Effectiveness of STP on knowledge of breast cancer among class IV employees

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Abstract
Breast cancer is the second leading cause of cancer deaths in India. The situation in rural areas is compounded with poor access to health facilities, low socio economic status and poor literacy. Awareness of the risk factors of breast cancer is important in the prevention of the disease. The objective of this study was to determine the effectiveness of structured teaching programme on knowledge regarding breast cancer among class IV employees in a selected community at Coimbatore. The design used was pre experimental one group pretest - posttest. 100 class IV employees include peons, cleaning staff, security guards, attenders was selected using nonrandom convenient sampling technique. The knowledge was assessed using structured questionnaire. The data obtained were analyzed using descriptive and inferential statistics. The study findings concluded that the structured teaching programme was effective in enhancing the knowledge on breast cancer among class IV employees.

Keywords: Knowledge, breast cancer, class IV employees

Introduction

Background of the study
Breast cancer in India is rapidly stepping towards Industrialization & Urbanization due to changes in their life. Breast cancer is the most frequent cancer among the women, 1.38 million new cases has been diagnosed in the year 2018. Cancer has become the major health problem in developing countries with about 6, 90, 000 cases. Breast cancer is the second leading cause of cancer death among women. The cancer risk factors include age, family history, parity, age of menarche and menopause, hormonal factors, diet, socio economic status, modern life style and lack of knowledge regarding preventive measures. The early detection can reduce the risk of the disease. The knowledge of the risk factors of breast cancer is very important in the prevention of the disease. Owing to the lack of awareness of the disease and in absence of a breast cancer screening program, the majority of breast cancers are diagnosed at a relatively advanced stage.

In India A recent report published by NCRP (National cancer registry program) estimates that the number of cancer cases is likely to increase from 13.9 lakhs in 2020 and 15.7 lakhs in 2025. Breast cancer can become a major health concern across Indian cities, especially in the metro Politian cities like Delhi, Bangalore and Chennai.

The methods recommended for screening breast cancer includes breast self-examination (BSE), clinical breast examination (CBE), and mammography, which require hospital visit and specialized equipments and expertise, BSE is inexpensive and is carried out by women themselves. The awareness of breast cancer and practice of breast self-examination is an important method of prevention. Breast self-examination is a cost effective method of early detection of breast cancer, recommended by American Cancer Society and the National Cancer Institute. It is a procedure performed by the individual herself to examine physically and visually to find the changes in the breast. It is an important component of health promotion and maintenance. Providing education and encouraging the women to perform breast self-examination is recommended to decrease the mortality rate from breast disorders. Under the various public health initiatives, such as ‘Health for All’ and the National Rural Health Mission, emphasis on breast awareness and breast self-examination as a first step towards creating the ground work for a nationwide breast cancer screening program. The investigators being nurses, observe that many of the III stage breast cancer patients were from low socio economic status and poor educational status and have less awareness on breast cancer.
Breast cancer awareness programs are more concentrated in the cities and have not reached the remote and rural parts of the country. Women often do not approach to medical care early enough due to various reasons such as illiteracy, lack of awareness, financial constraints and also shy to show the breast to the physician even if there is any presence of symptoms. Therefore the investigators wish to choose the study to assess the knowledge on breast cancer among class IV employees since their knowledge level will be poor and need to educate them for early screening of breast cancer.

**Statement of the problem**
A study to assess the effectiveness of structure teaching program on knowledge regarding breast cancer among class IV employees in a selected community at Coimbatore.

**Objectives**
- To assess the knowledge regarding breast cancer among class IV employees before and after structure teaching program.
- To determine the effect of structure teaching program on knowledge regarding breast cancer among class IV employees.
- To associate the level of knowledge with selected demographic variables.

**Hypothesis**
**H1:** There will be a significant improvement in the knowledge score after the structured teaching program.

**Assumption**
Lack of awareness on breast cancer threatens the life and wellbeing of women.

**Delimitation**
Class IV women employees in the age group between 25-65 years.

**Conceptual frame work**
The conceptual frame work used in the study.

**Methodology**
The study was carried out in a selected community at Coimbatore over a period of eight weeks to assess the knowledge of breast cancer among class IV employees aged between 25 – 65 years. A pre experimental one group pre and posttest design involving 100 class IV employees include peons, cleaning staff, security guards, attenders selected using non-random convenient sampling method. The expert validated and pre-tested the structured interview schedule which was used to collect the data. The written permission was obtained prior to the study from the concerned authority of the community. Informed consent was obtained from each respondent. The structured interview schedule comprised of three sections which sought information on the demographic background of the respondent which includes personal characteristics, obstetrical history, health related information, and dietary and sleeping pattern, general awareness on breast cancer and breast self-examination (BSE). The data were analyzed using SPSS 18. A pretest to assess knowledge regarding breast cancer was conducted and on the same day structured teaching programme on breast cancer was conducted and individually demonstrated the breast self-examination to the class IV employees. Then on 60th day, posttest knowledge was assessed.

