

# Improving Health–Promoting Behaviors and Quality of Life through Breast Cancer Support Groups for Thai Women

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**Abstract :** The purpose of this two-group, quasi-experimental study with repeated measures was to examine the effects of a 5-weekly health-promotion cancer support group intervention with three monthly telephone support on health-promoting behaviors and quality of life in Thai women with recently diagnosed breast cancer. The sample consisted of 59 breast cancer women receiving treatment; 29 women were assigned to experimental group and 30 women to control group. Data were collected at three times: baseline prior to the intervention (T1), within two weeks of completion of 5-weekly 1 ½ hour group sessions (T2), and at six months (T3). Research instruments for data collection were Functional Assessment of Cancer Therapy–Breast scale and Health Promotion Life Style Profile II for assessing quality of life and health-promoting behaviors respectively. Using repeated measures ANOVA, the results revealed that women in experimental group, compared with those in control group, demonstrated significant improvement of health-promoting behaviors and quality of life both in short-term (Week 5-7) and long-term (6 months). These findings suggest that the health promotion cancer group support may be an efficacious psychosocial intervention for changing health behaviors and improvement of quality of life in Thai women with breast cancer during and after treatment. Nurses should promote cancer support group participation aiming at changing health-promoting behaviors for patients with cancer as a crucial part of their nursing care.

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**Keywords:** Cancer support group; Health-promoting behaviors; Quality of life; Breast cancer

## Introduction

A diagnosis of breast cancer is a life-threatening event that typically causes substantial negative physiological and psychosocial responses.<sup>1,2</sup> Following the diagnosis many women are motivated to seek out information and support. Prior research indicates that people with cancer can benefit from attending various forms of cancer support groups to learn about their disease and ways to cope with its nature and

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treatment.<sup>2,3</sup> However, there is no strong empirical evidence to support that these interventions help women cope effectively with their cancer diagnosis and its subsequent treatment in the long-term. Although the experience of a cancer diagnosis and treatment is difficult, it may serve as a critical cue for an individual to undertake health promotion activities. Recent research has shown that changing health behaviors after a cancer diagnosis can be beneficial for people with cancer in restoring their feeling of control and well-being.<sup>4,5</sup> To date, few studies have examined cancer patients' health behaviors or health promotion interventions for people living with cancer. Data regarding changes in lifestyle in response to a diagnosis of breast cancer are scarce. This is particularly true for a country like Thailand where breast cancer is the most common cancer among Thai women, and health promotion activities are being emphasized by the Thailand National Health Plan.<sup>6</sup>

Despite the proliferation of reports on the effectiveness of cancer support group in Western countries, only a few studies on cancer support groups have been conducted in Thai women with breast cancer. To date, no cancer support group intervention with an emphasis on health promotion and wellness has been conducted in Thai women with recently diagnosed breast cancer. Thus, the main purpose of this study is to examine effects of a health promotion cancer support group intervention (HPCSG) consisting of 2 parts; a series of five 1½ hour sessions of health promotion support group offered weekly, and a 3-monthly telephone support call to encourage use of health-promoting behaviors among women facing breast cancer diagnosis during and after treatment, comparing the experimental group to a control group receiving regular care at the hospital.

The research hypothesis was that women facing breast cancer diagnosis and treatment who participated in HPCSG intervention would have significantly higher scores (than baseline) on measures of health-promoting (HP) behaviors and quality of life after

completion of the HPCSG intervention at T2 (following intervention) and T3 (at 6 months) compared with women in the control group who received regular care.

