CAN	0.04 - 0.45	0.26 - 0.56	0.20 - 0.58
Entire scale	0.02 - 0.47		

The item analysis revealed various sizes of correlation between item to item ranging from 0.04 – 0.51, and most of them exceeded .30. However, there were five items that had item- total correlation lower than 0.3. As mention by Ferkitch (1990) and Nunanlly and Burnstain (1994), with respect to the low number of significant pairs and appropriated correlation coefficients between .30 and .70. Also Munro (2005) accepted item to total correlations should range from 0.3 to 0.7. The researcher also recognized the lack of clarity among those items, e.g., "*I can sleep well even in time of suffering,*" which was recommend to be adjusted to "*I don't know how to rate this item because I cannot sleep well neither during happy nor hard time,*" or "I *can sleep well both during happy and hard time.*" Therefore, those five items were dropped from the analysis at this point for their failure to manifest the same underlying variables as others. The second draft 42-item TER scores of 517 subjects were further calculated for exploratory factor analysis.

Exploratory factor analysis. The 42- items TER scale third draft was investigated on its internal structure. The steps of analysis were: 1) descriptive factor analysis, 2) factor extraction using principal components method, and 3) varimax rotation. The results of exploratory analysis are presented as follows:

1. Descriptive factor analysis. Two statistics were used in this step, Bartlett's test of sphericity and Kaiser – Meyer –Olkin (KMO) which aimed to confirm the appropriateness of applying factor analysis. The Bartlett's test of sphericity revealed the high inter –item correlation significantly (χ^2 = 7246.87, p < .00).The KMO reported the estimated sampling adequacy at .93 which considering the excellent indication factorability.

2. Factor extraction. The factor extraction yielded communalities of 42 variables ranged from .23 – 56. In this step, nine components with initial eigenvalues greater than 1 ranged from 1.04 to 11.7, and total variance explained at 54.51 were reported. Furthermore, Scree plot figure that indicated a number of 3 -5 factors should be examined (Figure 5). The rotation with orthogonal varimax method was further calculated.

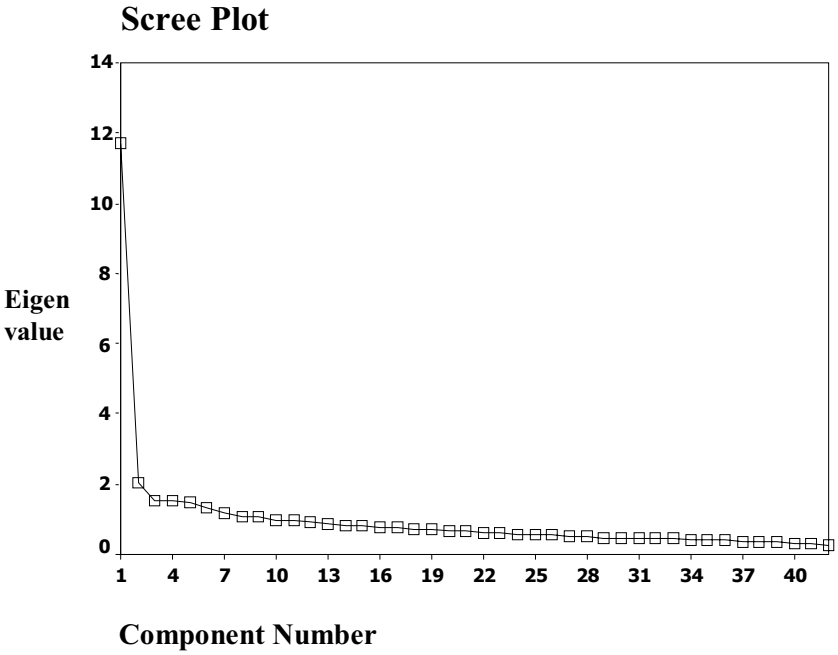

Figure 5 The Cattle's Scree plot of the second draft 42-item TER scale

3. Varimax rotation. After rotation, the number of each factor was: the first 3 factors consisted of 6-8 items, whereas the forth to the seventh consisted of 4 items, the eighth consisted of 3 items and the ninth consisted of 2 items, with total variances explained of 54.51% (Table 10). The result was considered low- level in the hierarchy of factors. As noted by Comrey & Lee (1992), the low- level factor seemed to be less meaningfulness to the overall analysis.

Table 10

Total loading, percent of variance, and cumulative percentage of the second draft 42-item TER Scale classified by factor loading (Eigen values equal to or greater than 1)

Factor	Extraction sums of squared loadings			Rotation Extraction sums of squared loadings		
	Total	Percent of Variances	Cumulative (%)	Total	Percent of Variances	Cumulative (%)
1	11.70	27.87	27.87	4.06	9.67	9.67
2	2.03	4.83	32.70	3.34	7.99	17.63
3	1.54	3.67	36.37	2.90	6.90	24.54
4	1.51	3.60	39.97	2.39	5.69	30.22
5	1.48	3.53	43.51	2.28	5.42	35.64
6	1.33	3.17	46.69	2.26	5.38	41.02
7	1.18	2.82	49.51	2.00	4.74	45.76
8	1.05	2.50	52.01	1.99	4.42	50.49
9	1.04	2.49	54.51	1.69	4.02	54.51

After factor extraction, it was difficult to interpret and name the factors on the basis of their factor loading. Typically, the criterion of principal components analysis, which is the first factor, accounts for the maximum part of the variance; this will often ensure that most variables have high loading on the most important factors, and small loading on other factors (Field, 2000). Thus, the interpretation of the factors can be difficult. Factor rotation, however, can be used to solve this difficulty because it alters the pattern of the factor loading and so can improve interpretation. The orthogonal rotation with varimax method was used in this study to carry out the rotation. In this step, the five factors followed by Scree plot criterion was carried out and factors loading exceeding 0.3 were retained. Parsimony and interpretable solution

were considered as criteria for factor solution. The structures of the five factors were not optimal interpretation as they seemed less theoretically organized. Furthermore the total variance accounted for was only 43.51 %. Therefore, the 42 variables were reconsidered by examining the communality of items that lower than 0.40. Eighteen items that had communality ranged from 0.23 - 0.40 were eliminated because of less value to explain the total variables. Furthermore, eliminating these 18 items did not substantially decrease the alpha coefficient. Finally, the 24 items TER scale was remained.

The 24-item TER scale was then re-analyzed. The five components with Eigen values greater than 1 were retrieved from the analysis. The factor loading cut of point was set at .45 in order to reduce side loadings. The new five factors were more optimal, parsimonious, theoretically organized, and presented a simple structure. Each factor could be interpreted as a distinct psychological meaning. The new total variance accounted for was 54.56%, with Eigen value range from 1.20 – 7.60, and factor loadings from 0.50 - 0.71. The item statement and communality of each item in the TER scale, which was the proportion of variance in an item explained by the five factors, was reported in Table 11. The 24 items- TER scale, factors, and factor loading on each factor from varimax rotation are shown in Table 12. Overall factor loading on each component was shown in Appendix H.

Table 11

Item statement and communalities of the third draft 24- item TER scale classified by item number (n=517)

Item no	Item statements	Communality
2	Enjoy talking with others	0.53
4	Being patient when dealing with hardship	0.56
5	Being confident to handle life problems	0.54
8	Having a valuable life	0.52
11	Having a sense of humor	0.49
13	Being proud of self	0.54
17	Being satisfied with living conditions	0.50
18	Enjoy participating in group activities with others	0.56
19	Having a chance to talk with others on a daily basis	0.53
20	Having a chance to help others	0.51
21	Having a chance to join group activities with others	0.57
22	Having a chance to pray for good life	0.55
23	Having a chance to conduct spiritual practice regularly	0.58
24	Having at least one trusted people to talk to	0.54
25	Having at least one trusted family member	0.61
26	Having at least one person who can provide financial support	0.54
27	Having peers who can give mental support when needed	0.52
28	Always rely on spiritual beliefs	0.57
34	Being able to release tension by self	0.54
35	Good emotional control during hardship	0.49
36	Positive self talk when facing with hardship	0.60
37	Share suffered feelings with trusted people	0.57
38	Learn from previous adverse life events	0.53
43	Using religious doctrine to solve the problems	0.61

Table 12

Factors and factor loadings of 24- item TER scale (N = 517)

Item no.	Factors and item statements	Eigen value	Variance explained (%)	Factor loading
Factor 1: Be able to join with people		3.21	13.37	
2	Enjoy talking with others			0.69
21	Having a chance to join group activities with others			0.68
11	Having a sense of humor			0.66
19	Having a chance to talk with others on a daily basis			0.59
20	Having a chance to help others			0.57
18	Enjoy participating in group activities with others			0.55
Factor 2: Be confident to live		2.56	10.68	
8	Being valuable life			0.66
4	Being patient when dealing with hardship			0.63
5	Being confident to handle life problems			0.60
17	Being satisfied with living conditions			0.54
13	Being proud of self			0.53
Factor 3: Having social support		2.50	10.43	
25	Having at least one trusted family member			0.71
26	Having people who provide financial support			0.70
24	Having one trusted people who provides emotional support			0.62
27	Having networks or groups who provide emotional support			0.50

Table 12 (*continue*)

Item no.	Factors and item statements	Eigen value	Variance explained (%)	Factor loading
Factor 4: Living with spiritual security		2.44	10.17	
22	Usually pray for happy life			0.70
23	Engages in religious practice regularly			0.67
28	Always rely on spiritual beliefs			0.66
43	Usually using religious doctrine to solve problems			0.63
Factor 5: Be able to de-stress and manages problems		2.38	9.19	
36	Usually positive self talk when suffering			0.72
38	Learning from previous adverse life events			0.60
34	Usually relieve stress from day-to-day problems by self			0.60
35	Good emotional control in difficult			0.52
37	Often share suffered feelings with trusted people			0.50
	Total variance explained (%)		54.56	

Table 12 presents the results of rotated varimax solution for five factors principle component solution. Most items loaded on a single factor. The data indicates that the varimax rotated factor solution meet the simple solution criteria set forth by Thurstone (1947), which believes that there is at least one item for each principle component for which the loadings are closed to zero. Ultimately, the final version of TER scale consisted of 5 factors, with total of 24 items, and was able to explain a total variance of 54.56%. The resulting 5 factors included: 1) be able to join with people 2)

be confident to live 3) having social support 4) living with spiritual security and 5) be able to de-stress and manage problems. The details of each factor are provided as the follows.

Factor1 consisted of 6 items with factor loadings ranging from .55 to.69 and account for 13.36 % of variance with an eigenvalue of 3.20. An examination of each item, as shown in Table 13, reveals that all items reflect attributes of engage activities with others, i.e., enjoy talking with others, enjoy joining in group activities and having a chance to meet with others. Therefore, this factor was labeled as "be able to join with people"

Table 13

Factor loadings and communalities of each item in Factor I: Be able to join with people (n = 517)

Item no.	Item statements	Factor loadings	Communalities (h^2)
2	Enjoy talking with others	0.69	0.53
21	Having a chance to join group activities with others	0.68	0.57
11	Having a sense of humor	0.66	0.48
19	Having a chance to talk with others on a daily basis	0.59	0.53
20	Having a chance to help others	0.57	0.51
18	Enjoy joining group activities with others	0.55	0.56
	Eigen value	3.20	
	% of variance	13.36	

Factor 2 consisted of 5 items with factor loadings ranging from .52 to.65, and account for 10.68 % of variance with an Eigen values of 2.56. An examination of each item, as shown in Table 14, reveals that all items reflect the attributes of be confident to live, i.e., being a life valuable, patience to endure hardship, confidence to handle life problems, etc. Thus, this factor was labeled as "be confident to live"

Table 14

Factor loadings and communalities of each item in factor II: Be confident to live (n = 517)

Item no	Item statements	Factor loadings	Communalities (h^2)
8	Being valuable life	0.65	0.52
4	Being patience when dealing with hardship	0.63	0.56
5	Being confidence to handle life problems	0.60	0.54
17	Being satisfaction with life conditions	0.54	0.50
13	Being self pride	0.53	0.54
	Eigen value	2.56	
	% of variance	10.68	

Factor 3 consisted of 4 items with factor loadings ranging from 0.50 to 0.71 and account for 10.42 % of variance with an eigenvalue of 2.50. An examination of each item, as shown in Table 15, reveals that all items reflect the perception of various kinds of social support, i.e., having at least one trusted family member, having at least one person who provides financial support, having one trusted person who

unconditionally provides emotional support, etc. For this reason, this factor was labeled as "having social support."

Table 15

Factor loadings and communalities of each item in Factor III: Having social support (n = 517)

Item no	Item statements	Factor loadings	Communalities (h^2)
25	Having at least one trusted family member	0.71	0.61
26	Having people who can provide financial support	0.70	0.54
24	Having one trusted person who provides unconditional emotional support	0.62	0.54
27	Having networks or groups which can provide support as needed	0.50	0.52
	Eigen value	2.50	
	% of variance	10.42	

Factor 4 consisted of 4 items with factor loading ranging from 0.62 to0 .69 and account for 10.17 % of variance with an Eigen value of 2.44. An examination of each item, as shown in Table 16, reveals that all items reflect the attributes of spiritual belief, i.e., engage in religious practice regularly, always rely on spiritual beliefs, etc. This factor was thus labeled as "living with spiritual security."

