

Effects of Social Support Program on Resilience and Quality of Life of Patients with Cancer in Community, Nakhon Si Thammarat Province

Naruemon Chuenchoksant¹, Saifon Aekwarangkoon^{2,*}, Naiyana Noonil²,
Pikuntip Kunset² and Rachadaporn Jantasuwana²

¹*Master of Nursing Science in Community Nurse Practitioner, School of Nursing,
Walailak University, Nakhon Si Thammarat 80160, Thailand*

²*School of Nursing, The Excellence Center of Community Health Promotion, Walailak University,
Nakhon Si Thammarat 80160, Thailand*

(*Corresponding author's e-mail: asaifon@wu.ac.th)

Abstract

This study aimed to investigate the effects of a social support program on resilience and quality of life among cancer patients in the community. The sample consisted of 84 cancer patients divided into experimental and control groups, with 42 participants in each group. The experimental group received the social support program, while the control group received the usual care. The research instruments consisted of a social support program, a manual, a personal and health status questionnaire, a resilience scale, and a quality-of-life scale. Data were analyzed using frequency, percentage, mean, standard deviation, and ANOVA Repeated Measures. The findings revealed that: 1) In the experimental group, the mean resilience score after the program was significantly higher than before and during the experiment ($p < 0.001$, $F = 49.879$). In the control group, the post-experiment score was also significantly higher than during and before the experiment ($p < 0.001$, $F = 7.476$). 2) In the experimental group, the mean quality of life score was significantly higher after the program than before and during the experiment ($p < .001$, $F = 25.139$). In the control group, the mean quality of life score after the experiment was higher than before but lower than during the experiment, with no statistically significant difference ($p > .05$, $F = 2.853$). 3) The comparison of mean scores for resilience and quality of life before, during, and after the experiment between the experimental and control groups showed that the mean resilience score in the experimental group was significantly higher than in the control group both during and after the experiment ($p < 0.001$). For quality of life, the experimental group had a significantly higher score than the control group during the experiment ($p < 0.01$). However, when comparing the scores during and after the experiment, the mean scores of both groups were not significantly different ($p > 0.05$). The findings suggest that the social support program positively impacts resilience and quality of life for cancer patients in the community. Community nurses and relevant stakeholders should continue implementing such programs to support cancer patients.

Keywords: Social support, Resilience, Quality of life, Cancer patients, Community

Introduction

Cancer is the second leading cause of death worldwide, with Asia having the highest incidence and mortality rates. By 2040, cancer-related cases are expected to increase by 40.80 %, placing even more strain on healthcare systems (World Health Organization, 2020). In Thailand, the cancer burden is substantial, affecting 291.40 people per 100,000 and causing a mortality rate of 190.86 per 100,000. These figures are expected to double within the next five years, posing significant challenges to medical care and prevention efforts (Ministry of Public Health, 2020). More specifically, in Nakhon Si Thammarat, cancer mortality has steadily risen from 92.27 to 100.17 per 100,000 between 2019 and 2022 (Nakhon Si Thammarat Provincial Public Health Office, 2023). Common cancer types such as breast, cervical, and lung cancer have demonstrated varied trends in terms of their impact on the local population. Notably, cancer has remained the leading cause of death in the region for the past five years. In 2023, there was also a marked increase in palliative care patients, underscoring the growing need for end-of-life care services as part of the region's healthcare response (Nakhon Si Thammarat Provincial Public Health Office, 2023). This rising trend emphasizes the critical need for improved cancer prevention, diagnosis, and palliative care services.

Cancer affects individuals, families, society, the economy, and the healthcare system. For individuals, the illness leads to a decline in organ and nerve function, resulting in symptoms such as fatigue, weight loss, weakened immune function, and pain, particularly in advanced stages. These physical challenges are often compounded by emotional distress, including anxiety, fear of death, and depression, which significantly diminish the patient's quality of life (Chaiwong et al., 2024). For families, the diagnosis of cancer brings intense grief, anxiety, and stress as they navigate the emotional and financial burden of caring for their loved ones (Savisit, 2023). On a societal and economic level, the cost of cancer treatment places a significant financial strain on both patients and their families, which in turn affects their overall quality of life. This financial burden often compromises the effectiveness of palliative care in advanced cancer stages, making it more challenging for families to access the care and support they need (Wongketkit et al., 2022). The growing cancer burden also places immense pressure on the healthcare system. From 2016 to 2018, cancer treatment expenses amounted to 26.68 billion THB, steadily increasing yearly (National Health Security Office, 2023). Cancer treatment in 2025 is projected to account for 5 % of the healthcare budget, highlighting the escalating strain on national resources (National Health Security Office, 2023). As cancer continues to be the leading cause of death both globally and within Thailand (World Health Organization, 2020), the absence of proper support for patients and their families will only exacerbate these challenges, further impacting the well-being of individuals and the stability of the healthcare system.

