

# ความผาสุกทางใจของผู้สูงอายุโรคเรื้อรังในชุมชน Psychological Well-being among Community-Dwelling Older Adults Living with Chronic Illness

นิพนธ์ต้นฉบับ

Original Article

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## บทคัดย่อ

**วัตถุประสงค์:** เพื่อศึกษาระดับความผาสุกทางใจของผู้สูงอายุโรคเรื้อรังในชุมชนและปัจจัยที่มีผลต่อความผาสุกทางใจดังกล่าว **วิธีการศึกษา:** การวิจัยแบบหาความสัมพันธ์เชิงทำนายนี้มีกลุ่มตัวอย่าง คือ ผู้สูงอายุที่มีความเจ็บป่วยด้วยโรคเรื้อรังในชุมชน จ.ระยอง จำนวน 148 คน ซึ่งได้มาด้วยการสุ่มอย่างง่าย เครื่องมือรวบรวมข้อมูลประกอบด้วยแบบสัมภาษณ์ข้อมูลส่วนบุคคล การมองโลกในแง่ดี ความพึงพอใจในชีวิต การรับรู้ความสามารถของตนเอง การสนับสนุนทางสังคม และความผาสุกทางใจ วิเคราะห์ข้อมูลส่วนบุคคลและความผาสุกทางใจของกลุ่มตัวอย่างโดยใช้สถิติเชิงพรรณนา (Descriptive statistics) ได้แก่ ความถี่ ร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และวิเคราะห์อำนาจการทำนายของปัจจัยต่อความผาสุกทางใจของกลุ่มตัวอย่างด้วยสถิติถดถอยพหุคูณแบบขั้นตอน **ผลการศึกษา:** พบว่ากลุ่มตัวอย่างมีความผาสุกทางใจโดยรวมอยู่ในระดับปานกลาง ( $M = 50.95, SD = 5.95$ ) เมื่อวิเคราะห์อำนาจการทำนายพบว่าการรับรู้ความสามารถของตนเอง ( $\beta = 0.430$ ) การมองโลกในแง่ดี ( $\beta = 0.264$ ) และการสนับสนุนทางสังคม ( $\beta = 0.169$ ) สามารถร่วมทำนายความผาสุกทางใจของกลุ่มตัวอย่างได้ร้อยละ 37.9 ( $R^2 = 0.379, P\text{-value} < 0.001$ ) **สรุป:** การรับรู้ความสามารถของตนเอง การมองโลกในแง่ดี และการสนับสนุนทางสังคมสามารถร่วมทำนายความผาสุกทางใจของผู้สูงอายุโรคเรื้อรังได้ พยาบาลและบุคลากรที่เกี่ยวข้องสามารถนำผลการวิจัยไปใช้เป็นแนวทางในการพัฒนาโปรแกรมหรือกิจกรรมส่งเสริมให้ผู้สูงอายุโรคเรื้อรังมีความผาสุกทางใจมากขึ้น โดยเสริมการรับรู้ความสามารถของตนเอง การมองโลกในแง่ดี และการสนับสนุนทางสังคม

**คำสำคัญ:** ความผาสุกทางใจ, ผู้สูงอายุโรคเรื้อรังในชุมชน, การมองโลกในแง่ดี, ความพึงพอใจในชีวิต, การรับรู้ความสามารถของตนเอง, การสนับสนุนทางสังคม

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## Abstract

**Objective:** To identify level of and factors affecting psychological well-being among community-dwelling older adults living with chronic illness. **Method:** In this predictive correlation research, 148 community-dwelling older adults living with chronic illness in Rayong province were recruited using the simple random technique. Research instruments included a questionnaire to gather data for demographic information, optimism, life satisfaction, perceived self-efficacy, social support, and psychological well-being. Descriptive statistics and stepwise multiple regression analysis were used to analyze data. **Results:** Psychological well-being was at a moderate level ( $M = 50.95, SD = 5.95$ ). The significant predictors of psychological well-being were perceived self-efficacy ( $\beta = 0.430$ ), optimism ( $\beta = 0.264$ ), and social support ( $\beta = 0.169$ ). These predictors could together explain 37.9% of variance in psychological well-being ( $R^2 = 0.379, P\text{-value} < 0.001$ ). **Conclusion:** Nurses and other healthcare providers could apply these results to develop interventions or programs aiming at promoting psychological well-being among community-dwelling older adults living with chronic illness by focusing on perceived self-efficacy, optimism, and social support.