Table 16

Factor loadings and communalities of each item in Factor IV: Living with spiritual security (n = 517)

Item no.	Item statements	Factor loadings	Communalities (h^2)
22	Having a chance to pray for good life	0.70	0.55
23	Engage in religious practice regularly	0.67	0.58
28	Always rely on spiritual beliefs	0.66	0.57
43	Use religious doctrine in solving problems	0.63	0.61
	Eigen value	2.44	
	% of variance	10.17	

Factor 5 consisted of 5 items with factor loadings ranging from 0.52 to 0.71 and account for 9.19 % of variance with an eigenvalue of 2.38. An examination of each item, as shown in Table 17, reveals that all items reflect the attributes of relaxation and stress management, i.e., positive self talking, learning from previous experienced, trying to relieve stress by self, etc. Thus, this factor was labeled as “be able to de-stress and manage problems.”

Table 17

Factor loadings and communalities of each item in Factor V: Be able to de-stress and manage problems (n = 517)

Item no	Item statements	Factor loadings	Communalities (h^2)
36	Positive self talk during suffering	0.72	0.60
38	Learn from previous adverse life experience	0.60	0.53
34	Usually relieve stress by self	0.60	0.54
35	Being calm when dealing with a stressful event	0.53	0.49
37	Share suffered feelings with a trusted person	0.50	0.57
	Eigen value	2.38	
	% of variance	9.19	

Step 5: Final testing

The 24 – items TER scale final draft was used as an instrument in final testing which utilized 4 approaches: hypothesis testing, known group technique, stability, and internal consistency. The results of each approach are presented as follows:

Hypothesis testing. The hypothesis of this study, "the *Thai elderly who are resilient would be mentally healthy,"* was tested. As shown in Table 18, there is a strongly positive correlation between the total scores of the Thai Elderly Resilience Scale and the Thai Mental Health Indicator (TMHI) ($r = 0.84$, $p < .01$). The result thus supported the construct validity of the newly developed TER scale.

Table 18

Mean, standard deviation, and correlation coefficient identified by the third draft TER score and TMHI score (n = 30)

Total scores	$\overline{X}$	SD	r
TER scale	77.26	9.44	0.84*
TMHI	63.50	7.66	

** p <0 .01*

4.2 Known group comparison. Thirty subjects, drawn from each of the two groups of the elderly living with spouse and /or children and the elderly living in shelter home, were used for construct validity evaluation of the TER scale using known group technique. The comparison of mean difference between resilience scores of the two groups, shown in Table 19, indicates that the first group represented higher score of resilience than the latter. The t – test analysis indicated that mean scores of the TER scale of both groups had a statistically significant difference at the 0.01 level. The results indicated that the newly developed TER scale could differentiate elderly resilience between those with the higher sense of family support and those with lower sense of family support. The findings supported the construct validity of the TER scale.

Table19

Mean, SD, and t – value of the TER total scores of elderly in different living arrangement (n = 60)

Group of the elderly	n	M	SD	T
Elderly living with spouse and/or children	30	77.26	9.44	6.33*
Elderly living in shelter home	30	63.50	7.66	

$* p < 0.01$

Stability evaluation. Stability evaluation of the TER scale using 2-week interval between testing periods was assessed by asking 30 Thai older adults living in a community to complete the TER scale twice. A Pearson Product moment correlation coefficient was calculated using the total TER scores at time 1 with the total scores of time 2. As shown in Table 20, the stability of the total TER scores at time 1 was 79.16 (SD = 8.71) and scores at time 2 was 78.46 (SD = 8.36) both of which demonstrated a high level correlation at 0.91. Furthermore, the mean score of all subscales at time 1 ranged from 13.03 to 18.90 and scores at time 2 ranged from 12.60 to 18.83 including correlations between time 1 and time 2 ranged from 0.72 - 0.93. Thus, the results of the test - retest reliability provided evidences that the score variation of 24-item TER was stable over a 2-week period during which time they were examined by the Thai elderly.

Table 20

Stability estimates of the total scores for TER time 1 and TER time 2 (n =30)

Scales	TER time 1	TER time 2	r
	Mean (SD)	Mean (SD)	
Be able to join with people	18.90 (3.04)	18.83 (2.80)	0.84*
Be confident to live	17.66 (2.80)	17.63 (1.60)	0.72*
Having social support	13.16 (2.06)	12.60 (2.22)	0.80*
Living with spiritual security	13.03 (2.12)	12.90 (1.93)	0.92*
Be able to de-stress and manage problems	16.40 (2.55)	16.50 (2.33)	0.93*
Total	79.16 (8.71)	78.46 (8.36)	0.91*

* $p < 0.01$

TER time 1 = TER score at the first time

TER time 2 = TER score at the second time

Internal consistency assessment. This type of reliability was re-evaluated by using 517 elderly subjects. The final 24- item TER scale was used to calculate for its alpha coefficients on subscales and total scores. The finding revealed the overall internal reliability was still good ($\alpha = 0.91$) and alpha of each factor ranged from 0.70 - 0.80 (Table 21). In addition, the correlations among the five factors and the factors with the entire scale were all significant ($r = 0.42 – 0.58$ and $r = 0.73–0.83$, respectively, $p < 0.01$) (Table 22).The results provided evidences supporting for the reliability of the newly developed TER scale.

Table 21

Cronbach's alpha coefficients and number of items for total and five subscales of the TER-Scale final version (n =517)

Scales	Number of items	Alphas
Be able to join with people	6	0.80
Be confident to live	5	0.74
Having social support	4	0.70
Living with spiritual security	4	0.74
Be able to de-stress and manage problems	5	0.72
Total	24	0.91

Table 22

Relationships among the factors and between the factors and the total scale (n = 517)

Factors	F 1	F 2	F 3	F 4	F 5
Be able to join with people (F 1)	-				
Be confident to live (F 2)	0.58*	-			
Having social support (F 3)	0.50*	0.46*	-		
Living with spiritual security (F4)	0.50*	0.42*	0.49*	-	
Be able to de-stress and manage problems (F5)	0.53*	0.56*	0.52*	0.49*	-
Total	0.83*	0.78*	0.74*	0.73*	0.79*

*$p < 0.01$

Summary of the results

The findings of these data analyses indicated the TER scale was conceptually constructed. The scale demonstrated sound psychometric properties with good internal consistency and test - retest reliability. As a measuring tool, it was able to effectively differentiate resilient elderly. Analysis of the factor composition of the TER scale revealed five underlying dimensions, which support the theoretical understanding of resilience as a multidimensional construct. Discussions of the results are presented as follows.

Discussion

This study aimed to develop and evaluate the psychometric properties of the Thai Elderly Resilience scale (TER scale). The subjects were 531 Thai elderly aged 60 and older. The 14 elderly, representing all four regions of Thailand, were interviewed and participated in group discussion to specify the TER domains. Meanwhile, the other 517 Thai elderly, all living in 4 provinces of southern Thailand, were invited to be part of the stage of psychometric property evaluation. The subjects were purposely selected from various settings, i.e., general community residences, elderly clubs, primary care units, shelter homes, and Tsunami affected areas. The discussion involved responding to the research questions which are presented as follows:

Research question 1: What are the components of the TER Scale?

The study results revealed five specific factors of the TER scale which appear to be conceptually consistent with those constructs in the existing tools (Connor & Davidson, 2003; Friborg et al., 2006; Ryan, 2009; Sinclair & Wallston, 2004; Smith,

Dalen, Wiggins, Tooley, Christopher, & Bernard, 2009; Ryan, 2009: Takviriyanun, 2008; Thai Mental Health department, 2008; Wagnild & Young, 1993). The following discussion provides logical, conceptual and evident supports for the existing constructs of the TER scale.

The discovery of five factors in this study are: 1) be able to join with people, 2) be confident to live, 3) having social support, 4) living with spiritual security, and 5) be able to de-stress and manage problems. These factors reflected internal and external aspects of resilience. In addition, they are evidence that the study is congruent with previous studies' findings in which resilience is a multidimensional construct, incorporating both internal and external factors and encompassing emotional, spiritual, social, cognitive, and physical domains (Arthur et al., 2002; Garmerzy, 1985; Garmezy, 1993; Polk, 1997; Garmerzy & Rutter, 1985; Kaplan, 1999; Kumpfer, 1999; Luthar et al., 2000; Maluccio, 2002; Richardson, 2002; Staudinger, Marsiske & Baltes, 1993; Seligman & Csikszentmihalyi, 2000; Werner & Smith, 1992).

However, when the factor structure of the TER scale were assessed, the dimensionality of the instrument was similar to the three original domains, "I AM," "I HAVE," and "I CAN," as described by Grotberg (2003) for some degrees. "I AM" or internal factor was revealed by the domain of "be confident to live" indicating the inner strength of living when experiencing hardship. "I HAVE" or external factor expressed as "having social support" and "living with spiritual security." "I CAN" was existed as being able to join with people and being able to de-stress and manage problems." The differences in present study may be explained that I AM from Grotberg's perspective was described as one self perception of respectful of own self

and others details; whereas, I AM in this study was viewed as having confidence to live despite hardship. In addition, "I HAVE" also confirmed the differences of components in term of spiritual support that does not occurred in the previous study.

According to the original factors that make up resilience, they were developed from a total of 589 children participants as well as their families and care givers from 30 countries, while the result of this study was derived from a total of 531 older adults in Thai context. It is possible to point out that Thai elderly developed their resiliency through believes and spiritual activities at any point in their life cycle. Lastly, I CAN was shown the differences in term of previous studies that valued the skills of finding ways or others to help when suffering; whereas, Thai elderly valued the skills of being with people and self help instead. Moreover, the differences may be arisen from multiple elements (e.g. sample demographics, situations, and cultural context) which were asserted and influenced individual's resilience (Ryff, Singer, Love & Essex, 1998; Staudinger, Marsiske & Baltes, 1993). However, the cultural differences were seemed to be the most important factor.

Furthermore, the results showed that "being able to join with people" was the most powerful contributing factor to resilience in Thai elderly (% of variances = 13.36). As known by the common trait of most Thai people, they value and depend on inter-personal relationships with others. Other common attributes of the Thai elderly such as hoping to get some help from their networks, relying on faith with adversity, and doing spiritual practice for gaining connection with supernatural power are additional evidences support for the particular Thai elderly characteristics. In addition, the study also revealed that the resilient in elderly is their independency rather than asking for help from others while facing adversity. This aspect made them

become self-reliant. However, Thai elderly may not need all of those features in the same time to be resilient, but one may not enough. In addition, the study results revealed the strong relationships among five factors (r =, 0.73 – 0. 83), this means that having more of these characteristics create more level of resilience.

Be able to join with people

This factor includes 6 items which represent social characteristics such as enjoy socializing, having opportunity to socialize, having a sense of humor during friendship, etc. All participants in the step of domain identification (n=14) reported on the benefit of socialization. The attribute relevant with other concepts include altruism, friendliness, being well-linked with peers, social enjoyment and cooperative which are important psychological resources at the later stage of life (Bar & Shiff, 2000). In addition, previous studies confirm that family and social networks play important role in building greater resilience. Furthermore, secure interpersonal relationships provide an important source of emotional support. (Greff, Vansteenwegen & Ide, 2006; Kumpfer, 1999; Luthans Vogelgesang, & Lester, 2006; Masten & Reed, 2005; Rotter, 1989; Ryan & Deci, 2000). Moreover, Fiori, Antonucci, & Cortina (2006) also agree that an active social network of family and friends can promote healthy aging through a variety of mechanisms including tangible and emotional support. However, the result may be distinguished from Staudinger et al. (1995) notion by older people are highly selective about their social relationships and optimize their social contacts by concentrating on those that provide emotional and affective benefits, comments from the participants in this study seem to suggest a different pattern. These participants seemed to welcome new friendships and love to join with others. Furthermore, the attribute is also distinct among age groups,

Takviriyanun (2008) reports that inner strength is reported to be the substantial component of resilience among Thai adolescents, the present study implicates that having good relationships with others are more commonly shared among resilient Thai elderly than inner strength.

Be confident to live

This component includes 5 items – value of life, patience, confidence, satisfied with life, and pride in self – all of which refer to an individual's feeling and concepts about self and abilities to deal with life's challenges. The result supports the fact that Thai elderly who can successfully cope despite adversity need to have positive view of self, especially the sense of mental strength. This means that the healthier the mind the greater the resilience. The elderly who have the sense of mental strength should have high ability to deal with crisis. The emotionally healthy are often in control of their emotions and their behaviors. They are able to handle life's inevitable challenges, build strong relationships, and lead productive and fulfilling lives. When bad things happen, they're able to bounce back and move on. Several studies indicate that resilience is associated with emotional health (Broyles, 2005; Humphreys, 2003; March, 2004; Nygren et al., 2005; Rew, Taylor-Seehafer, Thomas, & Yockey, 2001). Terms that are used to describe these internal characteristic are self-efficacy and self-esteem (Bandura, 1979; Rutter, 1997). Evidence suggests that positive self-esteem, self-confidence, self-reliance, and self-efficacy are important components of resilience (Baldwin et al., 1993; Brooks, 1994; Cederblad, Dahlin, Hagnell, & Hansson, 1994; Cicchetti, Rogosch, Lynch, & Holt, 1993; Conrad & Hammen, 1993; Masten, 1994; Milgram & Palti, 1993; Taylor, 1994)

Having social support

This component includes 4 items such as having someone in family who can be trusted, having someone, form the family or a group network, who can provide emotion and financial support. All participants stressed that emotional support is an important kind of social support and is seen as a source of affection, comfort, and companionship. Hupcey (1998) emphasizes that the social support component is influential to resilience. Also as mentioned by Shaw et al. (2007), older people tend to focus the bulk of their social outreach and contact on their closest social networks, specifically family members. In addition, social support from the wider community also serves as a building block for resilience (Greff, Vansteenwegen & Ide, 2006;). Kumpfer, 1999; Luthans Vogelgesang, & Lester, 2006; Masten & Reed, 2005; Rotter, 1989; Ryan & Deci, 2000).

