

Health-Promoting Behaviors and Related Factors in Patients with Chronic Diseases in a Rural Community

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ABSTRACT

Non-Communicable Diseases (NCDs) are a major health issue worldwide. However, health-promoting behaviors have been shown to enhance the quality of life across diverse populations. This descriptive cross-sectional study aimed to examine the health-promoting behaviors and related factors among chronic disease patients in a rural community. In total, 172 people were calculated using the G*Power program. We used Pearson correlation coefficient and Chi-square test to analyze the data. Current study found that 86% of patients with chronic diseases had a moderate level of overall health-promoting behaviors. With regards to factors associated with health-promoting behavior, the significant related variable ($p < 0.05$), included age, education level, monthly income, and social support. Based on these results, we suggest that healthcare providers and public health sectors should encourage and promote healthy behavior and improve self-care in patients with chronic diseases.

Keywords: Health-promoting behaviors, chronic diseases, social support, Thai community

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INTRODUCTION

Non-communicable diseases (NCDs) represent the highest causes of disease and death worldwide.¹ NCDs are diseases, which are not transmitted from one person to another such as cardiovascular diseases, hypertension, diabetes, cancer, and chronic respiratory diseases.² They are estimated to increase from 38 million in 2012 to 52 million by 2030.¹ In low middle-income countries, including Thailand, the amount of deaths resulting from NCDs accounts for eighty percent all deaths and more than ninety percent of early deaths.² Currently, a chronic disease in Thailand is a major public health problem affecting population structure, social environment, economy, medical technology, and environmental issues.^{3,4} NCDs are the main cause of disability and mortality, as represented by disability-adjusted life years, which is a summary of the years of life lost due to premature mortality, and the years of productive life lost due to disability.^{5,6}

Several previous studies have found that the major risk factors of NCDs are inappropriate health behaviors such as the consumption of sugary, oily, and overly salty foods, lack of exercise, stress, tobacco use, and alcohol consumption.⁷⁻¹⁰ These health behaviors pose a risk of leading to chronic diseases including cardiovascular diseases, hypertension, diabetes, and obesity.^{11,12} According to Pender et al¹² health-promoting behaviors are important for all people, especially patients, because health promotion motivates a person to be healthier. In addition, health enhancement can also affect the quality of life of the individual and achieve the ultimate goal of living a healthy life. Health-promoting behavior consists of six elements (1) self-care responsibility; (2) physical activity; (3) food consumption; (4) spiritual growth; (5) interpersonal attachment; and (6) stress management.¹³ Therefore, if patient has appropriate health-promoting

behaviors, the patients can gain good health care for themselves, families, and societies as well.

Based on the situation of chronic diseases, NCDs are currently a public health problem in Thailand and the world. The main causes of chronic disease are inappropriate behaviors, including diet, exercise, and stress management.^{14,15} Therefore, current study aims to investigate the health-promoting behaviors and factors related to health promoting-behaviors in patients with chronic diseases in rural communities. The findings of this study will provide the basis for the correction of factors affecting health-promoting behavior in a way that is suitable for patients with chronic diseases in the future and for a longer quality of life.

Purpose

This current study aims to examine health-promoting behavior and related factors in patients with chronic diseases in a rural community in Thailand.

METHODS

Research Design

The study was a descriptive cross-sectional design.

Sample and Setting

We used G*power program to calculate the sample size using the following: a two-tailed hypothesis test, significance level of .05, and power of .80 which resulted in a sample size of 172 participants. This study was conducted at the rural community in Ubon Ratchathani province, Thailand.

Instruments

The current study questionnaire consisted of three parts. The first part of the questionnaire was sociodemographic data (i.e., age, gender, marital status, education levels, monthly income, and occupation). The second part of the instrument was Social Support developed by House¹⁶, and Prabsangob¹⁷. The Social Support tool consists of 16 items, 4 scales. The internal consistency by Cronbach's

alpha coefficient was 0.90. The third part of the questionnaire consisted of the Health-Promoting Lifestyle Profile-II in the Thai version (HPLP-II) questionnaire developed by Seeherunwong, Suwonnarop¹⁸, and Suksatan, Boonvarasatit, Popijan¹⁹. The HPLP II Thai version tool consists of 43 items that are categorized into six dimensions: health responsibility (seven-item), physical activity (seven-item), nutrition (eight-item), interpersonal relationships (seven-item), spiritual growth (eight-item), and stress management (six-item). The HPLP II Thai version is a self-report questionnaire with Likert-scale responses and the internal consistency by Cronbach's alpha coefficient was 0.92.

Data collection

We met the qualified respondents at community sites. After obtaining their permission, participants who met the inclusion criteria and agreed to participate were approached and explained the purpose of this study, processes, and instruments. Participants signed informed consent forms to signify full knowledge of the instruments and participated in the study for 15-20 minutes.

Ethical Consideration

The current study was approved by the Suan Sunandha Rajabhat University (COA.1-024/201) and was carried out with written informed consent from the participants. However, patients who were not willing to participate could withdraw anytime.

Data analysis

The researchers used descriptive statistics to explain the demographic data of the participants (i.e., age, gender, marital status, education level, monthly income, and occupation) and health-promoting behavior levels. The researchers used the Pearson product-moment correlation coefficient and Chi-square test to analyze the factors related to health-promoting behavior in patients with chronic diseases.

