

The effects of Psychological Nursing Intervention Program on Psychological Distress and Quality of Life in Women with Breast Cancer Undergoing Chemotherapy

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INTRODUCTION

- Survival rate of Korean breast cancer patients continuously increased (90%, 2010)
- Most of breast cancer patients experience psychological distress during and/or end of treatment: psychological problem 23%, anxiety 40%, depression 17% (Mehnert & Koch, 2007), prevalence of depression after op. 45% (1 yr), 25%(2 yrs), 23% (3 yrs), etc. (Burgess et al., 2005)
- Psychological distress also decreases quality of life (QOL) of these patients
- Psychosocial intervention are proved to be effective to manage psychological distress and to increase QOL

PURPOSES

- To develop psychological nursing intervention (PNI) program for the breast cancer patients
- To evaluate the effect of PNI on psychological distress and QOL

METHODS

Research design: randomized controlled trial

	Pre- test	Intervention	1 st Post-test (T1: 6week)	2 nd Post-test (T2: 9week)
Exp.	E ₀	X	E ₁	E ₂
Con.	C ₀		C ₁	C ₂

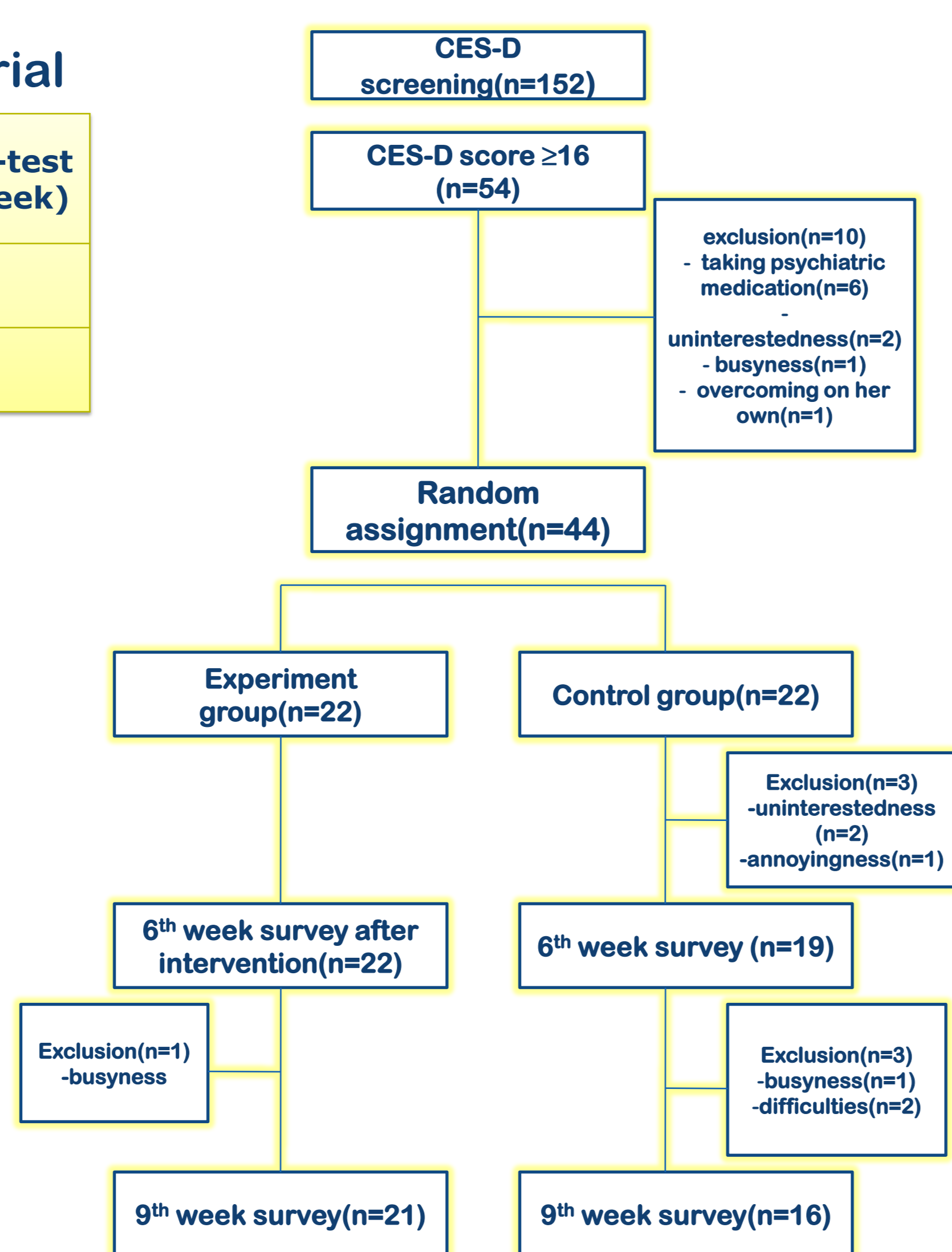
Subject: Women breast cancer patients undergoing chemotherapy