Living with spiritual security

This component includes 4 items – having a chance to pray for good life, engaging in religious practice regularly, relying on spiritual beliefs, and using religious doctrine to solve problems. Generally, spiritual belief is viewed as divine powers that assure the elderly that they are not alone. Prayer is seen as a means to reach for help during difficult times. This component seems to be congruent with the attributes related to resilience, i.e., personal beliefs and values (Polk, 1997), having a strong faith, belief in a divine power, and prayer , (Crummy, 2002), religiosity, spirituality, and faith (Ong & Bergerman, 2004 Corner & Davidson, 2003), culture-based health beliefs (Felten, 2000), personal support and other kinds of support (Takviriyanan, 2004), and feeling connected (Alex, 2010). Furthermore, religious or spiritual belief has been implicated as an external component that can aid resilience

by instilling a sense of hope in some individuals (Connor & Davidson, 2003; Johnson, 2000). Moreover, additional evidence supports resilience as an ability to successfully adapt using strong faith and spiritual upbringing of the elderly widowers following the death of a spouse (Crummy, 2002).

Be able to de-stress and manage problems

This component consists of 5 items such as, positive self talk, learning from previous experiences, relieving stress by self, and sharing suffered feelings with a trusted person. This component reflects the capacity of an individual to cope during difficulty which is central to their resilience. Resilient individuals are more likely to feel confident that they can cope successfully with adversity, and often employ a range of problem-solving and emotion-focused strategies (Caltabiano & Caltabiano, 2006; Masten & Reed, 2005; Rutter, 1987).

Research question 2: To what extent does evidence support the content validity of the TER scale?

The TER scale has been tested for its content validity by a panel of six experts specialized in the area of resilience and elderly. They were invited to evaluate the relevancy of all generated items based on provided conceptual definitions. A total CVI of the TER scale was .97 which indicated that the content validity is effectively representative of the Thai elderly resilience. Content validity concerns all items' content based on the structural concept of variables that it intends to measure, the items thus need to reflect full range of the attributes of the concept being measured (Lynn, 1986). Moreover, the item pool was obtained from specific sources, existing literatures and evidences related to elderly resilience including interviews and discussion among group of Thai elderly related to resilience which is representative of

relevant population. Therefore the evidence supports the content validity of the TER scale.

Research question 3: *To what extent does evidence support the construct validity of the scale?*

Three methods used for construct validity evaluation of the TER scale were factor analysis, known group technique, and hypothesis testing. Their results were expected to provide evidences supporting for the construct validity of the TER scale. The results of exploratory factor analysis indicate that the 5-factors TER scale with 24 items is a well-constructed instrument to measure resilience of the Thai elderly. All items in each component of the scale are well organized which is illustrated by each factor having an eigenvalues greater than 1.0 and any variance > 5.0% (Munro, 2005). In addition, scores from all five factors, which together accounted for 54.56 % of the variance of total TER score, indicate that the TER scale is adequate for capturing the main attributes of the Thai elderly resilience (Devellis, 1991).

In order to prove the hypothesis of which resilience is positively associated with mental health, the study must confirm that resilient Thai elderly participants (as measured by TER scale) are mentally healthy (as measured by Thai Mental Health Indicator: TMHI). As expected, the Thai elderly participants with high resilience score (TER) showed significantly high TMHI scores. Undoubtedly, this evidence not only supports the research hypothesis but also the construct validity of the TER scale. Similar theoretical proposition regarding the positive correlation between resilience and mental health has been in fact supported by several studies (Broyles, 2005; Hardy, Concato & Gill 2002; Humphreys, 2003; March, 2004; Nygren et al., 2005; Rew, Taylor-Seehafer, Thomas & Yockey, 2001; Wagnild, 2003). Furthemore, Friedli

(2009) also specified that resilience, health asset, capabilities, and positive adaptation are fundamental element of mental health that enable people both to cope with adversity and to reach their full potential and humanity. These collective findings lend a tremendous support to furthering a study of Thai elderly resilience as a state and/or trait measure. A hypothesis that resilience may be considered both state and trait could be tested.

Furthermore, known group technique was also used to test the construct validity of the scale. The results found a significant difference between the mean scores of the two groups, Thai elderly participants who lived with spouse and children and those who lived in shelter homes. It is possible to point out that family and social support networks play a significant role to promote resilience in Thai elderly. The statement was supported by the evidence of "be able to join with people" as the priority to explain resilience in Thai elderly. The hypothesis is proved once again that social support plays a significant role in nurturing resilience in Thai elderly. These findings further support construct validity of the scale, i.e., the TER scale can differentiate the resilient Thai elderly. Many studies also have supported the idea that the primary contributing factor of resilience is to have caring and supportive relationships, including relationships that create love and trust as well as encouragement and reassurance, within and outside the family unit (Felten, 2000; Bauman, Sheri, Adams, Harrison,Waldo & Michael, 2001; Shen & Zeng, 2010; Takvivriyanun, 2008; Netuveli, Wiggins, Montgomery, Hildon & Blane, 2008).

Research question 4: To what extent does evidence support the reliability of the instrument?

The results of reliability evaluation of the TER scale were confirmed on its internal consistency and stability. The internal consistency reliability of the TER scale is considered high since the Cronbach's alpha for overall TER scale received from three times testing, pre testing, field testing, and final testing ranged from 0.91 to 0.94. In addition, the internal consistency of the items within all subscales yielding alpha ranged from 0.72 to 0.86 indicate a quite high degree of homogeneity. Furthermore, the results of item-total correlations were at moderate to high (α = 0.39 - 0.61), indicating adequate reliability based on Burn & Grove (2001), Lynn (1985), and Polit & Hungler (1999) who indicating a correlation coefficient of a newly develop instrument is accepted at 0.70 or greater. This finding is consistent with the studies using a similar framework (Grotberg, 1995) in assessing resilience factors among Thai youth, whose coefficient ranged from 0.88 to 0.90 (Lhimsoonthon, 2000; Takviriyanun, 2002). In addition, the finding is also congruent with other resilience scales, which used multidimensional construct of resilience reflecting alpha ranged from 0.89 to 0.91(Connor & Davidson, 2003; Ryan, 2009; Smith et al., 2008; Yu & Xhang, 2007; Lundman, Strandberg, Eisemann, Gustafson & Brulin, 2006). The evidences support the internal consistency or homogeneity of all items in the TER scale, thus appearing to collectively measure the concept of resilience and nothing else (David, 1996; Jacobson, 2004). As a result, the final version of the 24- item TER scale, yielding the alpha coefficient of 0.91, is considered as highly acceptable for a newly developed instrument.

The result of test- retest reliability evaluation (n = 30) using Pearson's Product moment correlation indicate stability of the TER scale over the two weeks period of testing. The test re test correlation of 0.91 in this study was similar with a little study that reported the stability estimate of the resilience scale from 0.61 to 0.89 at 1 month, and 3 month duration (Connor & Davidson, 2003; Nygren, Randström, Lejonklou & Lundman, 2004; Smith et al., 2008; Wagnild & Young, 1993; Yu & Xhang, 2007). The evidence supports for the stability of the TER scale and additionally confirms the nature of resilience as a trait construct.

Summary

The goals of this study were to develop a conceptual structure of resilience in Thai elderly, a Thai version of elderly resilience scale (TER scale), and evaluate its psychometric properties. The TER scale development consisted of stage of development and psychometric evaluation. The results of all developing stage including discussion on each research were described.

The results from the instrumentation produce a specifically cultural measure. The constructs elaborate the underlying three sources of resilience, i.e., having positive interpersonal & intrapersonal characteristics, social & spiritual supports, and ability to de-stress and manage problems. The testing results of validity and reliability prove TER's internal consistency, stability, and construct validity. The findings provided support for reliability and validity accepting the TER scale as a newly developed instrument.

CHAPTER 5

CONCLUSIONS AND RECOMENDATIONS

This chapter provides a summary of the study which is divided into three parts. The first part focuses on the conclusion based on the results, the second part sheds light on the strength and limitations of the study, and the last part proposes the implications and recommendations from the study.

Conclusions

The purposes of the study were to identify a conceptual structure of the elderly resilience in Thai context, to develop the scale to measure resilience in Thai elderly as well as to evaluate its psychometric properties.

The investigation adopted a two-step approach: 1) an integrated systematic review of national and international publications and 2) interviews & discussion with a group of Thai elderly. Three resilience identifiers – "I AM," "I HAVE," and "I CAN" – were used as a guide to conduct the interviews and to explore the initial conceptual structure of resilience among the Thai elderly. Theories and research models from extant literatures were consolidated and used as references. Three domains, consisted of 19 components of the Thai elderly resilience, were revealed. Once the interviews & group discussion among 14 representatives of resilient Thai elderly were conducted, three pre - specified domains, consisted of 18 components, were confirmed.

The first draft 50-item TER scale was generated from the existing domains and content validity evaluation by 6 experts. After revision, the second draft 47- item TER scale was developed with Content Validity Index (CVI) at 0.97. Then the face validity testing, performed by 5 Thai elderly, suggested minor rewording. The second draft TER scale with the same 47 items moved further on to the pre – testing stage. The results revealed Cronbach's alpha coefficient at .94 and acceptable majority of item to item correlation, ranged from .30 -. 69. In conclusion, the second draft 47-item TER scale was created with a sound internal consistency including acceptable item to item correlation.

Field testing for item analysis, internal consistency, and factor analysis was performed using the second draft 47- item TER scale. The results showed acceptable correlations between item to item, items to subscale, subscale to subscale, subscale to total, and item to total respectively. In addition, the internal consistency was reported by the Alpha of 0.91. Exploratory Factor Analysis (EFA) was used to confirm the construct validity. The scale's 47 items were reduced to 24 items; the other 23 items were deemed meaningless in estimating the latent variables due to their communality lower than 0.40. The final TER scale (after EFA) consisted of 24 items categorized within 5 factors, i.e., 1) having positive interpersonal characteristics (6 items), 2) having positive intrapersonal characteristics (5 items), 3) having social support (4 items), 4) having spiritual security (4 items), and 5) having ability to de-stress and manage problems (5 items). The final draft TER scale was conducted in final testing.

Final testing of hypothesis testing, known group approach, stability, and internal consistency was conducted in this step. The findings of hypothesis testing showed that the Thai elderly who had higher scores on resilience had higher scores

Thai Mental Health Indicator. A strong positive correlation between the two score was evidenced ($r = .84$, $p < .01$), supporting the hypothesis that mental health has a positive correlation with resilience. In addition, the known group approach using t – test statistics indicated the mean TER scores of two groups of the elderly, one living in shelter homes and the other living with spouse and children, was significantly different ($p < .01$), supporting that the TER scale can differentiate members of one group from another. Furthermore, the stability evaluation using test – retest method, by having a group of the elderly examine the scale two different times, demonstrated a high level correlation between time 1 & time 2 at 0.91. The results confirmed the stability of the 24-item TER scale. Moreover, results of internal consistency stated that alpha coefficient at 0.91 reflecting good reliability.

The final result of TER scale revealed 5 factors with 24 items, which would be useful to thoroughly assess resilience in Thai elderly. In addition, it is designed so that the Thai researchers and practitioners in the Thai elderly may apply it in Thai context.

Strengths and Limitations of the Study

The strength of this study lies in its theoretical foundation and methodology. The underlying theories obtained from extant literature review and the qualitative data from the interviews of Thai elderly were systematically processed and aligned. Furthermore, the methodology, including the step-by-step scale development - sample, instrument, data collection and data analysis, emphasizes the representation of Thai context, e.g., sampling included the elderly from all four regions of Thailand, taking Thai cultural values into consideration, etc. All of these effectively guarantee that TER scale fit in Thai context.

However, all studies have limitations and this study is no exception. The generalizability of the research findings may be limited because the study sample was obtained through convenience sampling including a greater representation of females to males in elderly, which may affect the representativeness of the population. Another limitation of this study is that the number of stressors or the degree of adversity that people in this sample have faced was not specified; therefore it was difficult to determine if all individuals viewed as resilient had experienced comparable levels of adversity. In addition, the review of the literature revealed that no prior theories, models, or ground information of elderly resilience in the Thai context was available to use as the theoretical framework for this study. Finally, this study employed a cross-sectional research design, whereas resilience is a dynamic developmental construct that can be developed overtime of life span affect by various factors. Therefore, longitudinal studies are recommended to follow the process of resilience in case of individual resilience development.

Recommendations

The elderly resilience means the personal qualities that enable the elderly to rebound from adverse life events and go on with their lives. The study's results show that Thai elderly resilience is fostered by positive interpersonal and intrapersonal characteristics, having social support and spiritual security, and the ability to cope and de-stress. Furthermore, the validity and reliability testing confirmed that the newly developed scale can be used as an objective tool to assess the resilience level of Thai elderly, especially for those at-risks of enduring difficult situations in life. Therefore,

the conceptual structure of the Thai elderly resilience and the newly developed scale could have potential utility in both clinical practice and research, as presented below.