Resilience is crucial in managing the severity and prognosis of cancer, as it directly influences how both patients and their families cope with the physical, emotional, and psychological challenges of the disease (Savisit, 2023). When a cancer diagnosis is made, individuals often experience intense stress, anxiety, and fear, which are frequently accompanied by physical symptoms such as nausea, fatigue, and insomnia, as well as emotional distress like guilt, depression, and helplessness.

(Meecharoen et al., 2018; Suntharnon et al., 2020). These emotional and physical reactions can have a profound negative impact on self-care practices, resilience, and the overall quality of life for the patient (Nayak et al., 2017). Without strong emotional and practical support from healthcare professionals, the patient's condition can deteriorate further, compounding the challenges they face. Supportive care is essential in helping cancer patients navigate these crises by offering emotional and psychological relief, alleviating fear, and improving their quality of life (Nayak et al., 2017; Savisit, 2023). Social support, in particular, is vital in managing distress, strengthening resilience, and improving overall well-being during the cancer journey. Patients and their families benefit from comprehensive knowledge about the disease, treatment options, prognosis, and strategies for managing self-care, which empowers them to take control of their health and reduce uncertainty (Pakdevong et al., 2022). Nurses, in particular, are pivotal in providing this support, fostering emotional strength, and helping patients find meaning, hope, and quality in their lives despite their diagnosis (Panuraj et al., 2018). Studies have consistently shown that resilience is associated with improved coping mechanisms and an enhanced quality of life, helping patients better manage the physical and emotional challenges of cancer, such as pain, anxiety, and depression (Ruiz-Rodríguez et al., 2022). In this regard, social support encompasses various forms such as appraisal, informational, instrumental, and emotional support, which help patients set treatment goals, manage symptoms, and maintain emotional well-being, all of which are essential components of resilience (House, 1985). Research also highlights that social support is critical in predicting self-care behaviors, often leading to better outcomes than standard nursing care (Homjandee & Dangdomyouth, 2019). A comprehensive support program that incorporates experiential learning, accurate and reliable information, physical care, emotional support, and continuous follow-up can significantly enhance recovery and well-being for cancer patients, helping them navigate their journey more effectively (Panuraj et al., 2018; Sayilan & Dogan, 2020). Such programs promote optimal recovery, empowering patients and their families with the tools, knowledge, and emotional support necessary for long-term well-being.

The research highlights the critical role of healthcare professionals, health systems, and communities in supporting cancer patients and their families with knowledge about the disease, prognosis, treatment, self-care, symptom management, mental health care, and access to health services. This support helps patients cope with illness and adapt, from the early stages to palliative care, enhancing resilience and quality of life. Nurses are key in helping patients and families adjust throughout the illness trajectory, promoting health, quality of life, and dignified death (Roy & Andrews, 1999). Based on House's (1985) social support framework, this study aims to develop a social support program addressing physical, mental, social, and spiritual needs, including appraisal, informational, emotional, and resource support. The findings reveal gaps and offer suggestions to improve support, with few experimental studies on community-based social support programs. In line with the Ministry of Public Health's cancer service plan, Nakhon Si Thammarat Province strives to implement policies that strengthen support for cancer patients' resilience and quality of life. As a

community health nurse, the researcher aims to develop a social support program to improve cancer patients' resilience and quality of life in Nakhon Si Thammarat.

Research objectives

- 1) To compare the mean scores of resilience and quality of life within the experimental and control groups before, during, and after receiving the social support program.
- 2) To compare the mean scores of resilience and quality of life between the experimental and control groups between and after receiving the social support program.

Methodology

A quasi-experimental study with a two-group, time-series design (pre-treatment, 8 weeks, and 12 weeks) was conducted to examine the effects of a social support program on mental resilience and quality of life among cancer patients in the community.

Subjects

The study includes cancer patients (ICD-10 C00-D48) receiving ongoing treatment, aged 25-60, residing in Nakhon Si Thammarat from October 11 to December 31, 2023. Inclusion criteria: 1) Cancer diagnosis and ongoing treatment; 2) Aged 25-60; 3) ADL score > 11 ; 4) Mini-Cog score > 3 ; 5) Able to communicate in Thai; 6) Willingness to participate. Exclusion criteria: 1) Remission status; 2) Severe illness or hospitalization > 1 week; 3) Psychiatric disorders; 4) No communication devices; 5) Participation in other health-related studies; 6) Inability to complete the study. The sample size was calculated using G*Power 3.1.9.7 (Memon et al., 2020) with a medium effect size of 0.80, $\alpha = 0.05$, and power = 0.95 (Cohen, 1992). A one-tailed test resulted in 35 participants. To account for dropouts, 20 % was added, yielding 42 participants per group, for 84 (42 experimental, 42 control). The sampling procedure involved: 1) Dividing Nakhon Si Thammarat into 23 districts and randomly selecting two: Chawang (control) and Thung Yai (experimental). 2) Randomly selecting 3 SHPHs per district: Chawang (Ban Nasai, Ban Khon Suwan, Ban Than Pho) and Thung Yai (Ban Sai Ra, Ban Nong Yai, Ban Klong Phriang). 3) Matching groups by age, gender, education, disease duration, cancer type, and stage.