## **Review of Literature**

Over the years, research has consistently shown that most patients with cancer need information and support.<sup>7-9</sup> A literature review of breast cancer studies indicates that lack of adequate information is a major source of heightened anxiety and fear among women with newly diagnosed breast cancer. Most women felt they needed professional help to discuss and reflect on a variety of questions at all stages of their treatment. The findings from the literature review suggested that support group interventions combining the need for information, expression of emotions, and social support have proven to be effective in reducing emotional distress and improving QOL. Several studies show strong evidence that participation in a support group can improve one or more domains of QOL. Research both in Thailand and in the U.S. also support the idea that face-to-face support groups is an effective means of helping cancer patients cope with their illness and treatment and improve their mood,<sup>3, 10</sup> self-esteem<sup>11</sup>, coping abilities<sup>2</sup>, sense of coherence<sup>12</sup> and quality of life.<sup>13</sup> These positive outcomes have been found across all types of support groups whether the group is open-ended, self-help, patient-education-cognitive, cognitive-behavioral, or supportive expressive.<sup>14</sup> The content of the intervention varied from study to study with most focusing on psychological support, basic information about cancer and cancer care, stress management and problem solving skills, strategies for enhancing communication, training relaxation and meditation, and health promotion education. In providing care for women with breast cancer to cope effectively with cancer diagnosis and active treatment therefore, nursing intervention should focus both on developing patients' skills for coping

with cancer and its treatment, and on their ability to adapt to having a life-threatening or chronic illness.

Lifestyle change after cancer diagnosis and treatment can serve as a key factor to preventing morbidity and mortality and improving well-being of individuals with cancer. Data suggest that individuals with cancer were highly motivated to attempt lifestyle changes in diet, physical activity and dietary-supplement use after diagnosis of cancer.<sup>5,15</sup> However, the findings have been inconsistent with some studies. For example, Pinto and colleagues<sup>16</sup> found that only one-third of women treated for breast cancer reported consuming a diet in low fat and exercised at recommended levels. In this study, self-efficacy was found to be strongly associated with positive dietary and exercise changes in women with breast cancer and represents a potential target for behavioral change intervention. Consistent with findings from the literature focusing on behavior changes following cancer diagnosis, self-efficacy appears to be a powerful determinant in promoting health behavioral change for people with cancer.<sup>17</sup>

### **Conceptual Framework**

The conceptual model guiding this study was derived from Stuijbergen's explanatory model for health promotion within chronic illness<sup>18</sup> which incorporates concepts from Pender's Model of Health Promotion<sup>19</sup> and Self-efficacy Theory.<sup>20</sup> In the explanatory model, HP behaviors are influenced by perceived barriers, resources and self-efficacy. Stuijbergen and colleagues<sup>18</sup> propose that an enhancement of knowledge and skills to increase resources and self-efficacy and reduce barriers will result in greater participation in HP behaviors. Engaging in HP behaviors in turn improves quality of life and sense of well-being. Participation in HP behaviors is one strategy recommended to manage disease symptoms and enhance quality of life for people with chronic conditions such as cancer. The Health

Promotion Cancer Support Group (HPCSG) intervention developed and employed in this study was expected to facilitate awareness of personal resources, enhance self-efficacy, and reduce perceived barriers to the use of health-promoting behaviors. Barriers are personal perceptions concerning the unavailability, inconvenience, or difficulty of a health promotion option.<sup>18</sup> Using health-promoting behaviors in turn could improve quality of life among women with breast cancer during treatment in this study.

### **Method**

**Design:** This study was a 2-group, quasi-experimental design with repeated measures.

**Ethical considerations:** Prior to implementation, the study was approved by the Ethics Committee on Research Involving Human Subjects, Faculty of Medicine, Siriraj Hospital, (Certificate of Approval no. Si 029/2010). Each potential subject was informed about the purpose of the study, confidentiality and anonymity issues, and the right to withdraw at any point in the study with no effect on their treatment or hospital services.