1. The understanding of the resilience in Thai elderly could be an important benefit for the designing and implementation of nursing interventions to promote and enhance resilience in the aging population.

2. The new TER scale could benefit nursing practice as it can be used to assess and detect early signs of mental health problems among the elderly.

3. The level of resilience gained from the assessment can provide valuable information on the risk of developing mental health problems among Thai elderly. The appropriate intervention program can be built based on the elderly needs and context. Moreover, the scale will be useful in an evaluation of the nursing interventions by testing its effectiveness on the resilience level.

4. The resilience scale is not only useful for nursing practice but also beneficial for nursing research focusing on mental health among the elderly. Since the interrelatedness of the elderly resilience construct was disclosed by this research, future research aiming to develop nursing knowledge through testing a middle range theory of the elderly resilience can be conducted. Besides, nursing researchers will be able to use the emerging data in this study to explore the relative factors of resilience in order to gain understanding on the reality of mental health among the Thai elderly.

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APPENDICES

APPENDIX A

EXISTING INSTRUMENTS

Table 23

Existing Instruments

Instrument name (Author (s), year)	Resilience Scale (RS) (Wagnild & Young, 1993)	Connor-Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003)	Adolescent Resilience Scale (ARS) (Oshio, Kaneko, Nagamine & Nakaya, 2003)	Resilience Factors for Thai Adolescences (RFS) (Takviriyanan, 2008)	Resilience Quotient (RQ) (Mental Health, Department of Thailand, 2008)	Brief Resilience Scale (BRS) (Sinclair & Wallston, 2004)
Domain / construct	Five domains, i.e., equanimity, perseverance, self reliance, meaningfulness, and existential aloneness	Various concepts, i.e., hardiness, strong self esteem, solving skill, spiritual influence and previous experience of success	Three factors, i.e., novelty seeking, emotional regulation, and positive future orientation.	Three sources of resilience, i.e., I HAVE, I AM, I CAN	Three domains, i.e., the ability on stress resistance, hope and morale, and ability on thriving difficult circumstance	- Four pattern reflect resilience, i.e., dispositional, relational, situational, and philosophical pattern
Target & setting	- Adults of senior citizen, age range 53-95 (mean=71.1)	- Subjects from multi setting, i.e., general population, primary care outpatients, psychiatric outpatient	- Undergraduate student (age range 19-23	Ninth – Twelve graders in 4 high schools of Bangkok, Thailand	General population age 25 – 60 years	- Adults with rheumatoid arthritis

148

Table 23 *(continue)*

Instrument name	Resilience Scale (RS)	Connor-Davidson Resilience Scale (CD-RISC)	Adolescent Resilience Scale (ARS)	Resilience Factors for Thai Adolescences (RFS)	Resilience Quotient (RQ)	Brief Resilience Scale (BRS)
Author (s), year	Wagnild & Young, 1993	Connor & Davidson, 2003	Oshio, Kaneko, Nagamine, & Nakaya, 2003	Takviriyanan, 2008	Department of Mental Health, Thailand, 2008	Sinclair & Wallston, 2004
Dimensionality	Factor analysis yielded 2 subscales, i.e., personal competence and acceptance of self and life	Factor analysis yielded 5 subscales, i.e., personal competence, high standards, and tenacity,	Factor analysis yielded 3 subscales, i.e., novelty seeking, emotional regulation, and positive future orientation	Factor analysis yielded 6 components, i.e., determination and problem solving skills, balance of self and social skills, positive thinking, assertiveness, personal supports, and other kind of supports	Three factors, i.e., the ability to resist stress, the ability to find hope and will to live despite difficulty, and the ability to persevere through difficult circumstance.	Unidimensional A factor analysis did not support multidimensionality of the scale

Table 23 *(continue)*

Instrument name	Resilience Scale (RS)	Connor-Davidson Resilience Scale (CD-RISC)	Adolescent Resilience Scale (ARS)	Resilience Factors for Thai Adolescences (RFS)	Resilience Quotient (RQ)	Brief Resilience Scale (BRS)
Author (s), year	Wagnild & Young, 1993	Connor & Davidson, 2003	Oshio, Kaneko, Nagamine, & Nakaya, 2003	Takviriyanan, 2008	Department of Mental Health, Thailand, 2008	Sinclair & Wallston, 2004
Reliability & Validity	- Cronbach's alpha coefficient was at 0.91 - Test retest score .67 - .84 - Factor analysis yielding 2 factors, 25 items, all factor loading were .40 or higher - Significant in the expected direction at p≤ .01 represent concurrent validity.	- Cronbach's alpha coefficient was at 0.89 - Test–retest reliability was 0.87 - Scores were positively correlated with the hardiness p≤.0001supported convergent validity. - Discriminant validity was not significantly correlated with the ASEX at baseline - Mean pre- and post-treatment scores were	- Cronbach's alpha coefficients was at .85 - Correlations among all factors were 0.72 to 0.75, for subscale novelty seeking was 0.75), emotional regulation was 0.77, and positive future orientation was 0.81	- Two pairs of items were not significant (2-22, 2-18) - Internal consistency at three time were acceptable (α = 0.88-0.90) The contrast group approach with adolescences that drank and did not. The statistical was significant participants who drank lower than who didn't drink.	- The investigators claimed good psychometric properties but did not show data	- Cronbach's alpha coefficient was 0.69 - 0.71 - Test-retest reliability was 0.71 - 0.83

significant.

Table 23 *(continue)*

Instrument name	Resilience Scale (RS)	Connor-Davidson Resilience Scale (CD-RISC)	Adolescent Resilience Scale (ARS)	Resilience Factors for Thai Adolescences (RFS)	Resilience Quotient (RQ)	Brief Resilience Scale (BRS)
Author (s), year	Wagnild & Young, 1993	Connor & Davidson, 2003	Oshio, Kaneko, Nagamine, & Nakaya, 2003	Takviriyanan, 2008	Department of Mental Health, Thailand, 2008	Sinclair & Wallston, 2004
Strength	- Domain identification from qualitative study reflected real word construct - Reliability and validity were acceptable - Multiple approach on validity and reliability confirmed qualified scale - Scale development step was clearly	- Test in general population and in clinical sample - Good internal consistency and test retest reliability - Validity demonstrated with other measures of stress and hardiness reflecting difference level of resilience - 4 item Likert-force response to positive or negative	The scale correctly reflects psychological features of individual who show resilience after facing negative life events.	The scale was developed in Thai culture fit to study in Thai culture	- The scale was developed in Thai culture - Available, every can use as self report when facing adversity.	- Easy to administer (4 items) - Sufficient internal consistency and stability for a 4-item scale - Scale can easily be administered multiple times in a longitudinal study

Table 23 *(continue)*

Instrument name	Resilience Scale (RS)	Connor-Davidson Resilience Scale (CD-RISC)	Adolescent Resilience Scale (ARS)	Resilience Factors for Thai Adolescences (RFS)	Resilience Quotient (RQ)	Brie Resilience Scale (BRS)
Author (s), year	Wagnild & Young, 1993	Connor & Davidson, 2003	Oshio, Kaneko, Nagamine, & Nakaya, 2003	Takviriyanan, 2008	Department of Mental Health, Thailand, 2008	Sinclair & Wallston, 2004
Weakness	- Domain may be not fit with Thai context due to resilience - only internal traits may be not represent resilience - 7 points scale may limitation using for Thai elderly	- Measure resilience as characteristics - Lack of administration procedure description and detailed scoring procedure - No reverse scored items (risk for rating bias) - Designed for use within mental health clinical sites	- Findings only generalized to Japanese adolescents - Limitation to Thai context - Lack of administration procedure description and detailed scoring procedure	- The scale demonstrated adolescence resilience characteristics may be difference with characteristic of elderly resilience	- The scale designed to assess RQ in Thai adult population ages 25-60 years old - No publication of development and testing - populations were random from 12 out 77 province may be not represent Thai resilient	- Scale meets minimal reliability standards (0.70) - Scale brevity (4 items) can affect internal consistency - Lack of administration procedure description and detailed scoring procedure

APPENDIX B

INTERVIEW GUIDELINE

(Thai Version)

แบบสัมภาษณ์ งานวิจัย เรื่อง

การพัฒนาและทดสอบคุณภาพแบบประเมินพลังสุขภาพจิต สำหรับผู้สูงอายุไทย

ส่วนที่ 1 ข้อมูลส่วนบุคคล

1. ภูมิลำเนา☐ ภาคใต้ ☐ ภาคกลาง ☐ ภาคอีสาน ☐ ภาคเหนือ

2. เพศ ☐ ชาย ☐ หญิง

3. อายุ.....ปี

4. ที่อยู่.....เบอร์โทร.....

5. สถานภาพสมรส

☐ โสด ☐ สมรส ☐ แยกกันอยู่

☐ หม้าย ☐ หย่า ☐ อื่นๆ.....

6. สถานภาพการอยู่อาศัย

☐ อยู่ตามลำพัง ☐ อยู่กับคู่สมรส ☐ อยู่กับครอบครัว/ บุตร / หลาน

☐ อยู่กับญาติ ☐ อื่นๆ.....

7. การศึกษาสูงสุด

☐ ไม่ได้เรียน ☐ น้อยกว่าประถม 4 ☐ ประถม 4 – 6 ☐ มัธยมศึกษา ☐ ปวช. / ปวส.

☐ ปริญญาตรี ☐ สูงกว่าปริญญาตรี

8. อาชีพ

☐ ว่างงาน ☐ รับจ้าง ☐ รับราชการ / รัฐวิสาหกิจ

☐ เกษตรกร ☐ อื่นๆ……..

9. รายได้.....ต่อเดือน

10. แหล่ง ที่มาของรายได้

☐ คู่สมรส บุตรหลาน ญาติพี่น้อง ☐ การประกอบอาชีพ ☐ เงินช่วยเหลือจากรัฐบาล

☐ เงินสะสม ☐ อื่นๆ.....

11. ภาวะสุขภาพกายทั่วไปในปัจจุบัน

☐ แข็งแรงดี

☐ ปานกลาง.....

☐ ไม่แข็งแรง (ระบุโรคและระยะเวลาการเจ็บป่วย)

12. ภาวะสุขภาพด้านจิตใจในปัจจุบัน

☐ ดี ☐ ปานกลาง (ระบุ) ..... ☐ แย่ (ระบุ).....

13. ประวัติการเข้ารับการรักษาด้วยปัญหาสุขภาพจิตในสถานบริการสาธารณสุข

☐ ไม่เคย ☐ เคย (ระบุอาการ และระยะเวลา).....

ส่วนที่ 2 แนวคำถามที่ใช้ในการสัมภาษณ์ผู้สูงอายุที่ประสบวิกฤตในชีวิต

1. ในช่วง 1 ปีที่ผ่านมาท่านเผชิญเหตุการณ์วิกฤตในชีวิต อะไรบ้าง

   ☐ สูญเสียคนที่รัก…….....
   ☐ ขาดรายได้…….....
   ☐ ประสบภัยพิบัติ……
   ☐ ไม่มีที่อยู่/ย้ายที่อยู่……
   ☐ ออกจากงาน/เกษียณ…….....
   ☐ ถูกกระทำรุนแรง……
   ☐ ป่วยเป็นโรคเรื้อรัง/ดูแลผู้ป่วยเรื้อรัง……..
   ☐ อื่นๆ……

2. ท่านเรียกเหตุการณ์นี้ว่าอย่างไร
3. เหตุการณ์เหล่านั้นเกิดผลกระทบต่อชีวิตของท่านอย่างไร
   ☐ ด้านร่างกาย
   ☐ ด้านจิตใจ/อารมณ์
   ☐ สังคม
   ☐ อื่นๆ.....
4. ปัจจัยส่วนบุคคลที่ส่งเสริมให้ท่านปรับตัวได้ดีในสถานการณ์ยากลำบากของชีวิตมีอะไรบ้าง
5. ท่าน มีสิ่งใดที่เป็นแหล่ง สนับสนุนช่วยเหลือให้ท่านสามารถปรับตัวได้ดีในสถานการณ์ยากลำบาก
6. ท่านมีทักษะอย่างไร ในการอยู่ร่วมกับผู้อื่นและแก้ไขปัญหาเพื่อให้สามารถปรับตัวได้ดีในสถานการณ์ยากลำบาก

APPENDIX C

PROTECTION OF HUMAN SUBJECTS

Protection of Human Subject's Rights

Dear, all

I am Mrs. Sonthaya Maneerat, a doctoral student of faculty of nursing, Prince of Songkla University, Songkla. I am interesting to study in resilience process from Thai elderly who have experience in adversity life events. The main objective of this study is to learn about resilience process of yours. The results will be used to guide other people, situation, develop resilience scale for Thai elderly, and develop nursing care service for elderly who have suffering from adversity life events in further.

You are the one significant person who has experience in adversity life events, so you were invited to participate in my study. If you decide to participate, you will be interviewed individually by the researcher about thirty minute or more upon your request and may be more once time for interview. In our study some of participant will invite to group participation for sharing some experience in adaptation process.

There is no physical risk involved in your participation but may be any psychological risk during participation such as sad to talk about experience, anger for something etc. In this case the researcher will help you by emotional support and other supporting. You can make sure that you are free to withdraw from participating at any time without penalty.

Your name will not appear on any paper, only a confidential code number will appear on the paper. The number will be assigned by me and known only to me for kept your confident. You decision whether or not to participate in this study will not prejudice you.