**Keywords:** psychological well-being, community-dwelling older adults living with chronic illness, optimism, life satisfaction, perceived self-efficacy, social support

## Introduction

Older adulthood is a period of deterioration of physical and mental conditions. Older adults encounter various challenges even the realization that death is coming.<sup>1</sup> The aging population is a global phenomenon as a result of declining birth rates, and increased average life expectancy. In 2018, the world's population was 7.633 million and 990 million people aged 60 and more, or 13% of the total population. For Thailand, it is projected that the country will achieve the status of a "complete aged society" in 2022 when the elderly proportion reaches 20%.<sup>2</sup> At the same time, elderly people

tend to live longer with conditions that cause the deterioration of the body and impact on both physical and mental health. It was found that Thai elderly people now have more chronic diseases such as diabetes mellitus, hypertension, and kidney disease.<sup>2</sup>

These chronic diseases are more likely to cause more severe complications and can lead to disability and death of the elderly. Psychological problems cause uncertain feelings of the symptoms, complications, and severity of the disease, feelings of loss of self-control, feeling unsafe, and

worrying about death.<sup>3</sup> According to the study about trends and directions of long-term care for older people<sup>4</sup>, most elderly people in the community have experienced health problems and chronic illnesses, while the potential of families and communities in health care for the elderly has decreased. The Thai elderly society lacks a support system to care for the elderly with chronic illness which can affect psychological well-being.

Psychological well-being is a positive psychological feature that is related to the growth and development of a person. It consists of 6 dimensions including self-acceptance, positive relations, autonomy, environmental mastery, purpose in life, and personal growth.<sup>5</sup> Psychological well-being among older adults living with chronic illness is an important issue that will affect health conditions or quality of life. Elderly people with high psychological well-being are often self-accepted, have a positive attitude, and are self-confident. They can control or deal with things in life, take care of themselves, help their families, and stay in a positive relationship with others. They can effectively manage negative thoughts and feelings.<sup>6,7</sup>

Psychological well-being is not only free from mental health problems, but it also means having positive conditions in different aspects of life, such as positive thinking, life satisfaction, being happy<sup>8</sup>, having autonomy, self-acceptance, personal growth and positive relations.<sup>9</sup> Therefore, those who have psychological well-being will express appropriate emotional behavior that it is an important immunity in life.<sup>10</sup> According to psychological well-being by Ryff and Keyes<sup>5</sup> and some previous research, there are many factors that are related to psychological well-being among older adults, including personal factors such as health status, optimism, self-esteem, life satisfaction<sup>11,12</sup> and external factors such as social support.<sup>12</sup>

In this present study, the researchers selected factors affecting psychological well-being among community-dwelling older adults living with chronic illness regarding optimism. Scheier and Carver described optimism as a generalized tendency to expect positive outcomes even in the face of obstacles. Optimists were individuals who expect good things to happen to them while pessimists expect the opposite.<sup>13</sup> For life satisfaction, if elderly people were satisfied with their life, they could face situations appropriately, making it a psychological well-being in life.<sup>5,8</sup> For elderly people with positive perceived self-efficacy, autonomy, self-acceptance, purpose in life, personal growth, and positive relations, they

would also face situations properly.<sup>5,9</sup> The elderly would also possess a psychological well-being if they perceived that they were part of society, had high self-esteem, received information from social support sources or various sources, such as spouses, children, relatives, and friends.<sup>5,14</sup>

These findings were based on most previous researches conducted in the elderly with and without specific chronic illnesses. There was a need to understand psychological well-being among community-dwelling older adults living with chronic illnesses. Therefore, specific objectives of this present study were to determine the level of psychological well-being and examine the predictive abilities of optimism, life satisfaction, perceived self-efficacy, and social support on the psychological well-being among community-dwelling older adults living with chronic illnesses. The findings could guide the promotion of psychological well-being for community-dwelling older adults living with chronic illnesses to achieve a good quality of life.