1. Inclusion criteria

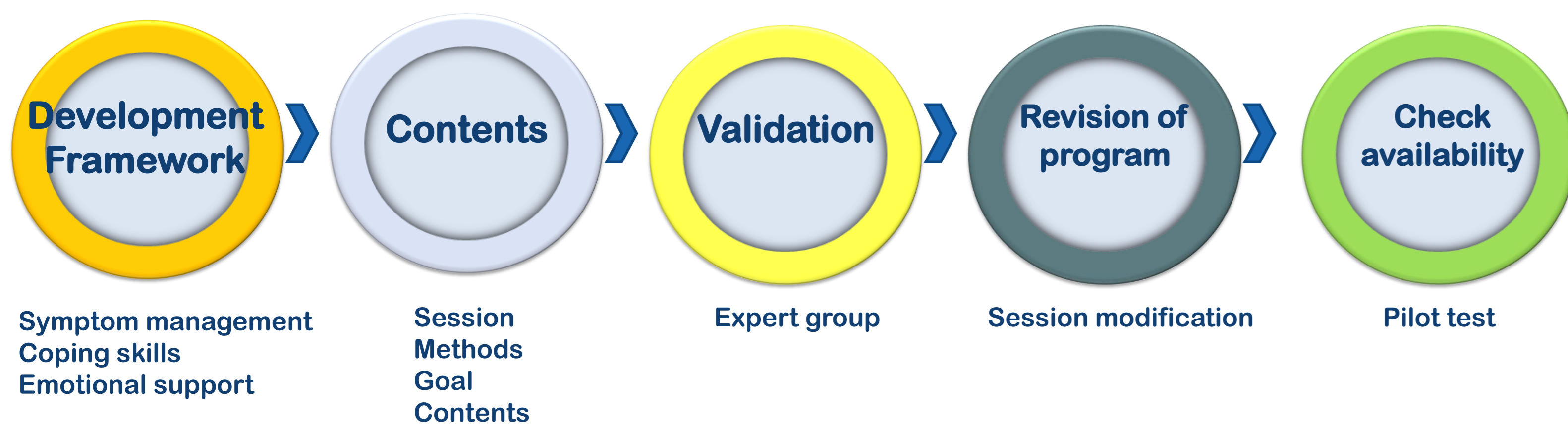
- Depression score (CES-D) >16
- Cancer stage I ~ III and scheduled to adjuvant chemotherapy
- >20 years old

2. Exclusion criteria

- History of psychiatric disease or taking psychiatric medications



Development of psychological intervention programs



Contents of psychological intervention program

Session	Method	Contents
1 st session (0week)	F	Developing rapport with patients Chemotherapy side effects and Symptom management
2 nd session (1week)	T	Symptom management education Cognition correction related body image and self conception
3 rd session (2week)	T	Symptom management education Cognition correction related body image and self conception Coping strategies with stress
4 th session (3week)	F	Symptom management education Coping strategies with stress Expression of the fear of recurrence Difficulties in personal relations & utilization of social resources
5 th session (4week)	T	Symptom management education Utilization of social resources Fear of recurrence
6 th session (5week)	T	Symptom management education Expression of the feeling related to sexual life & sharing experience
7 th session (6week)	F	Symptom management education Self acceptance & self reflection (Identification of Loss and Gain due to breast cancer) Sharing intervention experience & Termination