**Sample:** The study was conducted between April 2010–March 2012 in the Department of Radiation Oncology of one university hospital in Bangkok. The participants were recruited from the population of women who were diagnosed with breast cancer and receiving treatment (either surgery, chemotherapy, radiation therapy alone or combined therapy). Eligible participants were (1) 20 years or older; (2) aware of her actual diagnosis with breast cancer; (3) able to read, write and communicate in Thai language; 4) in a good state of health, and (5) able to participate the group support classes at least four of five 1 ½ hour class offered weekly. Patients were excluded from participation if they had severe disease burden, psychiatric diagnosis such as cognitive disorder, mood disorder, or if they had cancer at another site. The sample size calculation was based on

the power analysis for experimental research<sup>21</sup> with a desired power of 0.80, significance level of 0.05, effect size of 0.5 (medium effect size), plus an additional 20% for attrition, which resulted in the need for 30 participants in each group.

**Instruments:** A set of instruments were used in this study including 1) the instruments for data collection and 2) a support group intervention. Three instruments for data collection were as follows:

(1) *The Personal and Breast Cancer Characteristics Questionnaire* (PBCQ) was used to assess personal characteristics of participating women (in terms of age, education, marital status, religion, adequacy & satisfaction with income, economics of daily living, and employment) and breast cancer characteristics (type of breast cancer, stage of cancer, week/month diagnosed, past and present treatment, daily medications, and medications for control of symptoms). The questionnaire was developed by the researchers based on the previous studies.<sup>22, 23</sup>

(2) *The Health Promotion Lifestyle Profile II* (HPLP-II) was used to evaluate health-promoting (HP) behaviors.<sup>24</sup> This is a 52-item 4-point scale assessing the frequency with which individuals report engaging in activities directed toward increasing their level of health and well-being. Responses are scaled from 1 "Never" to 4 "Routinely" with possible scores ranging from 52 to 208. A higher score indicates more frequent practice of a health behavior. The instrument is composed of six subscales including Interpersonal Relationships: IR, Nutrition Management: NM, Health Responsibility: HR, Physical Activity: PA, Stress Management: SM, and Spiritual Growth: SG. Examples of the items are: "I discuss my problems and concerns with people close to me" (IR), "Choose a diet low in fat, saturated fat, and cholesterol (NM), "Read and watch program about improving health" (HR), "Follow a planned exercise program" (PA). "Take sometimes for relaxation each day" (SM), and "Believe that my life has purpose" (SG). A translated version of the HPLP-II exists in Thailand and permission for its use was obtained prior to use.

The tool was translated using back-translation technique by Sriyuktasuth<sup>25</sup> with a reported Cronbach's alpha internal consistency at 0.87 in measuring health-promoting behaviors of Thai women with systemic lupus erythematosus. Internal consistency of the HPLP-II total scale in women with chronic disease was 0.92, and the reliabilities of the six subscales ranged from 0.75 (stress management) to 0.83 (physical activity).<sup>18</sup> The original instrument, used in people with cancer, had internal consistency of 0.93 for the total scale.<sup>26</sup> In this study, the Cronbach's alpha for the total scales HPLP-II across three times of measurement ranged from 0.92– 0.93.

(3) *The Functional Assessment of Cancer Therapy-Breast* (FACT-B) *Version 4*<sup>27</sup> was used to evaluate the impact of cancer and cancer treatment on quality of life in women with breast cancer. It consisted of FACT-G (General QOL) 27 items and additional concerns more specific to women with breast cancer 9 items (BCS subscales). General QOL (FACT-G) is divided into four domains: Physical Well-Being: PWB (7 items), Social/Family Well-Being: SWB (7 items), Emotional Well-Being: SWB (6 items), and Functional Well-Being: FWB (7 items). Examples of the items in each domain were: "I have a lack of energy" (PWB), "I feel close to my friends" (SWB), "I am satisfied with how I am coping with my illness" (EWB), and "My work (including work at home) is fulfilling" (FWB). The examples of Breast Cancer Subscales (BCS) were "one or both of my arms are swollen or tender" and "I will sexually attractive". All items use a 5-point rating scale ranging from 0 "Not at all" to 4 "Very much". The FACT-B Thai version was translated by Ratanatharathorn et al.<sup>28</sup> and permission for its use was obtained prior to use. Higher scores on the FACT-B scales indicate a higher QOL. The internal consistencies of the total FACT-B subscales in a sample of women with breast cancer at before, during, and following treatment ranged from 0.84 to 0.86.<sup>29</sup> In the current study the Cronbach's alpha for the total scales FACT-B across three times of measurement ranged from 0.92– 0.94.