## Methods

This predictive correlational study was conducted to study the level of psychological well-being among community-dwelling older adults living with chronic illnesses and examine the predictive abilities of optimism, life satisfaction, perceived self-efficacy, and social support on such well-being. The study population included 35,714 male and female older adults living with chronic illnesses, aged 60 years or over residing in Rayong province. They had to be able to communicate in Thai language.

The sample size of this study was determined by using G\* Power program based on a type I error of ( $\alpha$ ) of 5% (or  $P$ -value < 0.05), test power of 95%, and a conservative medium effect size of 0.13 to sufficiently represent the population using multiple regression analysis.<sup>15</sup> The use of pre-specified medium effect size deemed appropriate since chronic illness status of the elderly participants in previous research was not detailed. A total of 148 participants were required and recruited using the simple random sampling technique. Based on eight districts in Rayong province, a simple random sampling of 25% of the districts meant two districts were needed. As a result, Muang district and Baan Kai district with 12,820 and 4,552 study population elderly, respectively, were selected. With the quota sampling, 109 and 39 participants

from Muang district and Baan Kai district, respectively, were sampled.

### Research instruments

Instruments were divided into 6 parts as follows. In the **first part**, demographic information including gender, age, education level, occupation, average monthly income, sufficiency of income, living arrangements, and duration of chronic illnesses was collected. In the **second part**, optimism questionnaire developed by Kulprasutidilok was used.<sup>16</sup> With its 5-point Likert-type rating scale ranging from 0-strongly disagree to 4-strongly agree, 10 items of the optimism questionnaire asked about the person's belief that how much a good rather than bad thing would happen. If the goal is sufficiently valuable, the person would set their expectation to reach the goal. The item scores were summed up to obtain the total optimism score. The possible scores ranged from 0 to 40 with higher scores indicating higher optimism. In this study, this scale had an acceptable reliability with a Cronbach's alpha coefficient of 0.77. The total scores could also be classified into 3 levels of optimism, specifically low (0.00 - 13.33 points), moderate (13.34 - 26.66 points), and high (26.67 - 40.00 points).

The **third part** of the questionnaire asked about life satisfaction. This questionnaire was developed by Diener and colleagues<sup>17</sup> and translated into Thai by Boonyarit of Chiangmai University.<sup>18</sup> It includes 5 items with a 7-level rating scale ranging from 1-strongly disagree to 7-strongly agree. Participants were asked about their life in general, life conditions and satisfaction, and the need in their life. The item scores were summed up to obtain the total life satisfaction score with a possible range of 5 to 35 where higher scores indicate higher life satisfaction. In this present study, this scale had high reliability with a Cronbach's alpha coefficient of 0.84. The scores could also be classified into 3 levels of life satisfaction, specifically low (5.00 - 15.00 points), moderate (15.01 - 25.00 points), and high (25.01 - 35.00 points).

The questionnaire's **fourth part** asked about perceived self-efficacy using the scale developed by Kulprasutidilok.<sup>16</sup> The scale includes 10 items with a 5-level rating scale ranging from 1-not at all true to 5-the most true. Participants were asked about their perceived ability to act, cope and control situations, their emotional control, and their ability to cope and solve problems and to achieve their goals. The item scores were summed up to obtain the total perceived self-efficacy

score with a possible range of 10 to 50 points where higher scores indicate higher perceived self-efficacy. In this study, this scale had high reliability with a Cronbach's alpha coefficient of 0.94. The scores could also be classified into 3 levels of perceived self-efficacy, specifically low (10.00 - 23.33 points), moderate (23.34 - 36.66 points), and high (36.67 - 50.00 points).