Intervention

- Start on the 1st day of chemotherapy
- 7 times, weekly
- Counseling 30~60 min by trained cancer center education nurse (completed certified coaching programs)
- Telephone counsel during home stay

Measurement

- Screening of high risk depression group: CES-D (Center for Epidemiologic Studies depression)
- Psychological distress
 - Mood: Korean version of Profile of Mood States-Brief (K-POMS-B)
 - Anxiety: The Hospital Anxiety Depression Scale (HADS)
 - Depression: The Hospital Anxiety Depression Scale (HAD)
- Quality of Life: European Organization for Research and Treatment of Cancer QLQ-30(EORTC QLQ-30)

RESULTS

Homogeneity test result : No significant difference

Variables		Experimental (n=22)	Control (n=22)	x ² /t	p*
		Mean ±SD	Mean ±SD		
Score of CES-D		25.50 ±4.84	26.14 ±8.20	-.313	.755
Medical period after diagnosis(days)		22.50 ±16.69	27.14 ±27.01	-.685	.497
Stage	I	5 (23%)	3 (14%)	.730	.790***
	II	10 (45%)	12 (55%)		
	III	7 (32%)	7 (32%)		
Operation	None	10 (45%)	9 (41%)	1.521	.606***
	BCO	10 (45%)	8 (36%)		
	MRM	2 (9%)	5 (23%)		
Menopause	Yes	5 (23%)	5 (23%)	.000	1.000**
	No	17 (77%)	17 (77%)		
Age	30s	1 (5%)	5 (23%)	5.212	.153***
	40s	13 (59%)	7 (32%)		
	50s	7 (32%)	7 (32%)		
	60s	1 (5%)	3 (14%)		
Marital status	Yes	21 (95%)	21 (95%)	1.000***	
	No	1 (5%)	1 (5%)		
Education	≤Middle school	3 (14%)	5 (23%)	5.950	.068***
	High school	13 (59%)	5 (23%)		
	≥College	6 (27%)	12 (55%)		
Religion	Yes	17 (77%)	18 (82%)	1.000***	
	No	5 (23%)	4 (18%)		
Job status	Yes	8 (36%)	6 (27%)	0.419	.747**
	No	14 (64%)	16 (73%)		
Economic burden	Yes	15 (68%)	14 (64%)		
	No	7 (32%)	8 (36%)		