A form below is attached for you to keep your agreement records in this study. You can make decision whether or not to sign your name in this form. Your signature indicates that you have read the information provided, understand it. Please feel free to choose it

……..
(Mrs. Sonthaya Maneerat)
Doctoral student, Prince of Songkla University

This sector for participant

I receive all of information about that study from both of above information and the researcher. I understood and agree with the researcher to participate in that study.

……
Signature of participant

Date……..

แบบพิทักษ์สิทธิผู้เข้าร่วมวิจัย (ก)

เรียน.....

ดิฉัน นางสนธยา มณีรัตน์ นักศึกษาปริญญาเอก สาขาการพยาบาล คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ จ. สงขลา สนใจที่จะศึกษาวิจัย เรื่อง การพัฒนาเครื่องมือประเมินความสามารถในการปรับตัวสำเร็จเมื่อเผชิญภาวะวิกฤติ สำหรับผู้สูงอายุไทย โดยมีวัตถุประสงค์เพื่อ ศึกษาประสบการณ์การปรับตัวของผู้สูงอายุที่ผ่านภาวะวิกฤติในชีวิต และนำผลการศึกษาดังกล่าวไปพัฒนาเครื่องมือสำหรับประเมินความสามารถในการปรับตัวของผู้สูงอายุไทยต่อไป

ท่านเป็นผู้หนึ่งที่มีความสำคัญในการศึกษาครั้งนี้ เนื่องจากเป็นมีประสบการณ์การปรับตัวที่ประสบความสำเร็จในการเผชิญภาวะวิกฤต ดังนั้น ท่านจึงถูกเชิญเข้าร่วมการวิจัยครั้งนี้ หากท่านตอบรับเข้าร่วมวิจัย ท่านจะได้รับการสัมภาษณ์ประสบการณ์ของท่านในการเผชิญภาวะวิกฤต ที่ผ่านมาโดยผู้วิจัย ซึ่งจะใช้เวลาประมาณ 30-45 นาที ขึ้นอยู่กับความสะดวกของท่าน และหากจำเป็นท่านอาจได้รับเชิญเข้าร่วมในการแลกเปลี่ยนประสบการณ์ของท่านกับผู้สูงอายุอื่นๆ

การเข้าร่วมวิจัยครั้งนี้ จะไม่เกิดผลกระทบใดๆ ต่อร่างกายของท่าน หากขณะสัมภาษณ์ท่านเกิดความรู้สึกไม่สบายใจ หรือต้องการความช่วยเหลือด้านจิตใจ ผู้วิจัยยินดีให้ความช่วยเหลือขณะนั้นและส่งต่อไปยังหน่วยงานที่เฉพาะเจาะจง หากมีความจำเป็น อย่างไรก็ตาม ท่านสามารถถอนตัวจากการวิจัยได้ตลอดเวลา โดยไม่ส่งผลกระทบใดๆ ต่อท่านทั้งสิ้น

ข้อมูลที่ได้จากการศึกษาจะถูกเก็บไว้เป็นความลับ จะไม่มีการเปิดเผยชื่อ หรือที่อยู่ของท่าน และข้อมูลทั้งหมดจะถูกนำเสนอในภาพรวมเท่านั้น หากท่านยินดีเข้าร่วมวิจัยครั้งนี้ ท่านสามารถแจ้งด้วยทางวาจา หรือลงมือชื่อไว้ที่แบบฟอร์มด้านล่าง

.....

(นางสนธยา มณีรัตน์)

นักศึกษาปริญญาเอก

คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์

สำหรับผู้เข้าร่วมวิจัย

ข้าพเจ้าได้รับทราบข้อมูลการเข้าร่วมวิจัย จากผู้วิจัย และเอกสารฉบับนี้แล้ว ข้าพเจ้าเข้าใจในวัตถุประสงค์และขั้นตอนการเข้าร่วมวิจัยครั้งนี้เป็นอย่างดี ข้าพเจ้ายินดีเข้าร่วมโครงการวิจัยครั้งนี้ จึงลงลายมือชื่อไว้เป็นหลักฐาน

ลายมือชื่อ.....

วันที่.....

แบบพิทักษ์สิทธิผู้เข้าร่วมวิจัย (ข)

เรียน.....

ดิฉัน นางสนธยา มณีรัตน์ นักศึกษาปริญญาเอก สาขาการพยาบาล คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ จ. สงขลา สนใจที่จะศึกษาวิจัย เรื่อง การพัฒนาและทดสอบเครื่องมือประเมินความสามารถในการปรับตัวสำเร็จเมื่อเผชิญภาวะวิกฤติ สำหรับผู้สูงอายุไทยโดยมีวัตถุประสงค์เพื่อ ศึกษาประสบการณ์การปรับตัวของผู้สูงอายุที่ผ่านภาวะวิกฤติในชีวิต และทดสอบความน่าเชื่อถือของเครื่องมือ และนำผลการศึกษาดังกล่าวไปใช้ในการประเมินความสามารถในการปรับตัวของผู้สูงอายุไทย และวางแผนให้การช่วยเหลือต่อไป

ท่านเป็นผู้หนึ่งที่มีความสำคัญในการศึกษาครั้งนี้ หากท่านตอบรับเข้าร่วมวิจัย ดิฉันใคร่ขอความร่วมมือจากท่านในการตอบแบบสอบถาม ซึ่งจะใช้เวลาประมาณ 15 -30 นาที ขึ้นอยู่กับความสะดวกของท่าน โดยการเข้าร่วมวิจัยครั้งนี้ จะไม่เกิดผลกระทบใดๆ ต่อร่างกายของท่านทั้งสิ้น และขณะสัมภาษณ์หากท่านเกิดความรู้สึกไม่สบายใจหรือต้องการความช่วยเหลือด้านจิตใจ ผู้วิจัยยินดีให้ความช่วยเหลือขณะนั้นและส่งต่อไปยังหน่วยงานที่เฉพาะเจาะจง หากมีความจำเป็น อย่างไรก็ตาม ท่านสามารถถอนตัวจากการวิจัยได้ตลอดเวลา โดยไม่ส่งผลกระทบใดๆต่อท่านทั้งสิ้น

ข้อมูลที่ได้จากการศึกษาจะถูกเก็บไว้เป็นความลับ จะไม่มีการเปิดเผยชื่อ หรือที่อยู่ของท่าน และข้อมูลทั้งหมดจะถูกนำเสนอในภาพรวมเท่านั้น หากท่านยินดีเข้าร่วมการวิจัยครั้งนี้ ท่านสามารถแจ้งด้วยทางวาจา หรือลงชื่อไว้ที่แบบฟอร์มด้านล่าง

.....

(นางสนธยา มณีรัตน์)

นักศึกษาปริญญาเอก

คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์

สำหรับผู้เข้าร่วมวิจัย

ข้าพเจ้าได้รับทราบข้อมูลการเข้าร่วมวิจัย จากผู้วิจัย และเอกสารฉบับนี้แล้ว ข้าพเจ้าเข้าใจในวัตถุประสงค์และขั้นตอนการเข้าร่วมวิจัยครั้งนี้เป็นอย่างดี ข้าพเจ้ายินดีเข้าร่วมโครงการวิจัยครั้งนี้ จึงลงลายมือชื่อไว้เป็นหลักฐาน

ลายมือชื่อ.....

วันที่.....

APPENDIX D

INITIAL ITEM POOL

กระบวนการสร้างเครื่องมือ

Dimension	Physical strength	Emotional strength	Social ability & social support	Religious & Spiritual support	Effective coping skill
I AM ฉันเป็นคนที่.....	1. มีสุขภาพร่างกายแข็งแรง	3. พอใจในสุขภาพที่เป็นอยู่			
	2. ดูแลตัวเองในชีวิตประจำวันเพื่อให้มีสุขภาพดี	4. มีความอดทนต่อปัญหาที่เกิดขึ้นในชีวิต			
		5. มั่นใจว่าจะแก้ไขปัญหาที่เกิดขึ้นในชีวิตได้			
		6. มีความหวังในการมีชีวิตอยู่			
		7. มีความหวังว่าอนาคตจะดีขึ้น			
		8. ยอมรับความทุกข์ว่าเป็นเรื่องปกติของชีวิต			
		9. พบสิ่งดี ๆเกิดขึ้นท่ามกลางความทุกข์ยากในชีวิต			
		10. ยิ้มได้แม้ใจจะเป็นทุกข์			
		11. เชื่อว่าประสบการณ์ความทุกข์ยากทำให้ชีวิตของท่านแข็งแกร่งขึ้น			
		12. ไม่ท้อแท้ต่ออุปสรรคที่เกิดขึ้นในชีวิต			
		13. รู้สึกว่าชีวิตมีคุณค่า			
		14. ภาคภูมิใจในตัวเอง			
		15. มีความตั้งใจในการกลับไปใช้ชีวิตตามปกติให้เร็วที่สุดเมื่อประสบความทุกข์ในชีวิต			

Dimension	Physical strength	Emotional strength	Social ability & social support	Religious & Spiritual support	Effective coping skill
I HAVE ฉันมี.....			16. โอกาสได้พูดคุยกับผู้อื่นบ่อย	25. ความพึงพอใจในชีวิต	
			17. จิตอาสาช่วยเหลือผู้อื่น	26. โอกาสได้ปฏิบัติธรรมหรือทำบุญอยู่เสมอ	
			18. กิจกรรมกับกลุ่มคนอื่นๆ	27.ประสบการณ์การเอาชนะความทุกข์ยากในอดีต	
			19. คนสนิทที่ยังมีการติดต่อไปมาหาสู่กันอยู่เสมอ	28.การอธิษฐานเพื่อขอให้ชีวิตเป็นสุข	
			20. เพื่อนช่วยคลายทุกข์	29. สิ่งยึดเหนี่ยวจิตใจ	
			21. ความมั่นใจว่าจะมีคนช่วยเหลือยามมีความยากลำบากในชีวิต	30. ความเชื่อว่าสิ่งศักดิ์สิทธิ์จะช่วยเหลือในยามทุกข์ยากได้	
			22. ความมั่นใจว่าในยามลำบากจะมีหน่วยงาน/หรือองค์กรต่างๆให้การช่วยเหลือ	31. ความเชื่อว่าความทุกข์ยากที่เกิดขึ้นในชีวิตจะช่วยลดกรรมเก่า	
			23. ความคิดว่าชีวิตที่ดีทุกวันนี้ ส่วนหนึ่งเกิดจากการ	32. ความเชื่อว่าฉัน และทุกคนในโลกนี้มีกรรมเป็นของ	

Dimension	Physical strength	Emotional strength	Social ability & social support	Religious & Spiritual support	Effective coping skill
I HAVE ฉันมี.....			ได้ช่วยเหลือผู้อื่นในอดีต	ตนเอง	
			24. ความคิดว่าการเข้าร่วมในกลุ่มเพื่อนๆทำให้มีคนคอยช่วยเหลือมากขึ้น	33. โอกาสทำบุญเพื่อทำให้มีชีวิตที่ดีทั้งชาตินี้ และชาติหน้า	
				34. ความภูมิใจว่าการมีชีวิตอยู่ได้จนถึงวันนี้ เป็นกำไรของชีวิต	
I CAN ฉันสามารถที่จะ.....					35. ทำใจยอมรับความทุกข์ยากที่เกิดขึ้นในชีวิตได้
					36. ทำกิจกรรมได้ตามปกติ แม้มีเรื่องทุกข์ใจเกิดขึ้น
					37. คิดว่าปัญหาที่เกิดขึ้นไม่ได้เลวร้ายกว่าของผู้อื่น

163

Dimension	Physical strength	Emotional strength	Social ability & social support	Religious & Spiritual support	Effective coping skill
I CAN ฉันสามารถที่จะ.....					38. เมื่อมีทุกข์ท่านมีวิธีผ่อนคลายทุกข์ให้กับตัวเองได้
					39. พูดให้กำลังใจได้
					40. ตั้งสติได้เมื่อมีเหตุการณ์เลวร้ายเกิดขึ้นในชีวิต
					41. นำบทเรียนจากอดีตมาใช้ในแก้ปัญหาชีวิตได้
					42. ไม่คิดทำร้ายตัวเอง แม้รู้สึกไม่มีทางออกให้กับชีวิต
					43. หาทางแก้ไขปัญหาเพื่อให้อยู่ได้เหมือนคนอื่นๆ

164

Dimension	Physical strength	Emotional strength	Social ability & social support	Religious & Spiritual support	Effective coping skill
					44. ปล่อยวางได้เมื่อต้องเข้าร่วมกิจกรรมกับผู้อื่น
					45. ขอความช่วยเหลือจากผู้อื่นได้
					46. ปฏิบัติคำแนะนำของผู้อื่นได้
					47. ใช้ศาสนาเป็นที่พึ่งทางใจเมื่อมีทุกข์ได้
					48.ใช้หลักธรรมะช่วยในการแก้ไขปัญหาที่เกิดขึ้นกับชีวิตได้
					49. นอนหลับได้แม้มีเรื่องทุกข์ใจ
					50. ระบายความทุกข์ให้ผู้อื่นฟังได้

165

166

เครื่องมือที่ใช้ในการวิจัย

<u>คำชี้แจง</u> แบบสอบถามนี้ ประกอบด้วย 2 ส่วน คือ 1) ข้อมูลทั่วไป และ2) แบบประเมินความเข้มแข็งและความสามารถในการปรับตัวสู่ภาวะปกติเมื่อประสบความทุกข์ยากในชีวิต