In the **fifth part**, social support questionnaire developed by Tungmophon was used.<sup>19</sup> The scale includes 15 items with a 7-level rating scale ranging from 1-strongly disagree to 7-strongly agree. Participants were asked in five aspects including how much love and bond they received, how much they were part of the society, how much they perceived their self-esteem, how much they helped others, and how much information and advice they received from various sources. With possible total scores of 15 to 105 points, higher scores indicate higher social support. In this present study, the scale had high reliability with a Cronbach's alpha coefficient of 0.93. The total scores could be classified into 3 levels of social support, specifically low (15.00 - 45.00 points), moderate (45.01 - 75.00 points), and high (75.01 - 105.00 points).

The **last part** of the questionnaire was the psychological well-being scale developed by Ryff and Keyes and translated into Thai by Wichitsiri and Sawngsopakul.<sup>7</sup> It includes 18 items on a 4-level rating scale ranging from 1-strongly disagree to 4-strongly agree. Participants were asked about their psychological well-being with 6 dimensions including self-acceptance, positive relations, autonomy, environmental mastery, purpose in life, and personal growth. With a possible total scores of 18 to 72 points, higher scores indicate higher psychological well-being. In this present study, the scale had acceptable reliability with a Cronbach's alpha coefficient of 0.77. The total scores could be classified into 3 levels of psychological well-being, specifically low (18.00 - 36.00 points), moderate (36.01 - 54.00 points), and high (54.01 - 72.00 points). In addition, each dimension had a total score of 3 to 12 points which could also be categorized into low, moderate and high well-being (3.00 - 6.00, 6.01 - 9.00 and 9.01 - 12.00 points, respectively).

### Data collection procedure

Data collection was conducted after the research proposal was approved by the Ethical Approval Committee of Burapha University. A letter from the Faculty of Nursing, Burapha

University was sent to ask for permission for data collection with community-dwelling older adults living with chronic illness in Rayong province.

The researcher met the participants at their house and sub-district health promoting hospitals, as convenient for the participant. Participants who were randomly selected, met the study criteria and agreed to participate in the study were asked to sign a consent form. With their consent, each participant was in-person interviewed by the researchers or research assistants. The researcher read and fill in the questionnaire for the participant. It took about 60 minutes to complete the questionnaire.

### Human rights protection of research participants

Research proposal was approved for ethical conduct by the Burapha University (approval number: Sci 088/2560). Prior to data collection, the researcher gave a complete explanation and written description about the purposes and process of the study, potential risks and benefits of the study, and the protection of confidentiality of the participants. They had an opportunity to ask questions about the study before signing, and could refuse to participate or withdraw from the participation at any time point. The collected data were reserved confidentially. The results were reported as group, not individual participants' data.

### Data analysis

The demographic data and study variables were analyzed using descriptive statistics including frequency with percentage and mean with standard deviation. Stepwise multiple regression was used for examining the predictive ability of study variables on the psychological well-being. All assumptions applicable to multiple regression were tested. Statistical significance for all analyses was set at a type I error of 5% (or  $P$ -value < 0.05). Statistical analysis was conducted using IBM SPSS Statistics Premium License version 26.

## Results

More than half of the participants were women (56.1%) and had a collective mean age of 68.49 years ( $SD = 7.48$ ) (Table 1). Most of them completed primary school education (79.7%). The majority was unemployed (37.9%) followed by working in agriculture (32.7%). The participants had an average monthly income of 6,032.36 Baht. The majority of them had a sufficient

income (48.7%) and lived with family members (54.7%). They had an average duration of chronic illness of 8.08 years ( $SD = 6.12$ ).