Instrumentation

The research instruments consisted of two parts:

Part 1: Instruments for research implementation

Social support program for cancer patients in the community

Developed by the researcher based on House's Social Support Framework (1985) and a literature review. The program covers four areas: 1) Appraisal Support: Goal setting, life needs, and care planning, 2) Information Support: Treatment and self-care (medication, chemotherapy, radiation, exercise, diet, and relaxation), 3) Instrumental Support: Coordination of necessary tools and

resources, and 4) Emotional Support: Mental health care (anxiety, depression), pain management, and physical discomfort. The program includes 5 sessions (40 - 90 min each) in weeks 1, 2, 4, 8, and 12, delivered through group activities, home visits, and phone follow-ups.

Social support manual for cancer patients in the community

Developed based on literature, this manual contains three sections: 1) Setting treatment goals, life needs, and care plans, 2) Information on treatment, self-care, and emotional support, and 3) Comparing expected outcomes based on treatment goals and patients' life needs.

Part 2: Instruments for data collection and evaluation

Personal and Health Status Questionnaire

Developed by the researcher, this includes 20 items on personal (e.g., age, gender, occupation) and health status (e.g., cancer type, treatment, pain level, comorbidities).

Resilience scale

Developed by the Department of Mental Health, Ministry of Public Health (2020), consists of 3 domains: Emotional stability with 10 items, morale with 5 items, and problem management with 5 items, totaling 20 items. The scale uses a 4-level measurement. The interpretation is provided for overall: Score less than 55: Below standard, score 55 - 69: Regular, and score greater than 69: Above normal.

Quality of life scale (WHOQOL-26)

Adapted from the WHO Quality of Life (WHOQOL-100), this includes 26 questions across four domains: physical, psychological, social relationships, and environment. It uses a 5-point scale to measure positive and negative items, with total scores ranging from 26 to 160. Quality of life is categorized as 26 - 60: Poor, 61 - 95: Moderate, and 96 - 130: Good.

The researcher evaluated the content validity of the personal and health status questionnaire, social support program, and manual for cancer patients with 5 experts: 2 nursing professors in cancer care, 1 in mental health, 1 doctor in community cancer care, and 1 community nursing expert. Validity scores ranged from 0.6 - 1 for the program and 0.8 - 1 for the manual. After revisions based on feedback, a trial was conducted with 5 cancer patients in Thamphannara district. For reliability, Cronbach's alpha was calculated, yielding values of 0.81 for the mental resilience scale and 0.86 for the quality of life scale with 30 patients.

Ethical consideration

The study was approved by Walailak University's Ethics Committee (Approval No. WUEC-24-224-01, September 9, 2024). Participants were informed of the study's purpose, procedures, potential benefits, and risks. They could voluntarily join or withdraw at any time without consequence. COVID-19 safety protocols were followed, and all data were kept confidential in a locked cabinet.

After 3 years, the data would be destroyed. Results would be published anonymously for educational and healthcare purposes. Participants provided written informed consent.

Data collection

Data collection consisted of three phases:

Preparation phase

After receiving ethics approval, the researcher obtained permission from relevant authorities, including hospital directors and public health offices. The researcher developed a social support program for cancer patients by reviewing empirical evidence, existing practices, and patient needs. Permission was also obtained from hospitals to acquire cancer patient lists. Participants were contacted at home to explain the research, and those who met the inclusion criteria were invited to participate and sign an informed consent form.

Implementation phase

The social support program was implemented for the experimental group in five sessions (40 - 90 min each) during weeks 1, 2, 4, 8, and 12, totaling 12 weeks. The control group received standard care from local health centers.

Evaluation phase

The program's effectiveness was evaluated at weeks 8 and 12 using the mental resilience and WHOQOL-BREF-THAI quality of life scales. After a one-day training workshop, the assessment was conducted by trained research assistants (professional nurses).

Data analysis

1) The demographic data of the sample were analyzed using descriptive statistics, including frequency distribution, percentage, mean, and standard deviation.

2) Comparison of mean scores differences in mental resilience and quality of life scores for the experimental group before the intervention, at week 8, and at week 12 were analyzed using ANOVA Repeated Measures.

Results and discussion

Results

The study included 84 participants, 70.20 % female and 29.80 % male, with an average age of 51.63 (S.D. 8.29) years. Most were aged 41 - 59 (72.60 %), Buddhists (98.80 %), married (69.00 %), and had primary school education (54.80 %). The majority were farmers (65.50 %) with an average family income of 13,280.71 (S.D. 11,458.48) baht. Most earned 5,000 - 10,000 baht monthly (34.50 %) and 40.50 % had enough income but no savings. Primary caregivers were spouses (51.20 %), with

83.30 % having a close bond with them. Comparison of data between the experimental and control groups showed no significant differences (**Table 1**).

Table 1 General information (N = 84).

