

Changes in Knowledge, Self-efficacy and Self-care in Gastrointestinal Cancer Patients receiving Chemotherapy Education

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INTRODUCTION

Cancer is the leading cause of death in Korea, and the number of cases and deaths from cancer increases each year. Gastric and colorectal cancers are ranked 1st and 4th, respectively. As chemotherapy treatment gradually shifts to outpatient care, the need for better self-care at home has increased for cancer patients. While the number of hospitals offering chemotherapy education is expanding, most hospitals provide chemotherapy education only one time before chemotherapy. However, there seems to be a limit to patient knowledge and self-care performance of 6 months under chemotherapy treatment.

OBJECTIVE

The purpose of this study was to confirm the effect of continuous chemotherapy education in gastrointestinal cancer patients by measuring their knowledge of chemotherapy, self-efficacy, and self-care behaviors over time. This research is a descriptive longitudinal research study.

METHODS

Self-report questionnaires were conducted sequentially: before chemotherapy education, and after 2 weeks, 2 months, and 4 months of chemotherapy education to 39 gastrointestinal cancer patients scheduled to undergo chemotherapy at a general hospital in Seoul. The knowledge and the self-care behaviors method developed by the researcher were based on the contents of the 'chemotherapy' booklet used in the hospital. The method developed by Park Young-shin and Kim eui-cheol(2008) was used for self-efficacy after obtaining the author's permissions. The collected data were analyzed by repeated measure ANOVA, and Bonferroni was performed as a post-test.

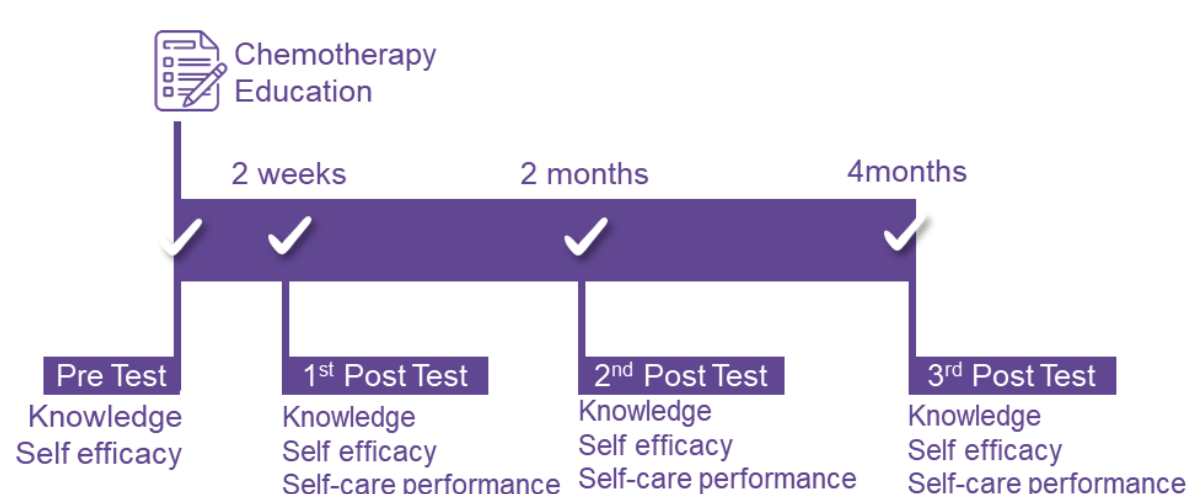


Figure. Research design of this study

RESULTS

1. The level of chemotherapy knowledge increased significantly after 2 weeks compared to before chemotherapy education ($F=4.601$, $p=.011$), but there was no statistically significant change in knowledge after 2 months and 4 months of education.
2. There was no statistically significant difference in self-efficacy before and after 2 weeks, 2 months, and 4 months of chemotherapy education.
3. After chemotherapy education, self-care behaviors significantly decreased after 4 months of education ($F=7.5333$, $p=.007$). Among the subscales of self-care behaviors, oral care ($F=5.791$, $p=0.014$) and symptom management ($F=6.083$, $p=.014$) significantly decreased after 4 months of education.

	pre test	post-test			F	p
		2 weeks(a)	2 months(b)	4 months(c)		
	Mean±SD					
Knowledge	6.79±1.42	7.62±1.14	7.41±1.46	7.31±1.4	4.601	.011 b>a
Self efficacy	40.38±4.82	41.64±4.06	40.85±4.94	41.05±5.07	1.08	0.348
Self-care behaviors	-	56.74±6.56	57.03±6.56	54.49±6.68	7.533	.007 a, b>c

Table. Changes of Knowledge, Self efficacy, Self-care behaviors According to Time Points

	post-test			F	<i>p</i>
	2 weeks(a)	2 months(b)	4 months(c)		
	Mean±SD				
Prevention of infection	13.36±1.53	13.67±1.34	13.49±1.35	1.093	.329 -
Oral care	7.77±1.42	7.90±1.29	7.36±1.29	5.791	.014* b>c
Management of symptom	19.15±2.77	19.26±2.81	18.13±2.86	6.083	.014* b>c
Nutrition & Daily life	16.31±2.58	16.21±2.57	15.51±2.73	4.746	.034 -

Table. Four Dimensions of Self-care Behaviors According to Time Points

CONCLUSIONS

The effect of education decreased as time passed after chemotherapy education. Thus, it is necessary to provide not only information but also repeated education and continuous intervention for proper self-care and health management of cancer patients undergoing chemotherapy.