“ความทุกข์ยากในชีวิต” หมายถึง สภาวการณ์อันเลวร้าย หรือเหตุการณ์ที่ก่อให้เกิดความเครียดในชีวิต ซึ่งอาจเป็นได้ทั้ง สภาวการณ์จากภายนอก เช่น ประสบภัยพิบัติทางธรรมชาติ และภัยที่เกิดจากมนุษย์และสภาวการณ์ภายในของบุคคลและครอบครัว เช่น การสูญเสียบุคคลอันเป็นที่รัก ความล้มเหลวในการงาน การหย่าร้าง การถูกให้ออกจากงาน กระทำรุนแรง และการไร้ที่อยู่อาศัย เป็นต้น

ส่วนที่ 1 ข้อมูลทั่วไป เป็นข้อมูลของท่าน ประกอบด้วย เพศ อายุ ที่อยู่สถานภาพสมรส สถานภาพการอยู่อาศัย ระดับการศึกษา อาชีพ รายได้ แหล่งที่มาของรายได้ ภาวะสุขภาพด้านร่างกาย ภาวะสุขภาพด้านจิตใจ ประวัติการรักษาด้านจิตใจ และประสบการณ์การเผชิญความทุกข์ยากในชีวิต เป็นแบบเลือกตอบและเติมคำ จำนวน 13 ข้อ **(ท่านมีอิสระในการให้ข้อมูลส่วนนี้ตามความสมัครใจ)**

ส่วนที่ 2 แบบประเมินความเข้มแข็งและความสามารถของผู้สูงอายุไทยในการปรับตัสู่ภาวะปกติเมื่อประสบความทุกข์ยากในชีวิตเป็นแบบเลือกตอบ มีทั้งหมด50 ข้อ

ส่วนที่ 1 ข้อมูลทั่วไป

<u>คำชี้แจง</u> กรุณาตอบแบบสอบถามนี้โดยทำเครื่องหมาย ✓ ลงใน ☐ หน้าข้อความหรือเติมข้อความลงในช่องว่างให้สมบูรณ์และตรงตามความเป็นจริงเกี่ยวกับตัวท่าน

1. เพศ ☐ ชาย ☐ หญิง
2. อายุ..... ปี (มากกว่า 6 เดือน คิดเป็น 1 ปี)
3. ที่อยู่.....เบอร์โทร.....
4. สถานภาพสมรส
   ☐ โสด ☐ สมรส ☐ แยกกันอยู่
   ☐ หม้าย ☐ หย่า ☐ อื่นๆ.....
5. สถานภาพการอยู่อาศัย
   ☐ อยู่คนเดียว ☐ อยู่กับคู่สมรส 2 คน ☐ อยู่กับคู่สมรส และบุตรหลาน
   ☐ อยู่กับบุตรหลาน หรือญาติ ระบุ..... ☐ อื่นๆ.....
6. การศึกษาสูงสุด
   ☐ ไม่ได้เรียน ☐ น้อยกว่าประถม 4 ☐ ประถม 4 – 6 ☐ มัธยมศึกษา
   ☐ ปวช. / ปวส. ☐ ปริญญาตรี ☐ สูงกว่าปริญญาตรี
7. อาชีพ
   ☐ ว่างงาน ☐ รับจ้าง ☐ รับราชการ/ รัฐวิสาหกิจ
   ☐ เกษตรกร ☐ อื่นๆ.....
8. รายได้
   ☐ ไม่มีรายได้ . ☐ มีรายได้.....บาทต่อเดือน

9. แหล่ง ที่มาของรายได้

☐ คู่สมรส บุตรหลาน ญาติพี่น้อง ☐ การประกอบอาชีพ

☐ เงินช่วยเหลือจากรัฐบาล ☐ เงินสะสม ☐ อื่นๆ.....

10. ภาวะสุขภาพกายทั่ วไปในปั จจุบัน

☐ แข็งแรงดี ☐ ปานกลาง.....

☐ ไม่แข็งแรง (ระบุ).....

11. ภาวะสุขภาพด้านจิตใจในปั จจุบัน

☐ ดี ☐ ปานกลาง..... ☐ แย่ ระบุ.....

12. ประวัติการเข้ารับการรักษาด้วยปั ญหาสุขภาพจิตในสถานบริการสาธารณสุข

☐ ไม่เคย ☐ เคย (ระบุอาการ และระยะเวลา).....

.....

13. ในช่วงชีวิตที่ผ่านมาท่านเคยประสบความทุกข์ยากในชีวิต หรือไม่

☐ ไม่เคย

☐ เคย (ระบุได้มากกว่า 1 ข้อ)

☐ สูญเสียบุคคลอันเป็นที่รัก.....

☐ ปั ญหาเศรษฐกิจ.....

☐ ประสบภัยพิบัติ.....

☐ ปั ญหาที่อยู่อาศัย.....

☐ ออกจากงาน/เกษียณ.....

☐ ถูกกระทำรุนแรง .....

☐ ป่ วยเป็นโรคร้ายแรง .....

☐ ดูแลคนในบ้านที่เป็นโรคเรื้อรัง/โรคจิต.....

☐ อื่นๆ .....

ส่วนที่ 2 แบบประเมินความเข้มแข็งและความสามารถของผู้สูงอายุไทยในการปรับตัวสู่ภาวะปกติเมื่อประสบความทุกข์ยากในชีวิตเป็นแบบเลือกตอบ มีทั้งหมด 50 ข้อ

คำชี้แจง แบบสอบถามชุดนี้ มีวัตถุประสงค์เพื่อประเมินความเข้มแข็งและความสามารถของท่านในการปรับตัวสู่ภาวะปกติเมื่อประสบความทุกข์ยากในชีวิต ซึ่งประกอบด้วยข้อคำถาม 50 ข้อ แบ่งเป็น 3 ด้าน ได้แก่ 1) ความเข้มแข็งของร่างกายและความมั่ นคงด้านจิตใจ 2) ความมั่ นคงของแรงสนับสนุนทางสังคม และจิตวิญญาณ และ 3) ความสามารถด้านสังคม และการจัดการกับปั ญหา ขอให้ท่านอ่านและพิจารณาแต่ละข้อคำถามอย่างละเอียดว่าตรงกับตัวท่านมากน้อยเพียงใด แล้วทำเครื่องหมาย ✓ ลงในช่องว่างที่ตรงกับตัวท่านมากที่สุดเพียงคำตอบเดียว โดยใช้เกณฑ์ในการพิจารณาต่อไปนี้

ไม่เห็นด้วย	หมายถึง	ข้อความนั้นไม่ตรงกับตัวท่านเลย
เห็นด้วยเล็กน้อย	หมายถึง	ข้อความนั้นตรงกับตัวท่านบางส่วน
เห็นด้วยมาก	หมายถึง	ข้อความนั้นตรงกับตัวท่านค่อนข้างมาก
เห็นด้วยมากที่สุด	หมายถึง	ข้อความนั้นตรงกับตัวท่านมากที่สุด

ข้อคำถาม	ไม่เห็นด้วย	เห็นด้วยเล็กน้อย	เห็นด้วยมาก	เห็นด้วยมากที่สุด
1. ฉันเป็นผู้ที่มีสุขภาพแข็งแรง				
2. ฉันดูแลตัวเองให้มีสุขภาพดีอยู่เสมอ				
3. ท่านพอใจในสุขภาพที่เป็นอยู่ทุกวันนี้				
4. ฉันเป็นคนที่มีความอดทนต่อปัญหาที่เกิดขึ้นในชีวิตได้				
5. ฉันมั่นใจว่าจะแก้ไขปัญหาที่เกิดขึ้นในชีวิตได้				
6. ฉันรู้สึกหมดอาลัยตายอยากกับชีวิตปัจจุบัน				
7. แม้มีสิ่งเลวร้ายเกิดขึ้นในชีวิตฉันก็หวังว่าสักวันหนึ่งจะดีขึ้น				
8. ฉันคิดว่าความทุกข์ที่เกิดขึ้นกับตัวฉันเป็นเรื่องปกติของชีวิต				
9. ฉันพบว่ามีสิ่งดีๆเกิดขึ้นท่ามกลางความทุกข์ยากของชีวิต				
10. ฉันสามารถยิ้มได้แม้ใจจะเป็นทุกข์				
11. ฉันคิดว่าความทุกข์ยากที่ผ่านมาทำให้ชีวิตของฉันแข็งแกร่งขึ้น				
12. ฉันรู้สึกท้อแท้ต่ออุปสรรคที่เกิดขึ้นในชีวิต				
13. ฉันรู้สึกว่าชีวิตของฉันไร้ค่า				
14. ฉันรู้สึกภูมิใจในตัวเองเสมอ				
15.ไม่ว่าจะมีปัญหาใดๆเกิดขึ้น ฉันตั้งใจจะกลับไปใช้ชีวิตตามปกติให้เร็วที่สุด				
16. ฉันมีโอกาสได้พูดคุยกับผู้อื่นบ่อยๆ				
17. ฉันคอยอาสาช่วยเหลือผู้อื่นเสมอ				

18. ฉันได้เข้าร่วมทำกิจกรรมกับกลุ่มคนอื่นๆ				
19. ฉันรู้สึกพึงพอใจกับชีวิตทุกวันนี้				
20. ฉันได้ปฏิบัติธรรมหรือทำบุญอยู่เสมอ				
21. ฉันเอาชนะความทุกข์ยากที่ผ่านมาได้ดีเสมอ				
ข้อคำถาม	ไม่เห็นด้วย	เห็นด้วยเล็กน้อย	เห็นด้วยมาก	เห็นด้วยมากที่สุด
22. ฉันได้อธิษฐานอยู่เสมอเพื่อขอให้ชีวิตเป็นสุข				
23. ฉันมีคนสนิทที่ยังมีการติดต่อไปมาหาสู่กันอยู่เสมอ				
24. เมื่อมีความทุกข์เกิดขึ้นในชีวิตฉันมีเพื่อนช่วยคลายทุกข์				
25. ฉันมั่นใจว่าจะมีคนช่วยเหลือฉันเสมอเมื่อมีความยากลำบากในชีวิต				
26. ฉันมั่นใจว่าในยามลำบากจะมีหน่วยงาน/หรือองค์กรต่างๆให้การช่วยเหลือฉันเสมอ				
27. ฉันคิดว่าฉันมีชีวิตที่ดีทุกวันนี้ ส่วนหนึ่งเกิดจากการได้ช่วยเหลือผู้อื่นในอดีต				
28. ฉันคิดว่าการเข้าร่วมในกลุ่มเพื่อนๆทำให้มีคนคอยช่วยเหลือฉันมากขึ้น				
29. ฉันมีสิ่งยึดเหนี่ยวจิตใจ				
30. ฉันคิดอยู่เสมอว่าสิ่งศักดิ์สิทธิ์จะช่วยเหลือในยามที่ฉันทุกข์ยากได้				
31. ฉันคิดว่าความทุกข์ยากที่เกิดขึ้นในชีวิตจะช่วยลดกรรมเก่าของฉันได้				
32. ฉันคิดว่าทุกคนมีกรรมเป็นของตนเองรวมทั้งตัวฉันด้วย **				
33. ฉันพยายามทำบุญเพื่อให้มีชีวิตที่ดีทั้งชาตินี้ และชาติหน้า				
34. ฉันคิดว่าการมีชีวิตอยู่ได้จนถึงวันนี้คือเป็นกำไรของชีวิต				
35. ฉันต้องใช้เวลานานในการทำใจยอมรับความทุกข์ยากที่เกิดขึ้นในชีวิต				
36. ฉันมักจะหมดแรงจนไม่สามารถทำอะไรได้ เมื่อมีเรื่องทุกข์ใจเกิดขึ้น				
37. ฉันคิดเสมอว่าปัญหาที่เกิดกับฉันเลวร้ายกว่าของผู้อื่น **				

38. เมื่อมีทุกข์ฉันมีวิธีผ่อนคลายทุกข์ให้กับตัวเองได้				
39. เมื่อมีทุกข์ฉันได้พูดให้กำลังใจตัวเองเสมอ				
40. ท่านตั้งสติได้เร็วเมื่อมีเหตุการณ์เลวร้ายเกิดขึ้นในชีวิต				
41. ฉันได้บทเรียนจากอดีตมาใช้ในแก้ปัญหาชีวิตเสมอ				
42. ฉันคิดทำร้ายตัวเองเมื่อรู้สึกไม่มีทางออกให้กับชีวิต				
ข้อคำถาม	ไม่เห็นด้วย	เห็นด้วยเล็กน้อย	เห็นด้วยมาก	เห็นด้วยมากที่สุด
43. ฉันพยายามหาทางแก้ไขปัญหาในชีวิตเพื่อให้อยู่ได้เหมือนคนอื่นๆ				
44. ฉันปล่อยวางได้เมื่อต้องเข้าร่วมกิจกรรมกับผู้อื่น				
45. ฉันไม่รู้สึกลำบากใจเมื่อต้องขอความช่วยเหลือจากผู้อื่น				
46. ฉันคิดว่าคำแนะนำของผู้อื่นเป็นประโยชน์ต่อการแก้ปัญหาของฉัน				
47. ฉันใช้ศาสนาเป็นที่พึ่งทางใจเมื่อมีทุกข์**				
48. ฉันใช้หลักธรรมะช่วยในการแก้ไขปัญหาที่เกิดขึ้กับชีวิต				
49. ฉันนอนหลับได้ทุกครั้งแม้มีเรื่องทุกข์ใจ				
50. ฉันชอบระบายความทุกข์ให้ผู้อื่นฟัง				

** ถูกตัดออกเนื่องจากมีความหมายซ้ำ

APPENDIX E

CONTENT VALIDITY FORM

Content Validity Form

Instructions: The content validity form was provided to assess the quality of the instrument of the Thai Elderly Resilience Scale: TER scale. The objective and content relevancy including the clarity and conciseness of the item are need.