General information	Total N (%)	Control n (%)	Experimental n (%)	χ^2	p-value
Gender				0.057	.811
Men	25 (29.80)	13 (52.00)	12 (48.00)		
Women	59 (70.20)	29 (49.20)	30 (50.80)		
Age Min 25 Max 60 Mean 51.63 SD .8.29				0.093 ^a	0.954
25 - 40	10 (11.90)	5 (50.00)	5 (50.00)		
41 - 59	61 (72.60)	30 (49.20)	31 (50.80)		
60	13 (15.50)	7 (53.80)	6 (46.20)		
Marital status				0.223 ^a	0.637
Married	58 (69.00)	30 (51.70)	28 (48.30)		
Single	26 (31.00)	12 (46.20)	14 (53.80)		
Education				1.830 ^a	0.401
Uneducated/Primary school	46 (54.80)	22 (47.80)	24 (52.20)		
Secondary school/Associate's degree	28 (33.30)	13 (46.40)	14 (53.60)		
Bachelor's degree	10 (11.90)	7 (70.00)	3 (30.00)		
Occupation				3.924 ^F	0.303
government pension	6 (7.10)	5 (83.30)	1 (16.70)		
Housework/Unemployed	4 (4.80)	2 (50.00)	2 (50.00)		
Agriculture	55 (65.50)	28 (50.90)	27 (49.1)		
Personal business/Employee/trade	19 (22.60)	7 (36.80)	12 (63.20)		
Family income per month Min 2,000 Max 58,700 Mean 13,280.71 SD 11458.48				0.739 ^a	0.864
< 5,000 Bath	21 (25.00)	9 (42.90)	12 (57.10)		

General information	Total N (%)	Control n (%)	Experimental n (%)	χ^2	p-value
5,001 - 10,000 Bath	29 (34.50)	16 (55.20)	13 (44.80)	5.050 ^a	0.168
10,001 - 15,000 Bath	14 (16.70)	7 (50.00)	7 (50.00)		
> 15,000 Bath	20 (23.80)	10 (50.00)	10 (50.00)		
Sufficiency of income				5.050 ^a	0.168
There's enough to keep	15 (17.9)	9 (21.40)	6 (14.3)	1.499 ^a	0.472
Enough, not left over	34 (40.5)	14 (33.30)	20 (47.6)		
Not enough, have debt	23 (27.40)	10 (23.80)	13 (31.0)		
Not enough, no debt	12 (14.3)	9 (21.40)	3 (7.1)		
Primary caregiver				1.499 ^a	0.472
Husband/Wife	43 (51.20)	21 (48.80)	22 (51.20)	0.000 ^a	1.000
Child	27 (32.10)	12 (44.40)	15 (55.60)		
Relative/Parents	14 (16.70)	9 (64.30)	5 (35.70)		
Relationship with caregivers				0.000 ^a	1.000
Bound close	70 (83.30)	35 (50.00)	35 (50.00)		
Normal	14 (16.70)	7 (50.00)	7 (50.00)		

Health condition data for the sample showed that 94.00 % had connective tissue cancer, followed by bone/bone marrow cancer and leukemia/lymphoma at 3.60 %. Most participants (46.40 %) were in stage 1 cancer, followed by stage 2 (28.60 %) and stage 3 (17.90 %). The majority (81.00 %) had been ill for 0 - 60 months, while 19.00 % had been ill for more than 61 months. Most participants (96.40 %) had no recurrence. Pain was absent in 48.80 %, mild in 35.70 %, and moderate in 11.90 %. Treatment methods included surgery (70.20 %), followed by chemotherapy (41.70 %) and radiotherapy (34.50 %). Comorbidities were most commonly high cholesterol (21.40 %), followed by high blood pressure (20.20 %) and diabetes (9.50 %). Comparison between the experimental and control groups showed no significant differences (**Table 2**).

Table 2 Health Status Information (N = 84).

General information	Total N (%)	Control n (%)	Experimental n (%)	χ^2	p-value
Type of cancer				4.204 ^F	.233
Carcinoma	74 (94.00)	38 (51.40)	36 (48.60)		
Sarcoma/Leukemia/Lymphoma/Brain and spinal cord tumors	10 (3.60)	4 (40.00)	6 (60.00)		
Stages of Cancer				4.204 ^F	.233
Stages 1	39 (46.40)	15 (38.50)	24 (61.50)		
Stages 2	24 (28.60)	15 (62.50)	9 (37.50)		
Stages 3	15 (17.90)	9 (60.00)	6 (40.00)		
Stages 4	6 (7.10)	3 (50.00)	3 (50.00)		
The duration of illness with cancer Max 240 Mon. Min 1 Mon. Mean 45.7857 SD 50.22				2.779 ^a	.095
0 - 60 Mons.	68 (81.00)	37 (54.40)	31 (45.60)		
More than 61 Mons.	16 (19.00)	5 (31.25)	11 (68.75)		
Recurrence of the disease				0.346 ^a	.557
No	81 (96.40)	41 (50.62)	40 (49.38)		
Yes	3 (3.60)	1 (33.33)	2 (66.37)		
Level of pain. Max 8 Min 0 Mean 1.6429 SD 2.28				3.351 ^F	0.361
No pain	41 (48.80)	19 (46.30)	22 (53.70)		
1 - 4	30 (35.70)	18 (60.00)	12 (40.00)		
5 - 7	10 (11.90)	3 (30.00)	7 (70.00)		
8 - 10	3 (3.60)	2 (66.70)	1 (33.30)		

