



## EFFECT OF SIMULATION BASED BREAST SELF-EXAMINATION TECHNIQUES ON KNOWLEDGE AND SKILL IN PERFORMING BREAST SELF EXAMINATION AMONG WOMEN

### Nursing

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### ABSTRACT

The present study aims to assess the effect of simulation based Breast self-examination techniques on knowledge and skill in performing BSE among women. The main objectives of the study were, to assess the knowledge regarding Breast Self-Examination using knowledge questionnaire, determine the skill in performing BSE using BSE skill assessment checklist, find the effect of simulation based BSE techniques on knowledge and skill in performing BSE and identify the correlation between knowledge and skill in performing BSE. The research approach used for the study is quantitative approach. The study design was pre experimental, one group pre- test post - test. The data were collected using socio demographic proforma, knowledge questionnaire on breast self-examination and Breast Self-Examination skill assessment Checklist. The study was conducted among 50 women selected through convenient sampling technique. The collected data were analyzed by descriptive and inferential statistics. After collection of the baseline data and pretest of the study variables, the investigators trained the participants the procedure of simulation based Breast Self-Examination using breast self-examination manikin. Return demonstration was done to ensure every participant has individual hands on skill training. This training was scheduled for one hour with the duration of 7 days. Posttest conducted after two weeks using same data collection instruments and manikin. This study reveals that, in pretest, 94 % had average knowledge and 6% had poor knowledge whereas in posttest, 74% had very good knowledge score and 26 % had good knowledge score. Hence, the simulation based BSE techniques were effective ( $t=12.5073$ ,  $d.f=49$ ,  $p=0.001$ ) in improving the knowledge. With regard to the breast self-examination skill assessment pretest, 20% had average skill and 80% had poor skill whereas after attaining skill through simulation 68% of women had very good knowledge and 32% had good knowledge. Hence, the simulation based BSE techniques were effective in improving skill ( $t=17.06$ ,  $d.f=49$ ,  $p=0.001$ ). This study also shows there is significant relationship ( $r=0.685$ ,  $p=0.05$ ) between knowledge and skill in performing BSE. This study concludes that there is an urgent need to establish awareness programme regarding Breast Self-Examination and to identify the breast anomalies as early as possible.

### KEYWORDS

breast, breast self-examination, simulation, women

### INTRODUCTION

Breast cancer is the one of the most devastating disease affecting women around the globe and causing 4000 deaths per year approximately (Irvin et al., 2011). Most of the early breast cancers are appeared to be asymptomatic and larger tumors may present as painless mass which could be identified through effective screening (Chalassani et al., 2018) Prevention, early identification and treatment help women to maintain their functional status and quality of life. Simulation based Breast Self-Examination (BSE) is one of the best methods where women can identify the changes as early as possible to reach the suitable health care facility at the earliest. The purpose of this paper is to highlight the importance of prevention, early identification of breast cancer and identifying the possibility of using simulation based Breast self-examination techniques to educate public hence they can get not only the awareness but also the experience of hands on skill training.

### MATERIALS AND METHOD

A quantitative approach with pre experimental one group pre-test, post-test design was used for this study. 50 women in the age group of 22-60 years chosen through convenient sampling. After the ethics committee approval, an informed consent was taken from the participants before collecting data. The data were collected using a socio demographic proforma, questionnaire to assess knowledge on breast self-examination and breast self-examination skill assessment checklist. The simulation based breast self-examination technique were taught using manikins and return demonstration was done until the participants attained skill and the posttest was done 7 days after the intervention.

### RESULTS

**Table 1: Socio-demographic details of women**

The participants were 50 women in the age group of 22 to 60years.

