

***Anxiety and Return to Work in Breast Cancer Patients Receiving Outpatient  
Chemotherapy***

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**Abstract**

This study aimed to clarify the differences of anxiety among breast cancer patients receiving outpatients chemotherapy according to their employment status. Twenty-eight breast cancer patients being treated by outpatients chemotherapy were recruited. A questionnaire was used to survey the attributes, employment status, and level of anxiety in these patients based on the Cancer-chemotherapy Concerns Rating Scale (CCRS). Data from three groups (an employed group, an intermittent employed group, and a not employed group) were analyzed by multiple comparisons tests. Patients' mean age was  $55.1 \pm 9.9$  years. According to the CCRS findings, these following three parameters were different among three groups: "I always think my disease" ( $p < .007$ : employed vs not employed,  $p = .005$ ) and "I can't work (housework/schoolwork) " ( $p < .049$ : employed vs intermitted,  $p = .045$ ), sub-item of "own existence" ( $p < .024$ : employed vs not employed,  $p = .024$ ). This study revealed the characteristic of anxiety in patients with breast cancer according to their employment status. Being able to continue work is considered to enhance the social health of these patients. Predicting anxiety that was strongly experienced by employed patients and collecting information will help acquiring perspective in early nursing intervention.

Keywords: breast cancer, outpatient chemotherapy, anxiety, return to work

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## **Introduction**

In the past three decades, significant advances in the management of cancer have reduced cancer-related mortality rates and thereby increased the number of cancer survivors (Hewitt et al., 2003; Lakdawalla et al., 2010). The development of outpatient chemotherapy has increased the working population of patients with cancer who are undergoing cancer therapy. However, a significant number of cancer survivors experience physical, psychological, and social problems. There is a decrease in income due to job change and work time reduction which is not desired by treatment. The issue of working is an economic problem and is directly connected to quality of life (QOL) in a working population. Physical suffering and psychological distress increase due to side effects of chemotherapy. This study aimed to clarify the differences of anxiety among breast cancer patients receiving outpatients chemotherapy according to their employment status.

## **Conclusion**

Twenty-eight breast cancer patients being treated by outpatients chemotherapy were recruited. A questionnaire was used to survey the attributes, employment status, and level of anxiety in these patients based on the Cancer-chemotherapy Concerns Rating Scale (CCRS) (Kwon et al., 2016). Data from three groups (an employed group, an intermitted employed group, and a not employed group) were analyzed by multiple comparisons tests. Statistical comparison of each CCRS subscale was performed using the Kruskal-Wallis test to analyze differences in scores for each employment status.

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This study revealed the characteristic of anxiety in patients with breast cancer according to their employment status. Being able to continue work is considered to enhance the social health of these patients. Predicting anxiety that was strongly experienced by employed patients and collecting information will help acquiring perspective in early nursing intervention.

		employed (n=14)		intermittently employment (n=5)		unemployed (n=9)		p-value
The 15 items of the Cancer-chemotherapy Concerns Rating Scale are divided into four subscales. The total score for each item was calculated.		36.0	21.0 - 47.0	29.0	20.0 - 35.0	33.0	20.0 - 42.0	0.272
【Disease progress】		5.5	3.0 - 8.0	8.0	8.0 - 12.0	5.0	3.0 - 8.0	0.180
【Reorganization of daily life】		10.5	6.0 - 18.0	8.0	6.0 - 14.0	11.5	6.0 - 16.0	0.385
【Self-existence】		10.5	9.0 - 12.0	8.0	8.0 - 12.0	8.5	6.0 - 11.0	0.024*
【Social and economy concerns】		7.5	3.0 - 11.0	6.0	3.0 - 9.0	8.0	3.0 - 9.0	0.532
Sub-item 【Disease progress】								
	I always think about my disease	4.0	3.0 - 4.0	3.0	2.0 - 4.0	3.0	2.0 - 3.0	0.007*
	I have anxiety about recurrence and metastasis	3.5	3.0 - 4.0	3.0	3.0 - 4.0	3.0	2.0 - 4.0	0.595
	My will-power and physical strength are decreased	3.0	2.0 - 4.0	3.0	2.0 - 4.0	3.0	1.0 - 4.0	0.242
Sub-item 【Reorganization of daily life】								
	I am not able to take care of myself	1.0	1.0 - 3.0	1.0	1.0 - 1.0	1.0	1.0 - 3.0	0.364
	I cannot maintain the rhythm of my daily life	2.0	1.0 - 3.0	1.0	1.0 - 4.0	1.0	1.0 - 2.0	0.478
	I cannot work (housework/schoolwork)	3.0	1.0 - 4.0	1.0	1.0 - 2.0	2.0	1.0 - 3.0	0.049*
Sub-item 【Self-existence】								
	I restrict my life	2.5	1.0 - 4.0	1.0	1.0 - 3.0	3.0	1.0 - 3.0	0.250
	I am restricted by my family's worry	1.5	1.0 - 4.0	1.0	1.0 - 4.0	2.0	1.0 - 3.0	0.958
	I feel alienated from society	1.0	1.0 - 4.0	1.0	1.0 - 2.0	1.0	1.0 - 3.0	0.560
	I do not feel like myself	1.5	1.0 - 4.0	1.0	1.0 - 2.0	2.0	1.0 - 3.0	0.274
	I want to rely on someone or something	2.0	1.0 - 3.0	1.0	1.0 - 3.0	2.0	1.0 - 3.0	0.810
	I lost a human relationship	1.0	1.0 - 4.0	1.0	1.0 - 1.0	1.0	1.0 - 2.0	0.413
Sub-item 【Social and economy concerns】								
	I worry about my family's future	2.0	1.0 - 4.0	2.0	1.0 - 3.0	3.0	1.0 - 4.0	0.556
	I worry about not being able to fulfill my duties	2.5	1.0 - 4.0	1.0	1.0 - 3.0	3.0	1.0 - 4.0	0.206
	I worry about my financial future	3.0	1.0 - 4.0	3.0	1.0 - 3.0	2.0	1.0 - 4.0	0.991

\* p&lt;0.05

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