General information	Total N (%)	Control n (%)	Experimental n (%)	χ^2	<i>p</i> -value
Types of treatment (multiple answers allowed)					
Surgery	59 (70.20)	29 (49.20)	30 (50.80)	0.57 ^a	0.811
Chemotherapy	35 (41.70)	18 (51.40)	17 (48.60)	0.049 ^a	0.825
Radiation	29 (34.50)	14 (48.30)	15 (51.70)	0.053 ^a	0.818
Etc. Brachytherapy, Targeted therapy	12 (14.30)	3 (25.00)	9 (75.00)	3.500 ^a	0.061
Comorbidities/Other chronic diseases (multiple answers allowed)					
DM	8 (9.50)	3 (7.10)	5 (11.90)	0.553	0.457
HT	17 (20.20)	6 (14.30)	11 (26.20)	1.844	0.175
CVD	2 (2.40)	1 (2.40)	1 (2.40)	0.000	1.000
DLP	18 (21.40)	3 (7.10)	15 (35.70)	10.182	0.001

The comparison of mean resilience and quality of life scores before, during, and after receiving the social support program within the experimental and control groups

The comparison of mean resilience scores within the experimental group showed that the post-program score (Mean = 71.29, S.D. = 6.10) was significantly higher than the during-program (Mean = 65.85, S.D. = 6.91) and pre-program scores (Mean = 61.98, S.D. = 6.84) ($p < 0.001$). In the control group, the post-test score (Mean = 62.88, S.D. = 5.33) was significantly higher than the during-program (Mean = 60.54, S.D. = 6.14) and pre-program scores (Mean = 59.22, S.D. = 6.75) ($p < 0.001$). For quality of life, the experimental group's post-program score (Mean = 101.85, S.D. = 11.07) was significantly higher than during-program (Mean = 96.56, S.D. = 10.43) and pre-program scores (Mean = 91.63, S.D. = 12.73) ($p < 0.001$). In contrast, the control group's post-test score (Mean = 92.82, S.D. = 10.50) was lower than during-program (Mean = 94.78, S.D. = 12.78) but higher than pre-program (Mean = 90.78, S.D. = 10.51), with no statistically significant difference ($p > 0.05$), as shown in **Tables 3** and **4**.

Table 3 The comparison of psychological resilience and quality of life scores before, during, and after receiving the social support program within the experimental group is as follows (N = 82).

Variable	Mean (SD)	Source	SS	df	MS	F value	Sig	Partial Eta squared
Resilience		0.918	1796.211	1.835	978.855	49.879	< 0.001	0.555
Pre	61.98 (6.84)							
During	65.85 (6.91)							
Post	71.29 (6.10)							
Quality of life		0.773	2141.902	1.545	1386.239	25.139	< 0.001	0.386
Pre	91.63 (12.73)							
During	96.56 (10.43)							
Post	101.85(11.07)							

* p -value < 0.05

Table 4 The comparison of psychological resilience scores before, during, and after receiving the social support program within the control group is as follows (N = 82).

Variable	Mean (SD)	Source	SS	df	MS	F value	Sig	Partial Eta squared
Resilience		0.907	281.561	1.895	148.597	7.476	0.001	0.157
Pre	59.22 (6.75)							
During	60.54 (6.14)							
Post	62.88 (5.33)							
Quality of Life		0.903	328.065	1.806	181.625	2.853	0.69	0.067
Pre	90.78 (10.51)							
During	94.78 (12.78)							
Post	92.82 (10.50)							

The comparison of mean resilience and quality of life scores before, during, and after receiving the social support program between the experimental and control groups.

The comparison of mean resilience scores showed no significant difference before the social support program between the experimental group (Mean = 61.98, S.D. = 6.84) and the control group (Mean = 59.22, S.D. = 6.75). During the experiment, the experimental group (Mean = 65.85, S.D. = 6.91) scored significantly higher than the control group (Mean = 60.54, S.D. = 6.14, $p < 0.001$). After the experiment, the experimental group (Mean = 71.29, S.D. = 6.10) again scored significantly higher than the control group (Mean = 62.88, S.D. = 5.33, $p < 0.001$). The comparison of mean quality of life scores showed no significant difference before the social support program between the experimental group (Mean = 91.63, S.D. = 12.74) and the control group (Mean = 90.78, S.D. = 10.51).

During the experiment, the experimental group (Mean = 96.56, S.D. = 10.43) had a significantly higher score than the control group (Mean = 94.78, S.D. = 12.78, $p < 0.01$). After the experiment, the experimental group (Mean = 101.85, S.D. = 11.07) still had a significantly higher score than the control group (Mean = 92.83, S.D. = 10.50, $p < 0.001$). However, the mean scores between the experimental and control groups showed no significant difference between during and after the experiment ($p > .05$).