Please determines all items and check (✓) in the column related to your opinion and give suggestions or comment for improvement in the other comments column. The criterion of the opinion was described as follow:

Relevancy 1 = not relevant 2 = somewhat relevant,
3 = quite relevant 4 = very relevant

Clarity yes = clear no = Unclear

Conciseness yes = concise no = redundant

Item	Relevancy				Clarity		Conciseness		Other comments
	1	2	3	4	Yes	No	Yes	No	

แบบให้ข้อคิดเห็นเครื่องมือวิจัย

เอกสารชุดนี้เป็นแบบให้ข้อคิดเห็นเครื่องมือวิจัย ผู้วิจัยขออนุเคราะห์จากท่านให้แสดงความคิดเห็นในความสอดคล้อง ความซ้ำซ้อน และความชัดเจนของข้อคำถาม โดยการทำเครื่องหมาย✓ ลงในช่องที่ตรงกับความคิดเห็นของท่านในแต่ละประเด็นและเติมข้อความในช่องข้อคิดเห็นในการปรับปรุงข้อคำถาม หรือข้อเสนอแนะอื่นๆ ตามรายละเอียดในเอกสารที่แนบมา

แบบให้ข้อคิดเห็นเครื่องมือวิจัย

ข้อคำถาม	ความสอดคล้องกับวัตถุประสงค์การวิจัย		ความสอดคล้องกับเนื้อหาที่ต้องการวัด		ความซ้ำซ้อนข้อคำถาม		ความชัดเจนของข้อคำถาม		ข้อคิดเห็นในการปรับปรุง
	สอดคล้อง	ไม่สอดคล้อง	สอดคล้อง	ไม่สอดคล้อง	ซ้ำซ้อน	ไม่ซ้ำซ้อน	ชัดเจน	ไม่ชัดเจน	

APPENDIX F

ITEM CORRELATIONS OF 47- ITEM TER SCALE

IN PRE - TESTING

Table 24

Item and subscale correlations of the 47 item - TER scale in pre - testing (n = 30)

Item no.	Scale mean if item deleted	Scale variance if item deleted	Corrected item –total correlations	Alphas if item deleted
1	157.23	244.18	0.51	0.94
2	157.26	241.92	0.54	0.94
3	157.20	239.88	0.63	0.94
4	156.86	248.53	0.33	0.94
5	157.06	239.71	0.68	0.94
6	157.03	249.61	0.14*	0.95
7	157.40	249.00	0.17*	0.95
8	156.80	252.78	0.04*	0.95
9	157.06	247.58	0.30	0.94
10	157.30	241.87	0.60	0.94
11	157.23	239.84	0.58	0.94
12	156.96	243.27	0.56	0.94
13	156.76	247.63	0.47	0.94
14	157.13	245.70	0.41	0.94
15	156.73	247.78	0.39	0.94
16	157.06	240.06	0.73	0.94
17	156.96	240.86	0.71	0.94
18	157.06	240.27	0.72	0.94
19	157.13	239.22	0.65	0.94
20	157.23	238.52	0.70	0.94
21	157.36	237.68	0.60	0.94
22	157.06	247.02	0.24*	0.94
23	157.03	239.41	0.64	0.94
24	157.36	240.10	0.66	0.94
25	157.20	246.02	0.36	0.94
26	157.23	248.32	0.27*	0.94

* Item to total correlation less than 0.3

Table (*continue)*

Item no.	Scale mean if item deleted	Scale variance if item deleted	Corrected item –total correlation	Alpha if item deleted
27	157.50	234.81	0.77	0.94
28	156.93	244.96	0.43	0.94
29	157.20	249.33	0.14*	0.95
30	157.26	241.78	0.66	0.94
31	157.93	244.20	0.42	0.94
32	157.30	241.45	0.57	0.94
33	157.20	239.33	0.65	0.94
34	157.10	241.12	0.76	0.94
35	157.20	241.47	0.54	0.94
36	157.16	239.72	0.68	0.94
37	157.33	244.98	0.39	0.94
38	157.13	247.29	0.32	0.94
39	157.10	239.19	0.71	0.94
40	157.40	242.31	0.37	0.94
41	157.56	238.32	0.71	0.94
42	157.40	235.90	0.68	0.94
43	157.03	239.75	0.68	0.94
44	157.36	249.41	0.14*	0.94
45	156.96	247.27	0.38	0.94
46	157.30	238.70	0.66	0.94
47	157.40	241.97	0.46	0.94
	Total alpha		0.94	

* Item to total correlation less than 0.3

Table 25

Item correlation of "*I AM"* subscale *in pre - testing (n = 30)*

Item no.	Corrected Item - total Correlations	Alphas if item deleted
1	0.63	0.83
2	0.52	0.83
3	0.59	0.84
4	0.26*	0.85
5	0.69	0.83
6	0.11*	0.86
7	0.29*	0.85
8	0.15*	0.85
9	0.30	0.85
10	0.46	0.84
11	0.47	0.84
12	0.54	0.84
13	0.49	0.84
14	0.33	0.85
15	0.48	0.84
16	0.66	0.83
17	0.68	0.83
18	0.60	0.84
Total alpha	0.84	

* Item total correlations less than 0.3

Table 26

Item correlations of "*I HAVE"* subscale *in pre - testing (n = 30)*

Item no.	Corrected Item - total Correlations	Alphas if item deleted
19	0.51	0.83
20	0.57	0.83
21	0.57	0.83
22	0.33	0.85
23	0.60	0.83
24	0.67	0.82
25	0.43	0.84
26	0.40	0.84
27	0.75	0.81
28	0.42	0.84
29	0.18	0.86
30	0.76	0.82
31	0.42	0.84
	Total alpha 0.84	

* Item total correlations less than 0.3

Table 27

Item correlations of "*I CAN"* subscale *in pre- testing (n = 30)*

Item no.	Corrected Item - total Correlation	Alphas if item deleted
32	0.61	0.87
33	0.65	0.87
34	0.74	0.86
35	0.58	0.87
36	0.56	0.87
37	0.35	0.88
38	0.42	0.84
39	0.18	0.86
40	0.76	0.82
41	0.66	0.87
42	0.64	0.87
43	0.69	0.86
44	0.16*	0.89
45	0.40	0.87
46	0.61	0.87
47	0.49	0.87
Total alpha	0.88	

* Item total correlations less than 0.3

APPENDIX G

ITEM CORRELATIONS OF 47- ITEM TER SCALE

IN FIELD TESTING

Table 28

Item and subscale correlations of the 47 item TER scale in field testing (n= 517)

Item no.	Scale mean if item deleted	Scale variance if item deleted	Corrected item –total correlations	Alphas if item deleted
1	148.11	297.82	0.40	0.93
2	147.98	294.75	0.47	0.93
3	147.99	294.75	0.47	0.93
4	147.60	298.19	0.43	0.93
5	147.86	239.02	0.57	0.93
6	147.89	293.64	0.41	0.93
7	148.11	293.99	0.41	0.93
8	147.74	295.26	0.41	0.93
9	147.84	298.42	0.34	0.93
10	148.11	296.20	0.42	0.93
11	148.02	239.89	0.49	0.93
12	147.97	293.55	0.47	0.93
13	147.66	293.79	0.59	0.93
14	147.93	294.78	0.45	0.93
15	147.41	299.24	0.38	0.93
16	247.65	295.34	0.53	0.93
17	147.67	294.91	0.56	0.93
18	147.80	292.95	0.58	0.93
19	147.82	292.57	0.58	0.93
20	147.91	292.30	0.56	0.93
21	148.08	290.23	0.58	0.93
22	147.82	294.76	0.42	0.93
23	147.97	290.79	0.55	0.93
24	148.16	292.32	0.51	0.93
25	147.87	293.75	0.46	0.93
26	148.26	294.58	0.40	0.93
27	148.21	290.90	0.58	0.93

Table (continue)

Item no.	Scale mean if item deleted	Scale variance if item deleted	Corrected item –total correlations	Alphas if item deleted
28	147.76	293.98	0.52	0.93
29	147.97	297.59	0.29*	0.93
30	147.97	292.53	0.61	0.93
31	148.56	296.26	0.29*	0.93
32	148.13	293.78	0.50	0.93
33	148.03	293.22	0.47	0.93
34	147.94	293.16	0.58	0.93
35	147.88	296.11	0.45	0.93
36	148.04	292.57	0.51	0.93
37	148.27	292.22	0.46	0.93
38	148.11	292.67	0.54	0.93
39	147.95	290.45	0.54	0.93
40	148.03	298.30	0.29*	0.93
41	148.39	292.13	0.48	0.93
42	148.22	294.92	0.43	0.93
43	147.83	294. 82	0.48	0.93
44	148.41	298.86	0.21*	0.93
45	147.94	295.29	0.39	0.93
46	148.01	293.37	0.51	0.93
47	148.54	296.37	0.29*	0.93
	Total alpha		0.93	

* Deleted items (item - total correlation ≤ 0.30)

APPENDIX H

FACTOR LOADING OF EACH ITEM AND COMPONENT OF THE 24- ITEM TER SCALE

Table 29

Factor loading of each item and component of the 24 - item TER scale

Item no.	Component				
	1	2	3	4	5
2	0.69				
21	0.68				
11	0.66				
19	0.60	0.32			
20	0.57	0.30			
18	0.55	0.32	0.36		
8		0.65			
4		0.63			
5		0.60			0.32
17		0.54			
13		0.53	0.40		
25			0.71		
26			0.70		
24			0.62		
27	0.44		0.50		
22				0.70	
23				0.67	
28				0.66	
43				0.63	
36					0.72
38					0.60
34		0.32			0.60
35		0.40			0.52
37			0.47		0.50

Table 30

Total variance explained of the 24 item- TER scale

Factor	Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variances	Cumulative %	Total	% of Variances	Cumulative %
1	7.60	31.68	31.68	3.21	13.37	13.37
2	1.60	6.64	38.32	2.56	10.68	24.05
3	1.37	5.72	44.05	2.50	10.43	34.48
4	1.51	3.60	49.67	2.44	10.17	44.68
5	1.17	4.89	54.56	2.38	9.91	54.56

APPENDIX I

CORRELATIONS & ALPHA COEFFICIENTS OF ALL ITEMS AND SUB SCALES OF THE 24 ITEM - TER SCALE

Table 31

Item and total correlation to and Cronbach's alpha coefficients of the 24 item- TER scale

Item no	Corrected Item-total correlations	Alphas if item delete
2	0.49	0.90
4	0.40	0.90
5	0.54	0.90
8	0.39	0.90
11	0.47	0.90
13	0.58	0.89
17	0.56	0.89
18	0.57	0.89
19	0.59	0.89
20	0.56	0.89
21	0.56	0.89
22	0.42	0.90
23	0.54	0.89
24	0.53	0.89
25	0.49	0.89
26	0.40	0.90
27	0.57	0.89
28	0.53	0.89
34	0.55	0.89
35	0.42	0.90
36	0.49	0.89
37	0.45	0.90
38	0.53	0.89
43	0.46	0.89
	Total 0.90	

Table 32

Item and total correlation and Cronbach's alpha coefficients of the 24 item - TER scale: Factor I

Item no.	Corrected Item-total correlation	Alpha if item delete
2	0.50	0.79
11	0.48	0.79
18	0.58	0.77
19	0.61	0.76
20	0.58	0.77
21	0.62	0.76
Total	0.80	

Table 33

Item and total correlation and Cronbach's alpha coefficients of the 24 item - TER scale: Factor II

Item no	Corrected Item-total correlations	Alphas if item delete
8	0.46	0.71
4	0.47	0.70
5	0.53	0.67
13	054	0.67
17	0.69	0.69
Total	0.74	

Table 34

Item and total correlation and Cronbach's alpha coefficients of the 24 item - TER scale: Factor III

Item no	Corrected Item-total correlations	Alphas if item delete
24	0.52	0.66
25	0.56	0.64
26	0.49	0.68
27	0.48	0.68
	Total 0.72	

Table 35

Item and total correlation and Cronbach's alpha coefficients of the 24 item - TER scale: Factor IV

Item no	Corrected Item-total correlations	Alphas if item delete
22	0.51	0.69
23	0.55	0.66
28	0.57	0.66
43	0.49	0.70
	Total 0.73	

Table 36

Item and total correlation and Cronbach's alpha coefficients of the 24 item - TER scale: Factor V

Item no	Corrected Item-total correlations	Alphas if item delete
34	0.54	0.65
35	0.39	0.70
36	0.56	0.63
37	0.40	0.71
38	0.53	0.65
Total	0.72	

APPENDIX J

FINAL DRAFT OF THE TER SCALE

<u>คำชี้ แจง</u> แบบสอบถามนี้ ประกอบด้วย2 ส่วน คือ 1) ข้อมูลทั่วไป และ2) แบบประเมินพลังสุขภาพจิตของผู้สูงอายุไทยในการเผชิญเหตุการณ์ความทุกข์ในชีวิต