**Intervention:** Health promotion cancer support group (HPCSG) intervention was developed by the researchers consisting of two parts: 1) a series of five 1 ½ hour classes offered weekly followed by 2) three monthly telephone social support calls. The five sessions presented information, knowledge and skills on the following topics; 1) *Education*: knowledge about breast cancer and management of symptoms/side effects, health promotion within a chronic condition. 2) *Stress management*: coping strategies & problem solving skills, effective communication, relaxation techniques, 3) *Lifestyle adjustment*: lifestyle changes and positive thinking, 4) *Physical activities*, and 5) *Nutrition*. These sessions provided participants with the support, information, and skills necessary to cope successfully with a diagnosis of cancer and to engage in health-promoting behaviors that improved their well-being. The intent of the intervention was also to motivate individuals in assessing their present health behaviors, setting meaningful goals for change, and emphasizing the resources, and skills necessary for changing HP behaviors. The five session length of time was chosen for the study as it received empirical support from Thai literature<sup>11,12</sup> and also was considered appropriate for Thai women living in Bangkok, a very crowded city where transportation and traffic problems may inconvenience some women and prevent them from participating in the entire program. Group size was limited to 8–12 women with each group run and facilitated by the researchers and counseling nurse. Activities in the group each week included (1) content of each weekly session, 30 min; (2) sitting exercise /relaxation techniques, 10 min; and (3) sharing feeling/experiences of the past week among group, 50 min. Monthly telephone social support calls were provided by the investigator for three months as the second part of the intervention. This was to follow up the participant's skill building self-efficacy, adjustment

to illness, and engaging in lifestyle changes and HP behaviors.

**Procedures:** All participants who met the inclusion criteria were approached by a trained research assistant who discussed the study details and gave them a chance to ask questions to clarify their doubts. When the woman agreed to participate in the study, formal written consent form was subsequently obtained. Sixty women meeting the study criteria were recruited into this study. To avoid contamination effect that may have arisen from sharing information between intervention group members and control group, baseline data (T1) from women in the control group (n=30) were collected and completed first, before starting data collection of the intervention group (n=30). Women participating in the intervention group were asked to complete the study questionnaires before participation (T1), and after completion of five-weekly sessions of support group intervention (T2). Women participating in the control group completed the study questionnaires at the time consent was obtained (T1), and 5–7 weeks later (T2). All participants in both groups completed the study questionnaires at six months (T3). Completion of the questionnaire took approximately 30–40 minutes.

**Data analysis:** Descriptive statistics were used to summarize participants' background information, breast cancer characteristics, and scores on study variables including health-promoting (HP) behaviors and QOL were calculated. Independent t-test and chi-square analyses were used for continuous and categorical variables to compare baseline data between the intervention and control groups. Data on QOL and HP behaviors were analyzed by repeated-measures analysis of variance (Repeated-measures ANOVA). These analyses were conducted to examine changes over time, differences between experimental and control groups, and interaction between group and time factors.

## Results

There were 60 women who initially enrolled in this study. One woman in the intervention group died from cancer recurrence during study thus the final sample included 59 women (control group = 30, and intervention group =29). All the women already had breast surgery before while receiving radiation therapy during study participation (Time 1 and Time 2). There were no statistical differences between the intervention

and control groups in terms of age, educational attained, occupation, method of medical payment, stage of disease, treatment regimen, and time since a receipt of cancer diagnosis at baseline (T1). There was a significant difference in the financial situation of women between these two groups ( $\chi^2=6.124$ ,  $p=.048$ ), with a higher percentage of the control group (23.33% vs. 10.34%) reporting no financial problem. Information regarding patients' characteristics was presented in Table 1.

