Effectiveness of PTP on knowledge of breast self-examination among nursing students

Philomena Fernandes

Abstract
The study was conducted to assess the effectiveness of planned teaching programme on breast self-examination on nursing students. An evaluative approach with one group pre-test post-test design was used for the study. 100 samples were selected using purposive sampling technique. A structured knowledge questionnaire was used to collect the data and analysis was done using descriptive and inferential statistics. A significant difference between pre test and post test knowledge was found (‘t’ value 32.250, p < 0.05). The study findings showed that the structured teaching programme was effective in improving the knowledge of nursing students on BSE.

Keywords: Effectiveness, technique, questionnaire, structured teaching

Introduction
Breast is an important psychological, physiological and aesthetic part of female form. It forms an important accessory organ of the female reproductive system [1]. Breast development happens in distinct stages throughout a woman’s life [2]. Breast self-examination is an inspection and palpation of breast performed by women to detect any changes in her breast. It is proven that the best chance of treating breast cancer successfully to detect them early through breast self-examination.

Background of the study
Breast cancer is the most common cancer in women worldwide after skin cancer. When a breast change is detected in its early stages, chances of surviving the disease are greatly improved. Regularly examining her own breasts allows a woman to become familiar with how her breasts normally look and can help her more readily detect any changes that may occur. The screening guidance include early mammograms starting at age 40 and timing for as long as a women is in good health [3].

Need & significance of the study
Breast cancer is the second leading cause of cancer related death in women. The efficacy of breast self-examination will decrease the cancer mortality. The nurse plays an important role in BSE education. BSE is a modality used for the early detection of breast cancer. Nurse should teach the public about abnormal breast changes and also early detection to correct misconceptions and reduce the risk of getting breast cancer. If women understand the importance of early detection and treatment, they are more likely to do breast self-examination, regular mammograms and less likely to delay seeking medical care when an abnormality is found [6].

A descriptive study on knowledge of BSE on 100 nursing students, conducted in a selected nursing institutions of Patiala, Punjab and the results indicated that majority of them (89)% had average level of knowledge and 11% of them had inadequate knowledge and no one have adequate knowledge [7].

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**Problem statement**
Effectiveness of planned teaching programme on knowledge of breast self-examination among nursing students of NUINS at Mangaluru.

**Objectives**
1. To assess the level of knowledge on breast self-examination among nursing students.
2. To evaluate the effectiveness of planned teaching programme on breast self-examination.
3. To find the association between knowledge and selected demographic variables.

**Assumption**
Nursing students are not having adequate knowledge regarding breast self-examination.

**Hypothesis**
H1. The mean post-test knowledge scores of female nursing students on breast self-examination will be significantly higher than mean pre-test knowledge scores.
H2. There will be significant association between the knowledge scores and selected demographic variables.

**Conceptual framework**

**Review of literature**
1. A study on knowledge and practices of breast self-examination among 209 nursing students was conducted at National Institute of Nursing Education, Chandigarh. Data was collected by a self-administered questionnaire. Finally the results estimated that more than half (57.9%) were practising BSE and amongst them 51% were practising BSE monthly. Among the participants practising BSE (42.1%), majority 75% responded that they do not get time for BSE [11].
2. A planned teaching programme on awareness and impact of education on BSE among college going girls from selected college of Udupi district. Forty, degree female students were selected. The result showed that majorities (52%) of there were in the age group of 18-19 years and 72% of them had average knowledge on BSE in the pre-test score. Out of 40 participants only 1 student was performing BSE occasionally. 85% had good knowledge score in post-test. Awareness of BSE was found to be related to educational attainement [13].

**Methodology**
Pre-experimental one group pre-test post-test design was used for the study. 100 samples were selected using purposive sampling technique. Pre-test was administered to the subjects using structured knowledge questionnaire. The researcher collected the demographic data along with this. After the pre-test a planned teaching programme was conducted on BSE to the students. After 7 days of intervention the investigator administered the post-test to assess the level of knowledge of nursing students using the same structured knowledge questionnaire. Paired 't' test was used to assess the effectiveness of PTP. Chi-square test and fisher’s exact test was used to find out the association between the knowledge of BSE with demographic variables.