Criteria	Frequency	Percentage
<b>Frequency of menstruation</b>		
Regular	21	42
Irregular	9	18
Absent	20	40
<b>Number of children</b>		
One	06	12
Two	31	62
More than two	7	14
No children	6	12
<b>History of breast feeding</b>		
Currently feeding	0	0
Currently not feeding	44	88
No history of breast feeding	06	12
<b>Family history of breast cancer</b>		
Yes	1	2
No	49	98
<b>History of lump in breast</b>		
Yes	2	4
No	48	96

**Table 2: Pre-test and post-test of knowledge on breast self-examination.**

Category	Range	Pretest		Post test	
		Frequency	Percentage	Frequency	Percentage
Very Good	16-20	-	-	37	74%
Good	11-15	-	-	13	26%
Average	06-10	47	94	-	-
Poor	00-05	3	6	-	-

This study reveals that, in the pretest, 94 % had average knowledge and 6% had poor knowledge whereas in the posttest, 74% had very good knowledge score and 26 % had good knowledge score.

**Table 3: Pre-test and post-test of skill in performing breast self-examination**

Category	Range	Pretest		Post test	
		Frequency	Percentage	Frequency	Percentage
Very Good	08-10	-	-	34	68
Good	05-07	-	-	16	32
Average	02-04	10	20	-	-
Poor	< 2	40	80	-	-

With regard to the breast self-examination skill assessment pretest, 20% had average score and 80% had poor score, whereas after practicing through simulation 68% of women had very good score 32% had good score.

**Table 4 : Effect of simulation based Breast Self-Examination Technique on Knowledge on Breast Self-Examination**

Knowledge	Mean	SD	df	t value	P value
Pre test	09.16	2.951	98	12.5073	0.001
Post test	16.56				

Table 5 depicts the data on the effect of simulation based Breast Self-Examination Technique on Knowledge reveals that, the simulation based BSE techniques were effective ( $t=12.5073$ ,  $d.f=49$ ,  $p=0.001$ ) in improving the knowledge.

**Table 5: Effect of simulation based Breast Self-Examination Technique on skill in performing Breast Self-Examination**

Skill	Mean	SD	df	t value	P value
Pre test	3.6	1.27	49	17.06	0.001
Post test	7.92				

Table 5 depicts the data on the effect of simulation based Breast Self-Examination Technique on skill reveals that the techniques were effective in improving skill ( $t=17.06$ ,  $d.f=49$ ,  $p=0.001$ ).

**Table 6 :**

Variables	Karl Pearson Correlation	P value
Knowledge	0.385	0.05
Skill		

Table 6 shows that there is significant relationship ( $0.385$ ,  $p=0.05$ ) between knowledge and skill in performing BSE.

## CONCLUSION

This study concludes that simulation creates a real experience in hands on skill training for the women, hence the health educations, which need demonstration, use manikins for effective understanding and attaining essential skills. This study also throws light in to the urgent need to establish awareness programme regarding Breast Self-Examination and to identify the breast anomalies as early as possible.

## REFERENCES

- William Irvin Jr , Hyman B Muss, Deborah K Mayer, Symptom management in metastatic breast cancer DOI: the oncologist.2011-0159,PMCID, PMID: 21880861.
- Pavani Chalasani, breast cancer clinical presentation june 4 2018 ,<https://emedscape.com>
- Kamer Gur, Hasibe Kadioglu & Ayese Sezer Breast cancer.risk & effectiveness of BSE training among women living in a District of Istanbul, PMCID:PMCI15502953.
- C.Maya, the article from THE HINDU News paper May 21,2016,national cancer registry programme and Indian council of medical research.
- Paul Augustine, Regi jose,Arun peter,Anoop Amruth Lal, Jem Prabhaka. Jeesha, Jay Adhivan,Haran ,Risk factors of breast ca in Kerala ,India:case control study,<http://www.medicallyjournal>.
- Beck and polit ,text book of essentials of nursing research ,7 th edition wolters kluwer pvt.ltd/: publications New Delhi
- Asian pacific journal of cancer prevention: APJCP, Womens knowledge, attitude and practice about rural district of Central India ,nov.2015.
- Bouya S, Balouchi A, ahamadidarehsimas,badakhsh M, knowledge and source of information about early detection technique of breast cancer among women in Iran: A systematic review,DOI:10.5001/omg.2016.25.