**Table 1** Demographic characteristics of the participants (N = 148).

Characteristics	N	%
<b>Gender</b>		
Male	65	43.9
Female	83	56.1
<b>Age (year); mean = 68.49, SD = 7.48</b>		
≤ 70	99	66.9
71-80	37	25.0
≥ 81	12	8.1
<b>Education level</b>		
No formal education	10	6.8
Primary school	119	80.4
High school	15	10.1
Associate or Bachelor's degree	4	2.7
<b>Occupation</b>		
Unemployed	56	37.9
Agriculturist	55	37.2
Employee	20	13.5
Owner business	11	7.4
Officer	6	4.0
<b>Average monthly income (Baht); mean = 6032.36, SD = 6529.43</b>		
≤ 5000	89	60.1
5001-10000	33	22.3
10001-15000	9	6.1
≥ 15001	17	11.5
<b>Sufficiency of income</b>		
Insufficient	57	38.5
Sufficient	72	48.7
Sufficient and saving	19	12.8
<b>Living arrangement</b>		
Living alone	10	6.7
Living with spouse	55	37.2
Living with family member(s)	81	54.7
Living with parent(s)	2	1.4
<b>Duration of chronic illness (year); mean = 8.08, SD = 6.12</b>		
≤ 5	69	46.6
6-10	41	27.7
11-15	16	10.8
16-20	20	13.5
≥ 21	2	1.4

The total scores of the psychological well-being were found to be from 39 to 66 points (Table 2). With a mean score of  $50.95 \pm 5.95$  points, overall psychological well-being was at a moderate level. Each of all six dimensions of psychological well-being was also at a moderate level. The dimension of positive relations dimension was found to have the highest mean score (mean  $8.78 \pm 1.71$  points), followed by personal growth dimension, self-acceptance dimension, environmental mastery dimension, the autonomy dimension, and the purpose in life dimension (mean =  $8.77 \pm 1.40$ ,  $8.64 \pm 1.76$ ,  $8.64 \pm 1.33$ ,  $8.09 \pm 1.21$ , and  $8.02 \pm 1.24$ , respectively) (Table 2).

It was found that all predicting factors were at a moderate level (Table 3). The mean score of 82.48 points of social support was 78.55% of its highest possible score of 105 points. This made social support the factor with the highest score when compared with its own possible highest score, followed by life

satisfaction (76.63%), perceived self-efficacy (65.82%), and optimism (54.15%).

**Table 2** Scores and levels of psychological well-being of the participants (N = 148).

Dimensions of psychological well-being	Scores of psychological well-being (points)				Level
	Possible range	Actual range	Mean	SD	
Positive relations	3 - 12	3 - 12	8.78	1.71	Moderate
Personal growth	3 - 12	4 - 12	8.77	1.40	Moderate
Self-acceptance	3 - 12	5 - 11	8.64	1.76	Moderate
Environmental mastery	3 - 12	6 - 12	8.64	1.33	Moderate
Autonomy	3 - 12	5 - 11	8.09	1.21	Moderate
Purpose in life	3 - 12	6 - 12	8.02	1.24	Moderate
<b>Total score</b>	<b>18 - 72</b>	<b>39 - 66</b>	<b>50.95</b>	<b>5.95</b>	<b>Moderate</b>

**Table 3** Scores and levels of optimism, life satisfaction, perceived self-efficacy and social support of the participants (N = 148).

Factors	Scores of factors (points)				Level
	Possible range	Actual range	Mean	SD	
Optimism	0 - 40	7 - 32	21.66	3.89	Moderate
Life satisfaction	5 - 35	5 - 35	26.82	5.31	Moderate
Perceived self-efficacy	10 - 50	10 - 50	32.91	8.36	Moderate
Social support	15 - 105	51 - 105	82.48	10.73	Moderate

The predictive ability of various factors variables for the optimism, life satisfaction, perceived self-efficacy, and social support effect on psychological well-being of older adults living with chronic illness with stepwise multiple regression analysis in order to examine the predictive power of all predictors.

Before the stepwise multiple regression was conducted, all assumptions were not violated. The data of psychological well-being and independent variables had acceptable normality and linearity. Based on Durbin-Watson test statistics of 1.879, this suggested a slightly positive autocorrelation. However, this could also be considered close to no autocorrelation since the value was close to the null value of 2.0. No multivariate outliers were found. Multicollinearity of the variables was not found since all Pearson's product moment correlation coefficients (*r*) were lower than the cutoff of 0.85 (i.e., *r* < 0.85) (Table 4).