**Findings and interpretation**

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (f)</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Poor(1-7)</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Average(8-14)</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>Good(15-20)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In order to find out the level of knowledge of nursing students, a three-point scale was used. The percentage scores were graded arbitrarily as follows. In pre-test majority of nursing students 77% had average knowledge and 23% had poor knowledge regarding BSE. In the post-test majority of nursing students (91%) acquired good knowledge and only 9% had an average knowledge on BSE.
Effectiveness of planned teaching programme regarding Breast Self-Examination was statistically analyzed using paired t-test. The data presented in table 2 shows that the calculated ‘t’ value (32.250) is more than table ‘t’ value (ttab=1.984) and p value is less than 0.05. Hence there was a difference in the score before and after the teaching programme, research hypothesis was accepted. It indicates the teaching programme was effective in BSE at 5% level of significance.

Table 3: Association between knowledge of nursing students on BSE with selected demographic variables, n=100

<table>
<thead>
<tr>
<th>Variable</th>
<th>&lt;9(median)</th>
<th>&gt;9(median)</th>
<th>Chi square test/Fisher’s exact test</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>17</td>
<td>13</td>
<td>1</td>
<td>0.035</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>28</td>
<td>22</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>24</td>
<td>11</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>Hindu</td>
<td>11</td>
<td>9</td>
<td>1.348**</td>
</tr>
<tr>
<td></td>
<td>Christian</td>
<td>55</td>
<td>25</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>&lt;10years</td>
<td>4</td>
<td>0</td>
<td>0.504</td>
</tr>
<tr>
<td></td>
<td>10-11 years</td>
<td>7</td>
<td>2</td>
<td>p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>12-13 years</td>
<td>36</td>
<td>20</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>&gt;14years</td>
<td>19</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Source of Knowledge on BSE</td>
<td>Family members</td>
<td>39</td>
<td>14</td>
<td>4.683*</td>
</tr>
<tr>
<td></td>
<td>Friends</td>
<td>2</td>
<td>1</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>Mass Media</td>
<td>18</td>
<td>3</td>
<td>p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>Health Professionals</td>
<td>17</td>
<td>16</td>
<td>NS</td>
</tr>
</tbody>
</table>

* indicates Fisher’s exact
* indicates Chi-square test
* S indicates significant
* NS indicates not significant

It can be seen that, p value for age is less than 0.05 hence there was an association between knowledge on BSE and age. For other demographic variables the p value is more than 0.05 hence they were no association with knowledge on BSE at 5% level of significance.

Recommendations
On the basis of the findings of the study, the following recommendations have been made for further study.
- A similar study can be replicated with a control group.
- A similar study can be conducted to the group of menopausal women.
- The study can be replicated on a larger sample for generalizing the findings.
- A comparative study can be conducted to find out the effectivenes of planned teaching programme and self instruction module on the same topic.

Conclusion
The main purpose of this study is to assess the knowledge of nursing students regarding Breast Self-Examination. Regular breast self-examination helps to detect any breast lumps. & when lumps are discovered at an early stage, patients have a better chance for long term survival. Through many research studies conducted on the knowledge level of nursing students on BSE was found to be less or an average. Teaching nursing students regarding Breast Self-Examination helps them to gain knowledge and to disseminate the information to the public & women in general.

References

Table 2: Effectiveness of PTP on BSE among the nursing students, n=100

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>‘t’ value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>8.79</td>
<td>2.10</td>
<td>32.250</td>
<td>&lt;0.001 s</td>
</tr>
<tr>
<td>Post-test</td>
<td>17.54</td>
<td>1.98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


20. The knowledge and attitude of breast self-examination and mammography in a rural area in Western Turkey [Internet]. [Cited 2016 May 5]. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC14037931