RESULTS

The results indicated that more than half of the participants were female (n = 100 58.14%). From the sample, the average age was 68.22 ± 6.28 (Mean ± SD) years. Of the participants, 73.84% (n = 127) were married, 43.02% (n = 74) had a primary school education, 38.95% (n = 67) had an average monthly income of 312.5 US Dollar. The majority of the participants were agriculturist 82.56% (n = 142).

The health-promoting behavior total score of the participants as measured by HPLP II was at a moderate level (86%, n = 50). The subscales showed that the score of the health responsibility, stress management, interpersonal relationships, nutrition, physical activity, and spiritual growth were at moderate level in this study (see Table 1).

Table 1. Descriptive of Health-Promoting Behavior Total and Subscales

Health-Promoting Behavior	Health-Promoting Behavior Level		
	High	Moderate	Low
	n (%)	n (%)	n (%)
Total HPB	32 (18.60)	86 (50.00)	54 (31.40)
Health responsibility	22 (12.79)	102 (59.30)	48 (27.91)
Physical activity	34 (19.77)	82 (47.67)	56 (32.56)
Nutrition	32 (18.60)	90 (52.33)	50 (29.07)
Interpersonal relationships	36 (20.93)	94 (54.65)	42 (24.42)
Spiritual growth	39 (22.67)	78 (45.35)	55 (31.98)
Stress Management	41 (23.84)	100 (58.14)	31 (18.02)

Table 2 reveals that age (r = .219, p < .001), income (r = .363, p < .001), and social support (r = .408, p < .001) were positively associated with health-promoting behavior (p < .001). The Chi-square test showed that education levels were associated with health-promoting

behavior (p = .004). However, gender, marital status, and occupation were not correlated with health-promoting behavior in patients with chronic diseases in a rural community (p > .05).

Table 2. Descriptive and Correlational Analysis of Health-Promoting Behavior Total and Related Factors

Variables	Pearson correlation coefficient (r)	p-value
Age	.219	<.001*
Income	.363	<.001*
Social Support	.408	<.001*

* p-value < .01

DISCUSSION

This study aims to examine health-promoting behavior and related factors in Thai patients with chronic diseases in a rural community. The results of this study led to the conclusion that health-promoting behavior in relation with Thai chronic diseases, as conducted by HPLP II Thai version, were strongly associated with age, education level, monthly income, and social support. However, gender, marital status, and occupation were not

correlated with health-promoting behavior in patients with chronic diseases.

The current study supports that the age of the participants had a positive relationship with health-promoting behavior. As patients get older, they can learn more self-care skills with age.²⁰ Therefore, age has a great influence on the expression or response and severity of chronic diseases. Several studies also found that age is positively associated with health-promoting behavior among people with prehypertension in a rural

community.²¹ In addition, this finding is also similar to previous studies conducted in the United States, which study age as related to health-promoting behavior.²² Gender was not associated with health-promoting behavior in patients with chronic diseases. This may indicate that both males and females received care from healthcare providers and they also gained information from families, colleagues, and various sources of social medias, news or advertising. Thus, health-promoting behavior levels of patients with chronic diseases was not different between men and women. This result is similar to Suksatan²³, which shows that, gender and occupation were not related to health-promoting behavior among people with prehypertension in a community (p -value $>.05$).

This study found that marital status variable was not correlated with health-promoting behavior in patients with chronic diseases. This result is similar to Vinijkul, Tipseankhum²⁰, which shows that, marital status was not related to health-promoting behaviors of chronic disease in patients in a community. This may indicate that the intrinsic factors regarding lifestyle patterns, health conditions, and personal habits affect self-care practices because individual lifestyles are different.²⁴ This results contrast Hong, De Gagne, Shin²⁵, which shows that, marital status is positively associated with health-promoting behavior in older Korean adults (p -value $<.001$).

The current study supports prior empirical findings that education level had no correlation with health-promoting behavior. This may indicate that a good level of education will facilitate positive changes in health-related behavior because participants will take care of themselves and become aware of the importance of changing health practices to prevent complications.^{26,27} In addition, the finding of this study is closely related to Mochari-Greenberger, Mills, Simpson, Mosca²⁸, which shows that education level is positively related to health-promoting behavior among patients with cardiovascular disease. It is important to learn more about the monthly income associated with health-promoting behavior in chronic disease patients. This study's finding is similar to previous studies conducted in Hongkong, where the family income was associated with health promoting behavior.²⁶ The monthly income may indicate that, if patient has sufficient income for living, they will have the ability to pay for their own health promotion activities. These results also closely tied to Reisi, Javadzade, Heydarabadi, Mostafavi, Tavassoli, Sharifirad²⁹, which shows that monthly income was positively correlated with health-promoting behaviors in older adults ($p = <.001$). This current study indicated that social support had positively associated with health-promoting behavior in patients with chronic diseases. Family members, neighbors, colleagues, and health professionals are interpersonal factors that influence health promotion in helping to stimulate willingness to practice health-promoting behaviors in patients.²¹ Several researcher teams reported that social support is strongly correlated with health-promoting behavior in patients with hypertension.³⁰⁻³² In addition, some researchers also found that social support positively corelated with diabetes patients ($p < .05$).³³⁻³⁵

CONCLUSION

This study contributes relevant information to understanding the development of health-promoting

behaviors in chronic disease patients. This study indicated that age, education level, monthly income, and social support were significant positive correlation with health-promoting behavior in patients with chronic diseases. Therefore, researchers hope that the findings of current study can be used as a reference to encourage and promote healthy behavior, and also improve self-care in patients with chronic diseases.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

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