**Results**
The study findings reveals that majority of the class VI employees 90% were married, 70% were in the age group of 35-60 years, 72% had secondary education, (71%) had puberty between the age of 10-14 years, 60% had moderate menstrual flow, 57% got married and had delivery at the age of 16-20 years, 59% had two children, 83% had given breast feeding to their child, 61% of the samples had given breast feeding for 1-2 years, 73% had moderate work in their organization, 97% had no history of cancer in their family, 83% had no habit of regular exercise, 59% not had the history of medication, 42% had diabetes and 13% had hypertension, 89% were non vegetarians and 74% were taking non–vegetarian weekly once, 66% not had the habit of consuming fast food, and 7% always consuming fast food, 55% had sleep of 5-6 hours and 87% were normal weight.

It was noticed that in the aspects of general awareness on breast cancer, nearly half of class IV employees had poor (49%) and average (51%) level of knowledge and in the aspects of breast self-examination, majority had poor (71%) and average (29%) level of knowledge before STP. Whereas after STP in the aspect of general awareness on breast cancer the level of knowledge increased to Good (46%) and average (54%) and in breast self-examination knowledge increased to Good (48%) and average (52%). Also study finding reveals that the overall knowledge before the teaching programme most of the samples had average (40%), poor knowledge (60%), with a mean score of (8.07±1.83) and none of the samples had good knowledge on breast cancer. After structured teaching programme majority of the samples (59%) had good, 39% had average level of knowledge, with a mean score of (16.72 ±1.91).

Almost all the samples had develop adequate knowledge on breast cancer. The study shows an significant association with knowledge level and age of class IV employees ($\chi^2$ value =8.898, df=3, sig value=0.031). No. of children ($\chi^2$ value =11.123, df=3, sig value=0.011), Breast feeding the child ($\chi^2$ value =7.985, df=1, sig value=0.005), dietary pattern ($\chi^2$ value =5.516, df=1, sig value=0.019)

<table>
<thead>
<tr>
<th>Aspects of Knowledge</th>
<th>Pretest Mean±SD</th>
<th>Posttest Mean±SD</th>
<th>Mean difference</th>
<th>t value</th>
<th>P&lt;0.05 df= 99</th>
<th>Sig value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General awareness of breast cancer</td>
<td>4.32±1.60</td>
<td>8.40±1.38</td>
<td>4.08</td>
<td>19.637*</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Breast self-examination</td>
<td>3.75±1.59</td>
<td>8.32±1.35</td>
<td>4.57</td>
<td>23.948*</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Overall Knowledge</td>
<td>8.07±1.83</td>
<td>16.72±1.91</td>
<td>8.65</td>
<td>40.449*</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>
The result showed significant improvement in the mean knowledge score regarding breast cancer after structured teaching programme and the hypothesis, H₁ is accepted.

Discussion
The result showed that class IV employees had poor to moderate level of knowledge regarding cancer breast. This could be attributed to the characteristics of the class IV employees as the majority of them were less educated and had no history of cancer in their family. Angela Gabrielly Quirino Freitas and Mathias weller (2018) found in the study to assess the women’s knowledge about risk factors of breast cancer in a Brazilian community that women without any close relative with cancer, were 1.54 (95% confidence interval [CI] 1.036-2.288) times as likely to have poor knowledge, compared to women who had a close relative with cancer (p = 0.033). Knowledge could help to avoid risk factors and motivate prevention behavior.

Recommendation
- Promote breast cancer awareness campaign in community
- Spread the breast cancer awareness in social medias like WhatsApp, twitter, Facebook, Instagram, LinkedIn
- A similar study can be conducted in different category of women
- A comparative study can be conducted between urban and rural community

Limitation
Control group not included
Only class VI women employees in a community who are available at the time of data collection period were included in the study

Conclusion
The study concluded that the structured teaching programme was effective for the enhancement of knowledge regarding breast cancer among class IV employees. The study highlights the need of creating depth understanding on prevention methods against breast cancer and in order to obtain early detection is fundamental in helping to reduce breast cancer mortality. Nurses as the health care providers have an important role in fostering the women health by promoting health campaigns on breast cancer.

Fig 1: Presents the knowledge score in whisker box plot before and after the STP in various aspects and overall aspect of breast cancer

References
8. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2375381/