# An Effect of hand-on training for Female University students using the model of breast on the knowledge and techniques of breast self examination.

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## Background

According to the National Statistical Office (NSO), there are the number of women breast cancer in 2009
for 177 people in their 20s and 6,848 people in their 30s~40s per 100,000 population in Korea.

## Purpose

The purpose of this study was to determine the effectiveness of hand-on training using the model of breast on the knowledge and skills of breast self examination and to utilize the nursing interventions for the prevention of breast cancer

## Methods

### Study Design
This study was a pretest-posttest design with a non equivalent quasi-experiment  group.

### Participants
➢75 participants who are  university students
   • 38 for experimental group and 37 for control group
   • Don't  have  breast disease
   • No experience about breast self exam.

### Data  collection
   The training of breast self examination using the model of breast was provided for the experimental group and the training of breast self examination with the brochure was provided for the control group. The data collection was carried out from Oct 27 to Dec 12, 2012

### Instruments
➢Background characteristics of participants were measured using questions on age, BMI, intake  oral contraceptive, experience of hormone therapy, experience of  breast exam, family history, early examination, plan of self examination and menstrual cycle.

➢ Knowledge score of self breast examination were measured by 11 screening questionnaire.

➢ Skill score of self breast examination  assessment tool consisted of 11 items ( palpation method, screening direction,  procedure etc.).

### Data analysis
 Data were analyzed using paired t-test. To explore the difference of the effectiveness of hand-on training using the model of breast on the knowledge and skills of breast self examination .

## Results

 Checking the change of knowledge about breast self examination after the intervention, the experimental group using the model of breast increased to 1.92±1.83, the control group using brochure increased to 0.97±2.70, and there was no significant difference between the two groups (p=.079). As a result of the analysis of technical aspects' change about breast self examination after the intervention, the experimental group using the model of breast increased to 3.65±2.71, the control group providing brochure only increased to 1.78±3.32, and there was a significant difference between the two groups (p=.009).

Table 1. Demographic characteristics of the experimental and control group

| variable | | Exp(n=38) n(%) Mean±SD | Con(n=37) n(%) Mean±SD | x or t | p |
|---|---|---|---|---|---|
| age | | 19.78±1.29 | 20.24±1.57 | −1.332 | .176 |
| BMI | | 20.40±2.20 | 20.42±2.30 | −0.054 | .626 |
| Oral contraceptive | yes | 7(18.4) | 2(5.4) | 3.007 | .083 |
| | no | 31(81.6) | 35(94.6) | | |
| Hormone therapy | yes | 1(2.6) | 1(2.7) | 28.473 | .000 |
| | no | 37(97.4) | 36(97.3) | | |
| Breast disease | yes | 0(0) | 3(8.1) | 3.209 | .073 |
| | no | 38(100) | 34(91.9) | | |
| Family history | yes | 3(7.9) | 4(10.9) | 0.188 | .664 |
| | no | 35(92.1) | 33(89.1) | | |
| Early exam. | yes | 12(31.6) | 5(13.5) | 3.490 | .062 |
| | no | 26(68.4) | 32(86.5) | | |
| Plan of self exam. | yes | 32(84.2) | 28(75.7) | 0.853 | .356 |
| | no | 6(15.8) | 9(24.3) | | |
| Menstrual cycle | | 29.30(5.7) | 31.21(8.83) | −1.091 | .279 |

Table 2. Comparison of knowledge scores: Pre-post difference between experimental and control group

| Knowledge score | pre Mean±SD | post Mean±SD | Pre−post Mean±SD | t | p |
|---|---|---|---|---|---|
| Exp. | 7.02±1.44 | 8.94±7.64 | 1.92±1.83 | 1.781 | .079 |
| Cont. | 6.67±1.85 | 7.64±1.67 | .97±2.70 | | |

Table3. Comparison of skill scores: Pre-post difference between experimental and control group

| Knowledge score | pre Mean±SD | post Mean±SD | Pre-post Mean±SD | t | p |
|---|---|---|---|---|---|
| Exp. | 6.26±2.48 | 9.92±0.85 | 3.65±2.71 | 2.67 | .009 |
| Cont. | 6.64±2.69 | 8.43±1.67 | 1.78±3.32 | | |

## Conclusions

The hand-on training using the model of breast increases the techniques of breast self examination significantly than the training with only a simple brochure, thus, the training of self examination for prevention of breast cancer needs to go hand in hand with the hand-on training using the model.