Table 5 The comparison of average scores for mental resilience and quality of life before, during, and after receiving the social support program between the experimental group and the control group.

					95% CI for Difference ^b	
Variable		Mean difference	Std Error	Sig ^b	Lower Bound	Upper Bound
Resilience						
Pre	During	−2.598	0.697	0.001	−4.303	0.896
	Post	−6.488	0.740	< 0.001	−8.293	−4.678
During	Pre	2.598	0.697	0.001	0.893	−4.678
	Post	−3.890	0.560	< 0.001	−5.260	−2.521
Post	Pre	6.488	0.740	< 0.001	4.678	8.298
	During	3.890	0.560	< 0.001	2.521	5.260
Quality of life						
Pre	During	−4.463	1.239	0.002	−7.494	−1.433
	Post	−6.134	1.168	< 0.001	−8.990	−3.279
During	Pre	4.463	1.239	0.002	1.433	7.494
	Post	−1.671	0.873	0.178	−3.807	0.465
Post	Pre	6.134	1.168	< 0.001	3.279	8.990
	During	1.671	0.873	0.178	−0.465	3.807

Discussion

The study found that most participants were female, aged 41 - 59 years, aligning with studies by Kaewintah et al. (2024), who reported similar average ages. 69 % were married, consistent with Jeamboonsri, & Keawchandee (2023) and Kaewintah et al. (2024). Half had a spouse as their primary caregiver, matching Sukontawat et al. (2022) findings. Regarding education, 54.8 % had primary education, 65.5 % worked in agriculture, and the average monthly household income was 13,280.71 THB (S.D. = 11,458.48), with 40.5 % having enough income but no savings, consistent with previous studies.

The comparison of resilience scores within the experimental group before, during, and after the social support program showed a significant increase after the program (Mean = 71.29, S.D. = 6.10) compared to during (Mean = 65.85, S.D. = 6.91) and before (Mean = 61.98, S.D. = 6.84) ($p < 0.001$). This improvement is attributed to the comprehensive structure and mechanisms of the social support program, which aligned with the specific needs of cancer patients in the community. The

program focused on appraisal, informational, instrumental, and emotional support (House, 1985), aiming to enhance resilience through experiential learning in group and individual settings. Activities such as “Check-in: Getting to Know Each Other, Expectations, Project Explanation, and Creating Learning Agreements” helped build trust and safety, fostering a sense of positive change. Other activities like “My Journey with Illness” encouraged understanding and self-management of illness within a personal context, while “Empowering, Strengthening Resilience, and Improving Quality of Life” helped participants link resilience to finding meaning in their lives despite illness. Continuous follow-up through home visits and phone calls further solidified this support, guiding participants to set and achieve health-related goals that aligned with their personal values and needs. This approach echoes findings by Palang & Nuanual (2020), who emphasized that cancer patients, when supported by family, peers, and healthcare teams, can better adapt to the physical, emotional, and social challenges of their illness. Similarly, studies by Tasusee et al. (2019) highlighted that social support and resilience are positively linked to self-care behaviors, enabling cancer patients to overcome obstacles and navigate crises.

The comparison of resilience scores within the control group before, during, and after receiving standard care showed a statistically significant increase after the experiment (Mean = 62.88, S.D. = 5.33) compared to during (Mean = 60.54, S.D. = 6.14) and before (Mean = 59.22, S.D. = 6.75) ($p < 0.001$). This improvement can be attributed to the standard care approach, which included education on diet, medication management, side effects of chemotherapy and radiation, stress reduction techniques, and scheduled doctor visits. This care strategy provided cancer patients in the community with a sense of confidence and safety in their treatment, addressing their self-care needs effectively. This finding is consistent with Kaeoubon (2020) study, which found that specific knowledge tailored to the patient’s issues helped reduce anxiety, enhance emotional stability, boost morale, and improve health management capabilities. Similarly, a study by Phakdeewong et al. (2023) showed that accurate understanding of self-care led cancer patients to feel more confident and motivated in managing their health. Furthermore, research on the psychological mechanisms of cancer patients revealed that when ill, patients seek to create mental balance and hope for recovery, leading to more effective self-healing processes (Vilawan et al., 2022). Seeking information about self-care and exhibiting patience and resilience helped patients gain confidence and find ways to live with their illness, ultimately strengthening their resilience. The comparison of quality of life scores in the experimental group before, during, and after the social support program showed a significant improvement post-intervention (Mean = 101.85, S.D. = 11.07) compared to during (Mean = 96.56, S.D. = 10.43) and before (Mean = 91.63, S.D. = 12.73) ($p < 0.001$). The program, offering appraisal, informational, resource, and emotional support (House, 1985), helped patients maintain a meaningful quality of life despite illness. Activities like “My Journey with Illness” and continuous support through home visits and phone follow-ups enhanced self-care and confidence, leading to improved quality of life. These findings are consistent with studies by Wicheanpoon, & Jariya (2020), Wongyai et al. (2024), and Kaeoubon (2020). The comparison of quality of life scores in the control group showed no significant change ($p > 0.05$) post-intervention. After the intervention, the mean score (92.82, S.D. = 10.50) was lower than during the intervention (94.78, S.D.

