

Association between Treatment-Related Symptoms and Quality of Life among a Sample of Patients with Breast Cancer

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Background

- Patients with breast cancer receiving disease related treatments might trigger early onset of menopause and lead to early exposure of menopause related symptoms.
- Healthcare professionals need to pay attention to symptoms experienced by patients with breast cancer and provide adequate management because unrelieved symptoms can lead to serious consequences.

Aim of study

- To investigate treatment-related symptoms.
- To explore association between treatment-related symptoms and health-related quality of life (HRQL).

Study design, sample and data analysis

- **Study design:** A cross-sectional study.
- **Sample:** 200 Taiwanese women with breast cancer were recruited.
- **Instrument:** Descriptive statistics was used to demonstrate participants' individual characteristics, BCPT symptom scores, and HRQL. Association between treatment-related symptoms and HRQL was examined by Pearson correlation.

Results

Mean age of the participants was 52.3 ± 8.9 years. The majority of participants were diagnosed with breast cancer between 1 to 5 years ($n = 140, 70.0\%$). Mean value of the BCPT symptom score was 12.3 ± 10.1 . The top five symptoms frequently experienced by participants were forgetfulness, joint pains, tiredness, unhappy with the appearance of body, and muscle stiffness. The mean HRQL score at 8 domains ranged from 65.1 to 83.0. Associations between treatment-related symptoms and HRQL (8 domains/PCS/MCS) were significant ($r = -.15 \sim -.67, p < 0.01$): participants who experienced severer symptoms (higher symptom scores) reported lower HRQL.

Table 1. Individual characteristics (n = 200)

Variable	n	%	
Age (Range: 27-80y; mean=52.3, SD= 8.9)			
< 50	90	45.0	
≥ 50	100	55.0	
Time since diagnosis of cancer			
<1 year	17	8.5	
1-5 years	140	70.0	
6-10 years	38	19.0	
11-15 years	5	2.5	
Treatment(s) received			
Surgery	No	4	2.0
	Yes	196	98.0
Chemotherapy	No	67	33.5
	Yes	133	66.5
Radiotherapy	No	124	62.0
	Yes	76	38.0
Target therapy	No	162	81.0
	Yes	38	19.0
Endocrine therapy	No	35	17.5
	Yes	165	82.5

Table 2. Health related quality of life of breast cancer patients

Components	Mean	SD
Physical functioning	83.0	17.6
Role limitation due to physical problems	78.7	36.0
Bodily pain	78.1	19.9
General health	66.5	21.6
Vitality	65.1	18.1
Social functioning	81.1	18.9
Role limitation due to emotional problems	67.4	39.9
Mental health	70.5	15.1

Table 3. Correlations between BCPT symptom and SF-36

	SF-36 Physical component summary	SF-36 Mental component summary
Hot flash	-.221**	-.290**
Nausea	-.284**	-.322**
Bladder control	-.235**	-.230**
Vaginal problems	-.529**	-.669**
Musculoskeletal pain	-.535**	-.434**
Cognitive problems	-.439**	-.509**
Weight problems	-.154*	-.179*
Arm problems	-.355**	-.276**
weak factor	-.238**	-.260**
fatigue	-.487**	-.537**
sexual interest	-.209**	-.240**

** .p < 0.01.

* . p < 0.05.

Conclusion

Study results demonstrated that some symptoms related to the menopause were prevalent among patients with breast cancer, and treatment-related symptoms might have a negative influence on HRQL. Healthcare professionals should pay attention to the symptoms which could not be identified in common symptom assessment scales. Beneficial interventions such as counseling services or exercise therapy could be provided to improve treat-related symptoms for patients with breast cancer.