**Table 1** Demographic and Clinical Characteristics of the Study Sample, Intervention Group and Control group

Study Variables	Sample (n=59)	Intervention Group (n=29)	Control Group (n=30)	T-test	$\chi^2$ -test	P
<b>Age (yrs)</b>						
< 35	1	0	1			
35-49	24	10	15			
50-69	31	17	14			
> 69	2	2	0			
Mean	51.15	52.76	49.60	1.386		NS
SD	8.82	8.36	9.11			
<b>Marital status</b>						
Married	37	19	18		2.354	NS
Single	10	6	4			
Divorced	7	3	4			
Separated	5	1	4			
<b>Education</b>						
< Bachelor level	44	24	20		6.056	NS
Bachelor level	14	4	10			
>Bachelor level	1	1	0			
<b>Financial situation</b>						
No money problem	8	1	7		6.124	.048
Fair	43	25	18			
Not enough	8	3	5			
<b>Methods of payment</b>						
Self-payment	3	0	3		3.918	NS
Universal coverage (Gold card)	30	17	13			
Reimbursement/ Insurance	26	12	14			

**Table 1** Demographic and Clinical Characteristics of the Study Sample, Intervention Group and Control group (Continued)

Study Variables	Sample (n=59)	Intervention Group (n=29)	Control Group (n=30)	T-test	$\chi^2$ -test	<i>P</i>
Stage of disease						
0		1	0		-.263	NS
1		0	3			
2		13	13			
3		15	13			
4		0	1			
Time since diagnosis						
Mean (months)	6.44	6.73	6.15	.806		NS
SD	2.73	3.11	2.31			

NS = not significance

**Table 2** Comparison of Mean Scores on Health-Promoting Behaviors Over Time in both Control and Experimental Groups (N=59)

HPLP-II score	Time of measurement			F	p
	Baseline (T1)	Wk 5-7 (T2)	6 months (T3)		
Control group (n = 30)	M	147.50	143.47	1.68.	.195
	SD	20.85	21.04		
Experimental group (n = 29)	M	133.59 <sup>a</sup>	139.21 <sup>b</sup>	15.78	.000
	SD	19.29	20.47		

Note: <sup>a</sup> = Statistical significance between T1 and T2;<sup>b</sup> = Statistical significance between T2 and T3;<sup>c</sup> = Statistical significance between T3 and T1**Table 3** Comparison of Mean Scores on Quality of Life Over Time in both Control and Experimental Groups (N=59)

FACT-B score	Time of measurement			F	p
	Baseline (T1)	Wk 5-7 (T2)	6 months (T3)		
Control group (n = 30)	M	100.17	97.50	1.99.	.146
	SD	19.77	18.34		
Experimental group (n = 29)	M	99.55 <sup>a</sup>	100.90 <sup>b</sup>	20.36	.000
	SD	20.17	16.67		

Note: <sup>a</sup> = Statistical significance between T1 and T2;<sup>b</sup> = Statistical significance between T2 and T3;<sup>c</sup> = Statistical significance between T1 and T3



**Table 4** Analysis of Variance for Health-Promoting (HP) Behavior and QOL Over Time (N = 59)

Source of variance	Df	MS	F	p
<b>HP Behavior</b>				
Between subjects				
Group	1	1042.30	1.01	.319
Error	57	1031.62		
Within subjects Time	2	454.16	4.76	.010
Group x Time	2	1138.14	12.71	.000
Error	114	90.30		
<b>QOL</b>				
Between subjects				
Group	1	53.53	.066	.799
Error	57	817.17		
Within subjects Time	2	1381.50	15.29	.000
Group x Time	2	902.58	9.99	.000
Error	114	90.30		