**Table 4** The correlation coefficient of variables (N = 148).

Variables	Psychological well-being	Perceived self-efficacy	Optimism	Life satisfaction	Social support
Psychological well-being	1.00				
Perceived self-efficacy	.532**	1.00			
Optimism	.398**	.278**	1.00		
Life satisfaction	.243**	.091	.211**	1.00	
Social support	.266**	.173*	.087	.337**	1.00

\* *P*-value < 0.05; \*\* *P*-value < 0.01.

Of the four predictive factors, psychological well-being in elderly with chronic illnesses was significantly associated with perceived self-efficacy ( $\beta = 0.430$ ), optimism ( $\beta = 0.264$ ), and social support ( $\beta = 0.169$ ), but not life satisfaction (Table 5). These three factors could together explain 37.9% of variance of psychological well-being in the participants ( $R^2 = 0.379$ , *P*-value < 0.001).

**Table 5** Association between psychological well-being and its predictive factors based on stepwise multiple regression (N = 148).

Factors	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> change	B	SE(B)	$\beta$	<i>t</i>	<i>P</i> -value
Constant			24.443	3.627		6.739	< .001
Perceived self-efficacy	0.283	0.283	0.305	0.049	0.430	6.210	< .001
Optimism	0.351	0.068	0.403	0.105	0.264	3.851	< .001
Social support	0.379	0.028	0.094	0.037	0.169	2.536	0.012

$R^2 = 0.379$ , Adjusted  $R^2 = 0.366$ ,  $F_{(3, 144)} = 29.249$ , *P*-value < 0.001.

## Discussions and Conclusion

Psychosocial well-being among the elderly with chronic illnesses participating in our study was at a moderate level (mean = 50.95 out of the possible 72 points). All six individual dimensions of psychological well-being were also at the moderate level. These participants had an average age of 68.49 years and mean duration of chronic illness of 8.08 years. Their overall health was considered good, although there might be a gradual decline in physical and mental health development<sup>6</sup> or chronic disease might become more severe. Even though these older adults living with chronic illness were able to take care of themselves and perform daily activities on their own, such fear of physical decline, and more severe diseases and their complications could have weakened their psychological well-being and a moderate, not high, level of the well-being could be a result.

According to Ryff and Keyes, people with positive psychological well-being, good outlook on life, life satisfaction, emotional balance, positive perceived self-efficacy, and autonomy were able to face various situations appropriately.<sup>5</sup> In addition, they could have positive relationships with others and could set goals for their lives.<sup>5</sup> This finding was consistent with the study of Thongsuk and colleagues which revealed that psychosocial well-being among older adults was at a moderate level.<sup>20</sup> Other studies also demonstrated similar findings. The study of Wichitsiri and Sawngsopakul found that psychological well-being of elderly in the elderly club at Wat

Sarod, Rat Burana District, Bangkok was at a moderate level.<sup>7</sup> The study of Chaoayachai and co-workers revealed that older patients with cancer receiving chemotherapy demonstrated a moderate level of psychological well-being.<sup>21</sup> In addition, the study of Puttamat and colleagues revealed that psychological well-being of older people in nursing homes was at a moderate level.<sup>22</sup>

We found that psychological well-being was significantly associated with three factors including perceived self-efficacy ( $\beta = 0.430$ ), optimism ( $\beta = 0.264$ ) and social support ( $\beta = 0.169$ ). These predictors could together explain 37.9% of variance in psychological well-being among community-dwelling older adults living with chronic illness ( $R^2 = 0.379$ ,  $P$ -value  $< 0.001$ ). These findings could be explained as follows.