= 12.78) but higher than before the intervention (90.78, S.D. = 10.51). This indicates that the standard care approach, which focused only on providing information about nutrition, medication, side effects, stress management, and doctor visits, was insufficient in improving the quality of life for cancer patients in the community. These findings are consistent with studies by Khawpong & Eamchunprathip (2024), and Buanjan et al. (2018).

The comparison of mental strength scores before, during, and after receiving the social support program showed significant improvements in both the experimental and control groups ($p < 0.001$). However, the experimental group showed significantly higher scores than the control group ($p < 0.001$). This suggests that while basic knowledge on self-care, medication, and stress management builds mental strength, social support enhances it by providing goal-setting, treatment planning, information, resources, and emotional support. These findings align with studies indicating that social support fosters resilience, hope, and positive mental strength in cancer patients. The comparison of quality of life scores between the experimental and control groups before, during, and after the social support program revealed that the experimental group had significantly higher scores during the experiment ($p < 0.01$). However, there was no significant difference between the scores during and after the experiment ($p > 0.05$). Social support was found to be a crucial factor in helping cancer patients achieve their treatment and life goals effectively (Khawpong & Eamchunprathip, 2024). The social support program's evaluation process boosted confidence, helped patients set treatment goals, develop self-care plans, and provided necessary resources and emotional support. This comprehensive approach proved more effective than standard care, which focused only on knowledge. These findings are consistent with studies by Jaisomkhom & Nubanjong (2023), and Sukontawat et al. (2022), all of which show that social support enhances self-management and quality of life in cancer patients.

Conclusions

The study concluded that the implementation of a social support program significantly enhanced the resilience and quality of life of cancer patients in the community. The experimental group showed notable improvements in both resilience and quality of life, with significantly higher scores compared to the control group during and after the program. Social support played a crucial role in helping patients set treatment goals, create self-care plans, and increase confidence through continuous support, such as home visits and follow-up calls. It is recommended that primary healthcare nurses adopt social support programs to strengthen cancer patients' resilience and quality of life, and that healthcare administrators develop policies to integrate such programs into patient care. Future research should focus on optimizing these programs to reduce time and costs while maintaining long-term positive outcomes for patients, families, and healthcare systems.

Acknowledgements

The researchers would like to sincerely thank the cancer patients and their families for their cooperation, which contributed to the successful outcome of this research.

References

- Buanjan, O., Phet-Nui, T., & Sawatsing, T. (2018). Depression and quality of life in cancer patients in Mueang Chaiyaphum District, Chaiyaphum Province. *Nakhon Phanom University Journal*, Special Issue of the 25th Nursing Conference, 132-139.
- Chaiwong, N., Taoprasert, K., Na-Umong, N., Punfa, W., & Yaowaboot, H. (2024). Guidelines for mental health care by Lanna medicine to enhancing life quality of cancer patients. *Journal of Community Development and Life Quality*, 12(2), 178-188.
- Cohen, J. (1992). Statistical power analysis. *Journal Indexing and Metrics*, 1(3), 98.
- Department of Mental Health, Ministry of Public Health. (2020). *December 10 - National anti-cancer day*. Retrieved from <https://pr.moph.go.th/print.php?url=pr/print>
- Homjandee, J., & Dangdomyouth, P. (2019). Effects of community-focused social support Participation project on the burden of schizophrenia in the community patient caregiver. *Journal of the police nurse*, 11(2), 433-443.
- House, J. S. (1985). *Measures and concepts of social support*. Cohen, S., & Syme, S. L. (Eds.). Social support and health. New York: Academic press.
- Jaisomkhom, N., & Nubanjong, B. (2023). The effects of a care model for breast cancer patients who have undergone surgery in Chumphon Province. *Mahachulalongkornrajavidyalaya University Journal*, 10(2), 436-451.
- Jeamboonsri, W., & Keawchandee, C. (2023). The effectiveness of a program applying self-efficacy theory in conjunction with social support on the complication prevention behaviors of colorectal cancer patients with stomas. *Journal of Health Sciences, Boromarajonani College of Nursing, Sapphasitthiprasong*, 7(1), 80-90.
- Kaeoubon, J. (2020). The effectiveness of an information provision program on the quality of life of breast cancer patients who have undergone mastectomy. *Academic Journal of Maha Sarakham Provincial Public Health Office*, 4(7), 13-27.
- Kaewintah, Y., Padonsong, P., & Thammasit, C. (2024). *The effectiveness of information provision programs on the knowledge of cancer patients receiving chemotherapy at Lampang Cancer Hospital*. Lampang, Thailand: Lampang Cancer Hospital, Ministry of Public Health.
- Khawpong, A., & Eamchunprathip, S. (2024). Factors influencing the quality of life of lymphoma patients at Surat Thani Hospital. *Journal of Educational Innovation and Research*, 8(2), 674-686.
- Meecharoen, W., Kalated, T., & Nutra, K. (2018). Quality of Life of Cancer Patients Receiving Chemotherapy and their Family Caregivers. *Journal of Nursing and Health Care*, 36(4), 52-61.
- Ministry of Public Health. (2020). *December 10, National Anti-Cancer Day*. Retrieved from https://www.dms.go.th/Content/Select_Landding_page?contentId=30753
- Nakhon Si Thammarat Provincial Public Health Office. (2023). *Documents supporting government inspection and supervision in normal cases*. Nonthaburi, Thailand: Ministry of Public Health.
- National Health Security Office. (2023). *Guidelines for treating cancer in adults*. Retrieved from <https://shorturl.asia/DMFIm>