#### Effect of HPCSG Intervention on Health-Promoting (HP) Behaviors.

The mean score on HP behaviors at each point of measurement are displayed in Table 2. A repeated measures ANOVA performed on HP behaviors demonstrated a significant main effect for time ( $F=4.76$   $p=.01$ ) and a significant time by group interaction effect ( $F=12.71$ ,  $p=.000$ ) (See Table 4)

One-way repeated measures ANOVA on HPLP-II were performed for each group separately. Health-promoting behavior scores changed over time among women in the intervention group ( $F= 11.08$ ,  $p=.000$ ). Post-hoc pair wise comparisons indicated that there were significant differences (1) between the HPLP-II mean scores at T1 and T2 (mean difference = 5.62,  $p=.02$ ), (2) between scores at T2 and T3 (mean difference = 8.14,  $p=.007$ ), and (3) between scores at T1 and T3 (mean difference = 13.76,  $p=.000$ ). The HPLP-II score for breast cancer women in the control group did not differ significantly over time.

#### Effect of HPCSG Intervention on Quality of Life (QOL)

The mean FACT-B score at each point of measurement are displayed in Table 3. A repeated measures ANOVA performed on QOL demonstrated a significant main effect for time ( $F=15.29$ ,  $p=.000$ ) and a significant time by group interaction effect ( $F=9.99$ ,  $p=.000$ ). (See Table 4)

Based on the result of one-way repeated measures ANOVA performed separately for each group, FACT-B scores changed over time among women in the intervention group ( $F=11.66$ ,  $p=.000$ ). In addition, post-hoc pair wise comparisons indicated that there were significant differences (1) between the FACT-B mean scores at T1 and T2 (mean difference = 8.34,  $p=.001$ ), (2) between scores at T2 and T3 (mean difference = 8.65,  $p=.002$ ), and (3) between scores at T1 and T3 (mean difference = 17.00,  $p=.000$ ). The FACT-B score for breast cancer women in the control group did not differ significantly over time.



## **Discussion**

Consistent with prior research,<sup>30-33</sup> the results of the current study demonstrate the positive effect of the psychosocial intervention on improvement in cancer patients' quality of life. The findings support the research hypothesis of this study in that Thai women facing with breast cancer diagnosis and treatment, who participated in HPCSG intervention, had significant improvement in quality of life and more engagement in HP behaviors, compared to those women who received usual care. A possible explanation is that the HPCSG intervention can enhance knowledge and skill to improve personal resources and self-efficacy, and reduce barriers to the use of HP behaviors. Using HP behaviors can in turn lead to improved QOL. Following breast cancer diagnosis, these women may find themselves motivated to make lifestyle change that could promote their health and well-being. It is also possible that many women reprioritized their life purpose and search for ways to make their healthier and more meaningful.<sup>34</sup> The current study's finding was in agreement with the study's result of Meraviglia<sup>4</sup> which found that breast cancer women added HP behaviors after cancer diagnosis, predominately by walking, maintaining positive attitude, and eating a healthy, balanced diet.

Moreover, a monthly telephone social support call provided by the investigator to each participant for three months as the second part of the intervention was helpful to follow up the participant's skill building, self-efficacy and capabilities in adjustment to illness and engaging lifestyle changes.<sup>18</sup> This finding was consistent with the result of a previous study<sup>35</sup> and supports the idea that telephone social support, if given for an appropriate time, is a cost-effective way of increasing QOL for patients with breast cancer. In addition, this information can be very helpful for oncology nurses working in treatment facilities with high patient/nurse ratio such as Thailand, to plan the follow up protocol as part of support group intervention

to help individuals cope better with cancer diagnosis both during and following treatment.