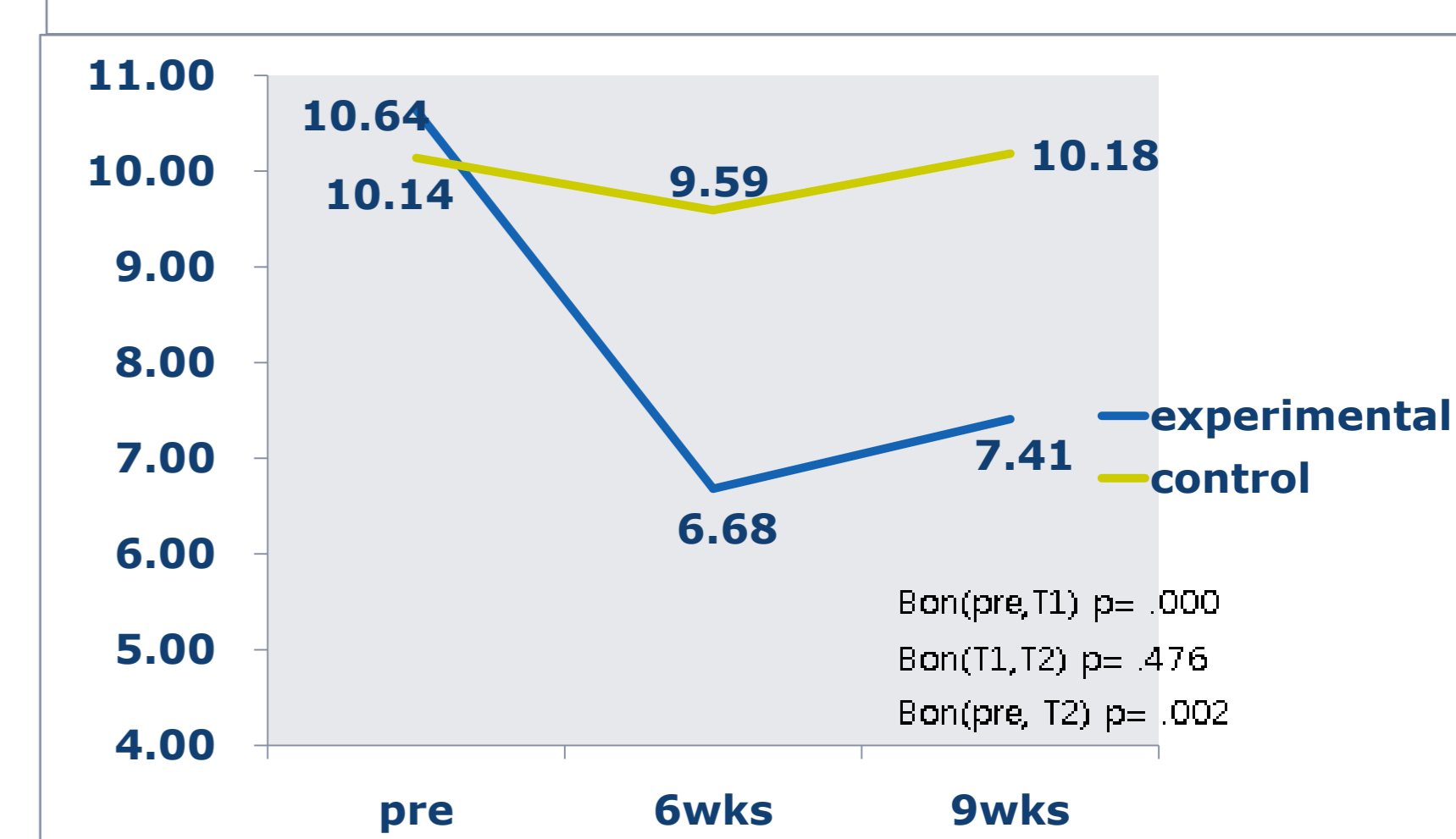
Variables		experimental(n=22)	control(n=22)	t/z	p*
		mean ±SD	mean ±SD		
POMS	Total mood disturbance score	61.73 ±18.71	60.32 ±14.48	0.28	0.78 **
HADS	anxiety	10.64 ±3.95	10.14 ±3.40	0.45	0.66 **
	depression	9.32 ±3.15	8.59 ±2.32	-0.04	0.97
EORTC QLQ-C30 (global health status/quality of life)		57.20 ±16.13	51.89 ±20.88	0.94	0.35 **

1. Hypothesis 1: "The experimental group which participated in the program will show lower psychological distress than the control group."