- Nayak, M. G., George, A., Vidyasagar, M., Mathew, S., Nayak, S., Nayak, B. S., Shashidhara, Y., & Kamath, S. (2017). Quality of life among cancer patients. *Indian Journal of Palliative Care*, 23(4), 445-450.
- Pakdevong, N., Muanjan, M., Intanin, J., & Kaewsuk, W. (2022). Knowledge and supportive care needs of advanced cancer patients receiving palliative chemotherapy: Nurse's roles. *APHEIT Journal of Nursing and Health*, 4(3), e2933.
- Palang, C., & Nuanual, P. (2020). Social support and adjustment of cancer patients receiving treatment at the National Cancer Institute: A case study. *Journal of Cancer*, 40(2), 62-75.
- Panuraj, S., Matchim, Y., & Thongthawee, B. (2018). *Palliative care knowledge of nurses in region 4 national health service area and its related factors*. In Proceedings of the 11 Srinakharinwirot University Research Conference, Bangkok, Thailand: Srinakharinwirot University.
- Phakdeewong, N., Muenjan, M., Inthanin, C., & Kaewsuk, W. (2023). Knowledge needs and support of patients with advanced cancer receiving palliative chemotherapy: The role of nurses. *Journal of Nursing and Health, SSAT*, 4(3), 1-12.
- Roy, C., & Andrews, H. A. (1999). *The Roy adaptation model*. New York: Appleton & Lange.
- Ruiz-Rodríguez, I., Hombrados-Mendieta, I., Melguizo-Garin, A., & Martos-Méndez. (2022). The importance of social support, optimism and resilience on the quality of life of cancer patients. *Original research*, 13, 833176.
- Savisit, W. (2023). Psychology and quality of life of the advanced cancer patients receiving palliative care in the community in the northeastern region of Thailand. *Primary Health Care Journal (Northeastern Edition)*, 38(1), 141-155.
- Sayilan, A. A., & Dogan, M. D. (2020). Illness perception, perceived social support and quality of life in patients with diagnosis of cancer. *European Journal of Cancer Care*, 29(4), e13252.
- Sukontawat, W., Summart, U., Dhanasilangkura, S., & Khoyun, S. (2022). The relationship between mental resilience and social support with self-care behaviors in the new normal era among cancer patients at Udonthani Cancer Hospital. *Journal of Health System Research and Development*, 15(3), 74-84.
- Suntharnon, N., Namvongprom, A., & Pakdevong, N. (2020). Distress and Quality of Life in Patients with Advanced Cancer Undergoing Chemotherapy. *Songklanagarind Journal of Nursing*, 40(1), 58-70.
- Tasusee, J., Juntarawijit, Y., & Khamboon, T. (2019). Factors related to the quality of life of cervical cancer patients in Kamphaeng Phet Province. *Nursing Journal*, 46(2), 13-23.
- Vilawan, J., Laokhomprattacharn, J., Laokhomprattacharn, T., Boonao, Y., & Boonserm, P. (2022). The effects of a quality of life promotion and depression prevention program in social and cultural aspects among the elderly in Nafai Sub-district, Mueang District, Chaiyaphum Province in 2020. *Journal of Health System Research and Development*, 15(1), 181-195.

- Wicheanpoon, O., & Jariya, W. (2020). Factors affecting the cervical cancer screening behavior of women aged 30-60 in Saklek District, Phichit Province. *Journal of Health System Research and Development*, 13(2), 250-258.
- Wongketkit, K., Wirojratana, V., & Chanruangvanich, W. (2022). Factors predicting quality of life among older adults with advanced cancer receiving palliative care. *Thai Journal of Cardio-Thoracic Nursing*, 33(1), 117-131.
- Wongyai, P., Rakchat, R., Rakchat, K., Sri-arun, K., & Chaitan, W. (2024). *The effectiveness of a home visitation program involving community networks on the quality of life and care outcomes in palliative and terminal cancer patients at Lampang Cancer Hospital*. Lampang, Thailand: Lampang Cancer Hospital, Department of Medical Services.
- World Health Organization. (2020). *Global cancer observatory*. Retrieved from <https://gco.iarc.fr/today/data/factsheets/cancers/39-All-cancers-fact>