The findings of this study have revealed significant improvement in QOL and HP behaviors overtime across study periods both during week 5-7 of the program implementation (T2) and at six months (T3) of women participating in cancer support group interventions. This has demonstrated the effectiveness of the HPCSG intervention offered in the current study, not only a short term, but also long-term effect sustained over six months of follow-up period. The finding was in agreement to the literature review regarding support groups for cancer patients reported by Weis<sup>32</sup> which indicated that improvement in QOL from involvement in a support group could last 3-12 months. However, the finding was contradicted with a study of Lindemalmetal<sup>33</sup> who reported that improvement in QOL was not observed after 3 months of support group intervention. One possible reason for the long term effects in this study may be because the intervention group had receiving similar treatment regimen, with an only one patient at stage 4 cancer. In our view, another possible explanation is that the women were more engaged in HP behaviors from the intervention. However, there is limited literature on the effects of cancer support group intervention on HP behaviors. As recommended by Weis<sup>32</sup>, in the future more attention should be placed on support group interventions aimed at changing HP behaviors.

According to the current findings, the length of time of the five 90 minute session times in this study was adequate and appropriate for implementation in Thai women with breast cancer living in Bangkok where transportation and severe traffic problems were likely to be a barrier for participation in the entire program. A support group is accepted as an economical way of helping individuals with cancer cope with the disease and manage cancer-related distress. However, there are some difficulties in establishing effective cancer support groups for cancer survivors in Thailand. These difficulties are primarily because of the relative

lack of experience and low level of collaboration between nurses, oncologists, and psychologists. In addition, there is a need for equipping oncology nurses with education and training to provide effective psychosocial intervention. The training and experiences of nurses has demonstrated substantial impact on outcome that highlights the importance of services employing properly trained professionals<sup>36</sup> as documented in a Thai study on improved various outcomes (eg. QOL, self-care ability, satisfaction with care) of advanced practice nurse-led type 2-diabetes support group.<sup>37</sup> In the context of cancer care in Thailand, the experience and training of oncology nurses as a major cancer care provider are crucial in establishing effective cancer support group for Thai cancer survivors.

There was a number of strengths of this study. To our knowledge, this is a very first report on effectiveness of a cancer support group intervention with an emphasis on health promotion and wellness conducted in Thai patients with cancer. Data obtained from the current study can be used as fundamental information for designing a future research program regarding health promotion cancer support group intervention study to be conducted in cancer population in the Thai context. The use of longitudinal design allowed collecting of data over three time points that allows changes of QOL and HP behaviors from the impact of the HPCSG intervention both short-term and long-term.

### **Limitations**

The generalization of the results from this study is limited by the use of a non-random selection method for group assignment and a small sample size. Patient selection was limited to women with breast cancer who came to receive treatment at radiation therapy unit of the hospital. Despite these limitations, this study provides data across treatment trajectory for women with breast cancer. The findings are helpful for nurses

for making appropriate plans to assist women with recently diagnosed breast cancer to engage in HP behaviors and cope effectively with their cancer diagnosis and treatment.

### **Conclusion and Implications for Nursing Practice**

The findings obtained from this study have important implications for health care professionals when recommending HP behaviors for Thai women with breast cancer. As research strongly supports that engaging in HP behaviors can lessen the impact of cancer on health and improve their QOL and the rate of breast cancer survivors continuously increases, the issues in breast cancer survivorship and health-related quality of life (HR-QOL) as well as concept of health promotion for women with breast cancer should receive greater attention from health professionals particularly for nurses. In providing care for women facing with breast cancer diagnosis and stressful cancer treatment, therefore, nursing intervention should focus on both developing patients' skills for coping with cancer and its treatment, and on their skills for adapting to a chronic illness. In addition, support group allows nurses an opportunity to identify unmet psychosocial needs for individuals facing with cancer diagnosis and treatment. Importantly, nurses should promote cancer support group participation aiming at changing health-promoting behaviors for patients as a crucial part of their nursing care.

