

FACTORS AFFECTING QUALITY OF LIFE AMONG PATIENTS WITH POST-OPERATIVE BREAST CANCER IN ROI-ET PROVINCE, THAILAND

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ABSTRACT: This cross-sectional study included 250 post-operative breast cancer patients in Roi-et Province, Thailand. The study was intended to describe the participants' quality of life and perceived quality of health services, as assessed by standardized interviewer-administered questionnaires. Interviews were conducted in the surgical unit within 2 weeks after surgery. As part of the questionnaire, Health-related quality of life was assessed by using the WHOQOL-BREF. The study also assessed relationships between socio-demographic variables and quality of life score and service quality score. Most of the respondents had a moderate level of Quality of life (51.2%), followed by high (48.4%) and low (0.4%) level of quality of life post operative breast cancer, respectively. Service quality score and quality of life (QOL) score were positively and statistically significantly correlated ($r=0.569$, $p<0.001$). Age was not significantly related to either score. Education and income were significantly associated with both scores, but directions associations were not regular. Neither occupation nor presence of health problems in family members were significantly associated with either score. Both scores were significantly lower in participants in the 30-baht scheme than in those in other insurance schemes. Further research is needed to understand the observed associations with these scores. Generally, every effort should be made to improve health service quality and QOL for post-operative breast cancer patients. This should be a priority in both research and health policy formulation.

Keywords: a women/Factors/Breast cancer/Post operative/Health service/ Quality of life/Roi-Et Province/Thailand.

INTRODUCTION: Cancer is an important health problem. Report from American Cancer Society (2005)¹. In 2005, Incidence of breast cancer as 13.4% among normal population in USA. In Thailand found that cancer is the most common cause of death in 1999 – 2004. Death rate from cancer compared to other disease increases every year, rising from 11.0% to 12.9%. And in 2004, people diagnosed with breast cancer were 32.2% of all cancer (Ministry of Public Health, 2004) and data from Breast cancer National Institute (2004) found that new diagnosis of breast cancer is 10.7%. In this era, cancer is one of major health problems; metastases affect many organ systems and makes variety of medical problems, such as, CA cervix, breast cancer, CA colon and cholangiocarcinoma. From all of this, breast cancer is the 2nd leading

cause of death in women and affects quality of life among post-operative breast cancer patients.

MATERIALS AND METHODS: This was a cross-sectional study of 250 post-operative female breast cancer patients in Roi-Et hospital. The standardized questionnaire contained 3 parts: personal information, perceived quality of health services, and quality of life (taken from the WHOQOL-Bref). In a pre-test of the questionnaire, Chronbach's alphas were 0.729 and 0.766, respectively, for service quality of life QOL. Analysis employed the descriptive statistics percentage, mean, and standard deviation. Overall scores for health service quality and QOL were calculated. Associations of independent variables with these scores were tested with independent-samples t-test and one-way analysis of variance (ANOVA). The

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Table 5: (Cont.) Relationship between occupation and service quality score, and occupation and quality of life score, analyzed by one-way ANOVA (n= 250)

Variable	Occupation	N	Mean score	SD	P-value
QOL score	Farmer	131	87.04	5.70	0.385
	Trade	75	87.21	5.25	
	Other	44	88.34	5.04	

Neither score was significantly associated with occupation ($p \geq 0.385$, Table 5).

Table 6: Relationship between insurance status and service quality score, and insurance status and quality of life score, analyzed by independent-samples t-test (n= 250)

Variable	Insurance status	N	Mean score	SD	P-value
SQS score	30-baht	225	21.37	2.56	0.007
	Other	25	22.84	2.53	
QOL score	30-baht	225	87.09	5.45	0.049
	Other	25	89.36	5.19	

Service quality score and quality of life score were significantly lower in participants in the 30-baht scheme than in those with other insurance plans ($p \leq 0.049$, Table 6).

DISCUSSION: This study has limitations. Service quality and QOL were measured within 2 weeks of surgery. These could change with longer time after surgery, as could observed associations of independent variables with service quality and with QOL. Also, type of surgery (e.g., mastectomy vs. lumpectomy), which can be an important determinant of QOL, was not analyzed in this study. Also, as mentioned above, it is difficult to explain the directions of associations between scores and independent variables that were observed in this study. Further research is needed to explain these directions and to ascertain their generalizability. Improving health service quality and QOL for post-operative breast cancer patients is a very

important topic in public health. High priority should be placed on these goals, both in research and in health policy formulation.

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relationship between scores was tested with Pearson correlation.

RESULTS: Most the respondents were 40-59 years old (67.6%). Most had primary education (57.6%), were farmers (52.4%) had sufficient income: (51.6%), and were in the 30-baht insurance scheme (90.0%). The age distribution of respondents is shown in Table 1.

Table 1: The number and percentage of respondent by socio-demographic characteristics (n=250)

Data base	amount (n=250)	percentage
Age (Years)		
0- 19 years	1	0.4
20 – 39 years	35	14.0
40 – 59 years	169	67.6
60 – 79 years	43	17.2
>80 years	2	0.8

Table 2: Number and percentage of respondents by level of health quality of life measured by WHOQOL-BREF (n=250)

Quality of life Level

Quality of life Level	Number	Percentage
Good (96-130)	121	48.4
Middle(61 – 95)	128	51.2
Poor (26-60)	1	0.4

Most of the respondents had a middle level Quality of life (51.2%), followed by good (48.4%) and poor (0.4%) levels in post operative breast Cancer (Table 2). The mean service quality score was 21.5 ± 2.6 , of a maximum possible score of 27. The mean QOL score was 87.3 ± 5.5 , of a maximum possible score of 130.

Relationship between SQSCORE – relate Quality of life score and respondents characteristics analyzed by Correlations test (n= 250)

The Pearson correlation between service quality score and QOL score was 0.569 ($p < 0.001$), indicating a positive and statistically significant relationship between the scores.

Table 3: Relationship between educational level and service quality score, and educational level and quality of life score, analyzed by one-way ANOVA (n= 250)

Variable	Educational Level	N	Mean score	SD	P-value
SQS score	Primary	153	21.79	2.62	0.005
	Secondary	75	20.73	2.55	
	Other	22	22.27	1.93	
QOL score	Primary	153	87.93	6.07	0.007
	Secondary	75	85.69	4.00	
	Other	22	88.59	3.98	

In One-way analysis of variance (ANOVA), educational level was significantly associated with both scores ($p \leq 0.007$), but directions of associations were not regular. These scores were highest by a small amount in the highest education category (Table 3).

Table 4: Relationship between income and service quality score, and income and quality of life score, analyzed by one-way

Variable	Income level	N	Mean score	SD	P-value
SQS score	Surplus	20	23.50	2.01	<0.001
	Enough	129	19.98	2.19	
	Not enough	101	23.09	1.87	
QOL score	Surplus	20	92.15	8.23	<0.001
	Enough	129	84.10	3.88	
	Not enough	101	90.48	3.73	

Scores were significantly associated with reported income ($p < 0.001$), but directions of associations were not regular. For unclear reasons, scores were lowest at the middle income level (Table 4).

Table 5: Relationship between occupation and service quality score, and occupation and quality of life score, analyzed by one-way ANOVA (n= 250)

Variable	Occupation	N	Mean score	SD	P-value
SQS score	Farmer	131	21.63	2.63	0.579
	Trade	75	21.25	2.43	
	Other	44	21.64	2.78	