Perceived self-efficacy served as the strongest predictor of psychological well-being ( $\beta = 0.430$ ) and could explain 28.3% of well-being variance ( $R^2$  change = 0.283). Ryff and Keyes suggested that people with positive perceived self-efficacy and autonomy were able to face various situations appropriately which could result in an increased psychological well-being.<sup>5</sup> Based on Bandura, self-efficacy is a person's decision to manage and perform behavior to achieve the goals.<sup>23</sup> Elderly people with self-efficacy would have clear life goals, be patient with various obstacles, and be able to control their illness, ease which could further result in an increased psychological well-being.<sup>23</sup> Our finding was consistent with the study of Jitabut and colleagues which found that well-being of patients with type 2 diabetes was positively correlated with perceived self-efficacy ( $r = 0.532$ ,  $P$ -value  $< 0.001$ )<sup>24</sup> and the study of Thongsuk and co-workers which revealed that perceived self-efficacy could predict psychosocial well-being among older adults ( $\beta = 0.199$ ,  $P$ -value  $< 0.05$ ).<sup>20</sup> In addition, the study conducted by Milam et al revealed that self-efficacy could predict psychological well-being among surgical residents ( $B = 0.34$ ,  $P$ -value = 0.001).<sup>25</sup>

In our study, optimism was the second strongest predictor of psychological well-being ( $\beta = 0.264$ ) suggesting that more optimism among older adults living with chronic illness could increase their psychological well-being. Optimism could explain 35.1% of well-being variance ( $R^2$  change = 0.351). According to Scheier and Carver, optimism was the perspective of a person who has hope, emotional balance, positive outlook on life, autonomy, self-worth, and liveliness.<sup>13</sup> Despite the confrontation with gradual decline in physical health, older adults living with chronic illness who had

optimism could find encouragement and solutions to cope with and overcome the problems.<sup>5,6</sup> Our finding was consistent with the study of Chussanachote and colleagues which revealed that optimism could predict psychological well-being among aging people ( $\beta = 0.630$ ).<sup>26</sup> The systematic review study of Chida and Steptoe found that optimism was correlated with psychological well-being.<sup>27</sup> In addition, the study of Ferguson and Goodwin<sup>28</sup> and the study of Espirito Santo and Daniel<sup>29</sup> revealed that optimism could predict psychological well-being. Furthermore, the study of Heo et al found that optimism affected psychological well-being of older adults with cancer experience.<sup>30</sup>

Social support was the third best predictor of psychological well-being ( $\beta = 0.169$ ). Social support could explain 37.9% of well-being variance ( $R^2$  change = 0.379). Older adults living with chronic illness who perceive more social support would feel being loved, worthy, lively, recognized and accepted by others including their family members. As a result, social support enhances self-esteem, promotes confidence and emotional stability, acts as buffer toward adverse or critical events, and reduces stress.<sup>31</sup> They are also aware of resources that could help them achieve their goals, resulting in an increased psychological well-being.<sup>6</sup> In addition, social support also enhances health promotion and prevention and encourages the elderly to reduce the stress that occurs in their life.<sup>32</sup>

Our finding was consistent with various studies. The study of Friedman and King found that social support was correlated with psychological well-being of elderly women.<sup>33</sup> The study of Kruaaem found that social support was correlated with the happy life of the elderly.<sup>34</sup> The study of Jitabut and colleagues revealed that well-being of patients with type 2 diabetes was positively correlated with social support ( $r = 0.517$ ,  $P$ -value  $< 0.001$ ).<sup>24</sup> In addition, the study of Yuenyong and Jaiyungyeun revealed that social support could explain 67.3% of variance in psychological well-being among elderly people with chronic diseases. ( $R^2 = 0.673$ ,  $P$ -value  $< 0.001$ ).<sup>35</sup> The study of Moe found that social support could explain 18% of variance in women's psychological well-being within positive functioning framework ( $R^2 = 0.18$ ,  $P$ -value  $< 0.001$ ).<sup>36</sup>

Findings from this study could be used for developing interventions or programs aiming at promoting psychological well-being among community-dwelling older adults living with chronic illness by focusing on perceived self-efficacy, optimism, and social support. However, to better understand

psychological well-being among community-dwelling older adults living with chronic illness, qualitative research by in-depth interview in order to obtain information that can be used to develop programs to promote the psychological well-being in this group of patients should be conducted.

In conclusion, psychosocial well-being among community-dwelling older adults living with chronic illness was at a moderate level. Significant predictors of psychological well-being among were perceived self-efficacy, optimism, and social support. These predictors could together explain 37.9% of variance in psychological well-being among community-dwelling older adults living with chronic illness.

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