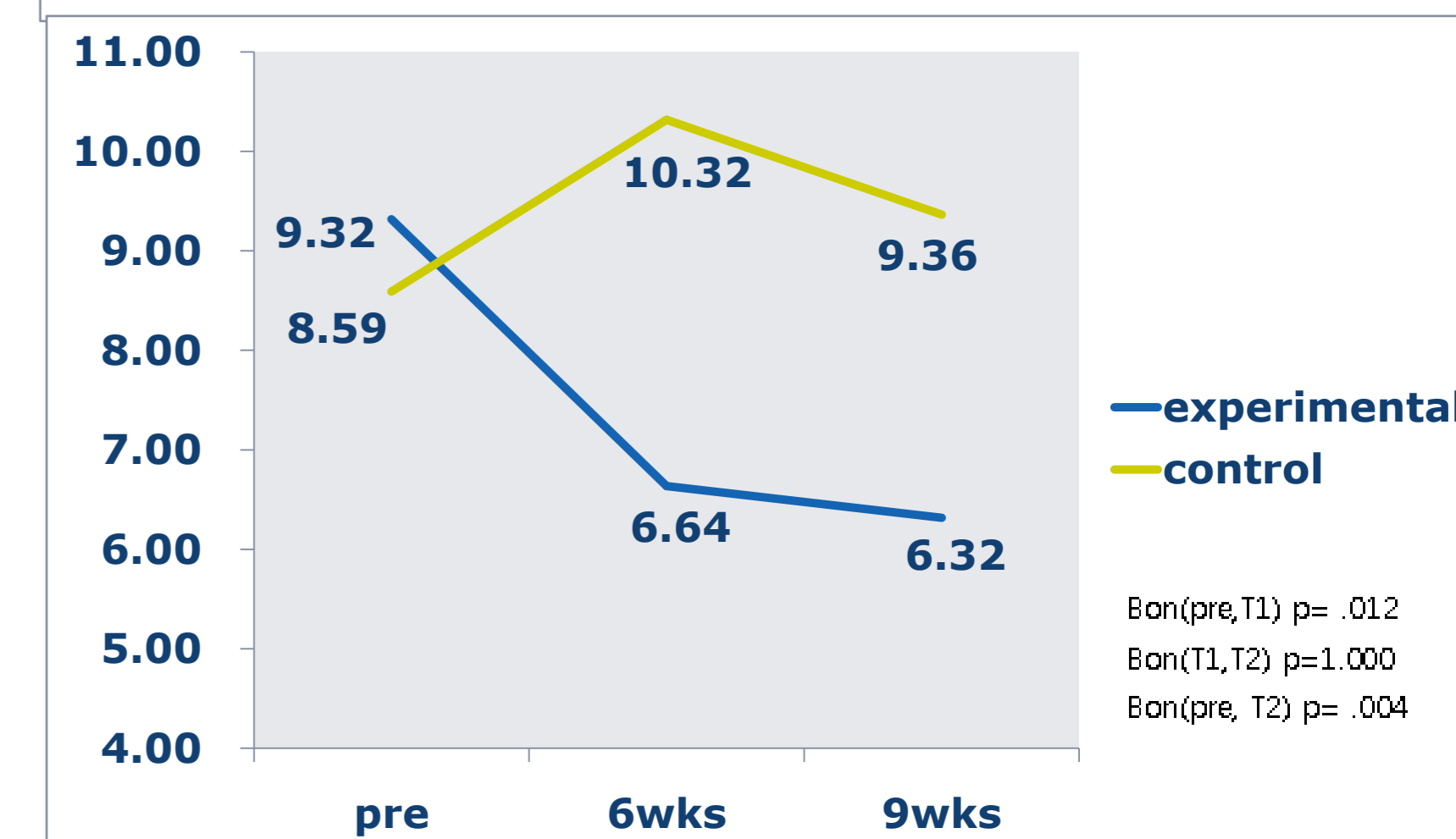
1) Hypothesis 1-1: "The experimental group which participated in the program will show more improved mood than the control group." was supported (F=7.290, p=0.003).



2) Hypothesis 1-2: "The experimental group which participated in the program will show lower anxiety level than the control group." was supported (F=7.770, p=0.002).



3) Hypothesis 1-3: "The experimental group which participated in the program will show lower depression level than the control group." was supported (F=11.921, p<.001).



2. Hypothesis 2: "The experimental group which participated in the program will show higher QOL than the control group." was not supported (F=1.144, p=0.313).

Group(N=44)	Pre Mean ±SD	6weeks Mean ±SD	9weeks Mean ±SD	F	P
Exp. (n=22)	57.20 ±16.13	65.53 ±13.44	64.02 ±16.33	group	7.99 0.007
Cont. (n=22)	51.89 ±20.88	47.73 ±21.08	48.86 ±23.18	group*time	0.29 0.707
					2.446 0.102

CONCLUSIONS

Psychological nursing intervention program for women breast cancer undergoing chemotherapy was effective for reducing psychological distress and improving some domain of QOL.

It was assumed that longer intervention period would be needed to confirm the effect of psychological intervention to the improvement of QOL in women breast cancer patients.