"เหตุการณ์ความทุกข์ในชีวิต" หมายถึง สภาวการณ์อันเลวร้าย หรือเหตุการณ์ที่ก่อให้เกิดความทุกข์ในชีวิตของท่าน ซึ่งอาจเป็นได้ทั้ง สภาวการณ์ที่มีเหตุจากภายนอกตัวท่าน เช่น การประสบภัยพิบัติทางธรรมชาติ หรือภัยที่เกิดจากการกระทำของมนุษย์ และสภาวการณ์ที่เกิดขึ้นจากตัวท่านเองและครอบครัว เช่น การสูญเสียบุคคลอันเป็นที่รัก มีปัญหาทางเศรษฐกิจที่รุนแรง การเจ็บป่วยด้วยโรคร้ายแรง การถูกทำร้าย หรือกระทำรุนแรง และการไร้ที่อยู่อาศัย เป็นต้น

ส่วนที่ 1 ข้อมูลทั่วไป เป็นข้อมูลเกี่ยวกับตัวท่าน ประกอบด้วย เพศ อายุ สถานภาพสมรส สถานภาพการอยู่อาศัย ระดับการศึกษา อาชีพ รายได้ แหล่งที่มาของรายได้ สุขภาพกาย สุขภาพจิต ประวัติการรักษาด้านสุขภาพจิต และประสบการณ์การเผชิญเหตุการณ์ความทุกข์ในชีวิต โดยเป็นแบบเลือกตอบและเติมคำ จำนวน 14 ข้อ **(ท่านมีอิสระในการให้ข้อมูลส่วนนี้ตามความสมัครใจ)**

<u>คำชี้ แจง</u> กรุณาตอบแบบสอบถามนี้ โดยทำเครื่องหมาย× ลงใน ☐ หน้าข้อความหรือเติมข้อความลงในช่องว่างให้สมบูรณ์และตรงตามความเป็นจริงเกี่ยวกับตัวท่าน

1. เพศ ☐ 1 ชาย ☐ 2 หญิง
2. อายุ..... ปี (มากกว่า 6 เดือน คิดเป็น 1 ปี)
3. สถานภาพสมรส
   ☐ 1 โสด ☐ 2 สมรส ☐ 3 แยกกันอยู่
   ☐ 4 หม้าย ☐ 5 หย่า ☐ 6 อื่นๆ.....
4. ลักษณะการอยู่อาศัย
   ☐ 1 อยู่คนเดียว ☐ 2 อยู่กับคู่สมรส2 คน ☐ 3 อยู่กับคู่สมรส และบุตรหลาน
   ☐ 4 อยู่กับพ่อแม่บุตรหลาน หรือญาติ..... ☐ 5 อยู่สถานสงเคราะห์
5. ระดับการศึกษา
   ☐ 1 ไม่ได้เรียน ☐ 2 น้อยกว่าประถม 4 ☐ 3 ประถม 4 – 6 ☐ 4 มัธยมศึกษา
   ☐ 5 ปวช. / ปวส. ☐ 6 ปริญญาตรี ☐ 7 สูงกว่าปริญญาตรี
6. อาชีพ
   ☐ 1 ไม่ได้ทำงาน ☐ 2 รับจ้าง ☐ 3 ข้าราชการ / รัฐวิสาหกิจ (เกษียณอายุ)
   ☐ 4 เกษตรกรรม ☐ 5 ขายของ ☐ 6 อื่นๆ……..
7. รายได้ ☐ 1 ไม่มีรายได้ .
   ☐ 2 มีรายได้ (จำนวน)..... บาทต่อเดือน รวมเงินช่วยเหลือจากรัฐบาล

8. แหล่งที่มาของรายได้ (ตอบได้มากกว่า 1 ข้อ)

☐ 1 คู่สมรส /บุตรหลาน /ญาติพี่น้อง ☐ 2 การประกอบอาชีพ ☐ 3 เงินช่วยเหลือจากรัฐบาล

☐ 4 ทรัพย์สมบัติส่วนตัว(ค่าเช่าจากสวน ที่นา ดอกเบี้ ย บ้าน ☐ 5 เงินบำนาญ

☐ 6 อื่นๆ .....

9. สุขภาพกายของท่าน ☐ 1 แข็งแรงดี (ไม่มีโรคประจำตัว)

☐ 2 ปานกลาง (มีโรคประจำตัวคือ).....

☐ 3 ไม่แข็งแรง (มีโรคประจำตัวคือ).....

10. สุขภาพจิตของท่าน ☐ 1 ดี

☐ 2 ปานกลาง (ระบุอาการ).....☐ 3 ไมดี (ระบุอาการ).....

11. ท่านเคยเข้ารับการรักษาด้วยปัญหาสุขภาพจิต เช่น เครียด นอนไม่หลับ หงุดหงิด ซึมเศร้าฯลฯ หรือไม่

☐ 1 ไม่เคย ☐ 2 นานๆครั้ ง ☐ 3 บ่อยครั้ ง ด้วยอาการ.....

12. กิจกรรมในชีวิตประจำวันที่ท่านทำแล้วสบายใจคือ(ตอบได้มากกว่า 1 ข้อ)

☐ 1 การพบปะพูดคุยกับบุตรหลาน ☐ 2 การเข้าร่วมกิจกรรมชมรมผู้สูงอายุ

☐ 3 การทำงานบ้าน /งานอดิเรก/ทำงาน ☐ 4 การดูทีวี ฟังเทป

☐ 5 การไปวัด ทำบุญ หรือปฏิบัติธรรม ☐ 6 การพูดคุยกับเพื่อนบ้าน

☐ 6 การเลี้ ยงหลาน ☐ 7 การเป็นอาสาสมัคร

13. กิจกรรมที่ทำให้ท่านได้พบปะพูดคุย และทำกิจกรรมร่วมกับคนอื่นนอกบ้าน(ตอบได้มากกว่า 1 ข้อ)

☐ 1 การไปวัด ☐ 2 การร่วมงานบุญบ้านญาติ ☐ 3 กิจกรรมชมรมผู้สูงอายุ

☐ 4 การออกไปนั่งคุยกับเพื่อน/เพื่อนมานั่งคุยที่บ้าน ☐ 5 การเป็นอาสาสมัคร

14. ขอให้ท่านนึกถึงเหตุการณ์ที่เกิดขึ้ นกับชีวิตท่าน และทำให้ท่านเกิดความทุกข์มากที่สุด

14.1

เหตุการณ์.....

14.2

เหตุการณ์.....

14.3

เหตุการณ์.....

14.4 หรือมีเหตุการณ์เหล่านี้ เกิดขึ้ นกับชีวิตของท่านบ้างไหม ได้แก่

☐	1	คนในครอบครัวเสียชีวิตคือ.....เมื่อ พ.ศ. ……
☐	2	มีปัญหาเศรษฐกิจคือ.....เมื่อ พ.ศ. ……
☐	3	ประสบภัยพิบัติคือ.....เมื่อ พ.ศ. ……
☐	4	มีปัญหาเกี่ยวกับที่อยู่อาศัยคือ.....เมื่อ พ.ศ..... ……
☐	5	ออกจากงาน/เกษียณราชการ……เมื่อ พ.ศ. ……
☐	6	ป่วยเป็นโรคร้ายแรง /มีโรคประจำตัว/อุบัติเหตุรุนแรง คือ.....
☐	7	ดูแลคนในบ้านที่เป็นโรคเรื้ อรัง/โรคจิตคือ.....
☐	8	ถูกกระทำรุนแรงคือ ……
☐	9	ทะเลาะ/ขัดแย้งกับคนในบ้านบ่อยๆ.....
☐	10	อื่นๆ.....

ส่วนที่ 2 แบบประเมินพลังสุขภาพจิตของผู้ สูงอายุไทย ในการเผชิญเหตุการณ์ความทุกข์ในชีวิต

คำชี้ แจง แบบสอบถามชุดนี้ มีวัตถุประสงค์เพื่อประเมินพลังสุขภาพจิตของท่านในการเผชิญเหตุการณ์ความทุกข์ในชีวิต ซึ่งประกอบด้วยข้อคำถาม 24 ข้อ

ขอให้ท่านอ่านและพิจารณาว่า “แต่ละข้อความ” สามารถอธิบายลักษณะเกี่ยวกับตัวท่าน ได้ตรงตามความเป็นจริงมากน้อยเพียงใด แล้วทำเครื่องหมาย × ลงบน ☐ หน้าข้อความที่ตรงกับตัวท่านมากที่สุด โดยพิจารณาตามเกณฑ์ ดังนี้

เห็นด้วยมาก	หมายถึง	ข้อความนั้ นเป็นจริง หรือตรงกับตัวท่านมากที่สุ
เห็นด้วยปานกลาง	หมายถึง	ข้อความนั้ นเป็นจริง หรือตรงกับตัวท่านพอประมา
เห็นด้วยน้อย	หมายถึง	ข้อความนั้ นเป็นจริง หรือตรงกับตัท่านค่อนข้างน้อย
ไม่เห็นด้วยเลย	หมายถึง	ข้อความนั้ นไม่เป็นจริง หรือไม่ตรงกับตัวท่านเ

ข้อ	ข้อความ
1	ฉันเป็นคนที่ชอบพูดคุยกับผู้อื่น ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
2	ฉันเป็นคนที่มีความอดทนต่อความยากลำบากได้ดี ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
3	ฉันมั่นใจว่าจะสามารถแก้ไขทุกปัญหาที่อาจเกิดขึ้นในชีวิตได้เสม ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
4	ฉันรู้สึกว่าการมีชีวิตอยู่ของฉันทุกวันนี้ มีคุณค่
	☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
5	.....
6	ฉันรู้สึกภาคภูมิใจในชีวิต ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
7	.....
8	.....
9	.....
10	ฉันมีโอกาสได้ช่วยเหลือคนอื่นอยู่เสมอ ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
11	.....
12	ฉันมีโอกาสได้อธิษฐาน หรือขอพรให้สิ่งดีๆเกิดขึ้นกับชีวิตเสม
	☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
13	.....
23	ฉันสามารถนำสิ่งที่ได้เรียนรู้จากในอดีตมาใช้ในชีวิต หรือแก้ไขปัญหาปัจจุบันไ ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
24	ฉันนำหลักคำสอนทางศาสนา หรือในสิ่งที่เคารพนับถือมาปฏิบัติเมื่อมีความทุกข์ ☐ เห็นด้วยมาก ☐ เห็นด้วยปานกลาง ☐ เห็นด้วยน้อย ☐ ไม่เห็นด้วยเลย
	.....
	.....
	.....

APPENDIX K

LIST OF EXPERTS

LIST OF CONTENT VALIDITY EXPERTS

Associate Professor Dr. Wandee Suttharangsee, RN.

Department of Psychiatric Nursing, Faculty of Nursing, Prince of Songkla University, Songkhla, Thailand

Assistant Professor Dr. Nidtaya Takviriyanun, RN.

Faculty of Nursing, Thammasat University, Bangkok, Thailand

Dr. Pattama Sirive, MD, Psychiatrist

Somdetchaopraya Institute, Bangkok, Thailand

Associate Professor Dr. Jiraporn Kespichayawattana

Faculty of Nursing, Chulalongkorn University, Bangkok, Thailand

Mrs. Wanida Chaninthayuthawong, Senior psychologist

Department of Psychology, Rajanukul Institute, Bangkok, Thailand

Dr. Clinton E. Lambert, RN, CS, FAAN, USA

Pacific Rim International Journal of Nursing Research Editor

VITAE

Name Mrs. Sonthaya Maneerat

Student ID 5110430006

Educational Attainment

Degree	Name of Institution	Year of Graduation
Bachelor of Science (Nursing and Midwifery)	Ratchaburi Nursing College	1987
Master of Science (Mental health and psychiatric nursing)	Prince of Songkla University	2006

Scholarship Awards during Enrolment

1. The dissertation grant, Faculty of Graduate School, Prince of Songkla University
2. The dissertation grant, Thailand Nursing and Midwifery Council

Work Position and Address

Psychiatric nurse, Suansaranrom Psychiatric Hospital, Surathani, Thailand

List of Publications and Proceedings

Manneerat, S., Isaramalai, S. & Petcharat, B. (2006). *Caregivers' Capabilities in Caring for Children with Attention- Deficit/Hyperactivity Disorder*. Paper presented at the 10 Graduate Research Conference, Prince of Songkla University, Surathani campus, Thailand.

Manneerat, S., & Isaramalai, S. (2010). *Pathways toward Resilience among Elderly in Tsunami-Affected Area, Thailand.* Paper presented at the 10th ISQOLS International Conference: Understanding Quality of Life and Building a Happier Tomorrow, Bangkok, Thailand, December, 8 -11, 2010.

Maneerat, S., Isaramalai, S., & Boonyasopun, U. (2011). *Resilience as a self care for bouncing- back after life adversity in Thai elderly.* Paper presented at the 2nd International Conference on Prevention & Management of Chronic Conditions and the 11th World Congress of Self-Care Deficit Nursing Theory, Bangkok, Thailand, March, 23-25, 2011

Maneerat, S. (2007). Innovation of Enhancing IQ EQ for children in Psychiatric Hospital: Suandex – Learning Center for Child & Family. Paper presented at the 6th Mental Health International Conference (Proceeding), Bangkok.

Sukpakdee, U., Veerakiat, S., Maneerat, S., Tureerat, U., Panpech, S., Punpratum, S., Taikerd, S., & Suttharangsee, W. (2009). How to leave the psychiatric persons living in community? *Songklanagarind Journal of Nursing, 29*, 63 -67.