For further research, a comparative study using different support group techniques is recommended to determine the most effective health promotion support group intervention for increased engagement in HP behaviors and improvement of overall well-being in Thai women with breast cancer during and following treatment. Also, longitudinal cancer support group intervention research is deserved to determine the optimal length of intervention and the amount of time

that the long term effects of health promotion cancer support group on quality of life and other various health outcomes can be maintained.

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## การเพิ่มพฤติกรรมสร้างเสริมสุขภาพและคุณภาพชีวิตจากการเข้าร่วมกลุ่มสนับสนุนเพื่อนมะเร็งเต้านมของสตรีไทย

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**บทคัดย่อ :** การวิจัยกึ่งทดลองชนิด 2 กลุ่มแบบวัดซ้ำครั้งนี้ มีวัตถุประสงค์เพื่อศึกษาผลของการเข้าร่วมโปรแกรมกลุ่มสนับสนุนเพื่อนมะเร็งที่มุ่งเน้นการสร้างเสริมสุขภาพระยะเวลา 5 สัปดาห์ๆ ละ 1 ชม 30 นาที ร่วมกับการโทรศัพท์ติดตามต่อพฤติกรรมสร้างเสริมสุขภาพและคุณภาพชีวิตของสตรีหลังได้รับวินิจฉัยเป็นมะเร็งเต้านมระหว่างได้รับการรักษา กลุ่มตัวอย่างเป็นสตรีที่ได้รับการวินิจฉัยเป็นมะเร็งเต้านมจำนวน 59 คนระหว่างรับการรักษาโรคมะเร็งที่โรงพยาบาลมหาวิทยาลัยแห่งหนึ่งในกรุงเทพมหานครโดยจัดเข้ากลุ่มทดลอง 29 คน และกลุ่มควบคุม 30 คน ทำการเก็บรวบรวมข้อมูล 3 ครั้ง 1) ระยะก่อนเข้าโปรแกรมกลุ่มสนับสนุนเพื่อนมะเร็ง 2) ระยะ 1-2 สัปดาห์หลังจบโปรแกรมการเข้ากลุ่มและ 3) ระยะ 6 เดือนของการเข้าร่วมโปรแกรม เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลได้แก่แบบประเมินพฤติกรรมสร้างเสริมสุขภาพ และแบบประเมินคุณภาพชีวิตวิเคราะห์ข้อมูลโดยสถิติ Repeated measures ANOVA

ผลการศึกษาพบว่าคะแนนเฉลี่ยพฤติกรรมสร้างเสริมสุขภาพและคะแนนเฉลี่ยคุณภาพชีวิตของสตรีโรคมะเร็งเต้านมที่เข้าร่วมกลุ่มสนับสนุนเพื่อนมะเร็งเพิ่มขึ้นอย่างมีนัยสำคัญทางสถิติ ทั้งผลในระยะสั้น 1-2 สัปดาห์หลังจบการเข้ากลุ่ม (สัปดาห์ที่ 5-7) และผลระยะยาว (6 เดือน) เมื่อเปรียบเทียบกับกลุ่มควบคุมที่ได้รับการดูแลตามปกติ ผลการศึกษานี้ชี้แนะว่าโปรแกรมสนับสนุนเพื่อนมะเร็งที่เน้นการสร้างเสริมพฤติกรรมสุขภาพมีประสิทธิผลต่อการปรับเปลี่ยนพฤติกรรมสุขภาพที่เหมาะสมและการเพิ่มคุณภาพชีวิตของสตรีไทยหลังการวินิจฉัยเป็นมะเร็งเต้านมระหว่างรับการรักษาและติดตามผลพยาบาลควรถือเป็นหน้าที่สำคัญในการส่งเสริมให้ผู้ป่วยมะเร็งเข้าร่วมกลุ่มสนับสนุนเพื่อนมะเร็งร่วมกับการสร้างเสริมสุขภาพ

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