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Beni-suef university female workers' breast self-examination practices

Abstract

Background: Breast cancer is the most common malignancy in women, with a rising fatality rate. With 19.3 million new cases predicted in 2025 due to aging, over half of cancer-related fatalities are in less developed countries. Early diagnosis and screening programs, including breast self-examination, clinical breast examination, and mammography, are crucial for controlling and preventing BC.

Aim: The current study was conducted to assess Beni-Suef university female workers' breast self-examination practices.

Subjects and methods: ***Design:*** A descriptive cross-sectional design used. ***Sample:*** 323 working women at Beni-Suef University, selected using the Chandrasekharan equation. The target population was 1700 women, with a sample size of 323. ***Tools:*** (I): A Structured Interviewing Questionnaire Sheet. (II): Breast Self-Examination sub-items Checklist.

Results: 74.9% of studied women did not practice breast self-examination, 48.3% of them notify that they did not know how it was practiced, 52.9% age of menarche at 10-12 years, 51.4%, and 46.1% of the studied women their age of pregnancy after marriage were 23-25 years old. It revealed that 65.3% of them did not wash your hands thoroughly during the examination, 82.4% did not look at arms to notice swelling or muscle weakness, and 85.4% did not putting hands on the thigh, 77.4% of the studied women during examining their right breast.

Conclusion: Based on the findings of the present study, it can be concluded that most of the studied female workers had inadequate practices level regarding breast self-examination. **Recommendations**: Additional research on large samples of high risk women to assess their perception for the regarding breast self-examination should be implemented.

Keywords: practices, breast self-examination, female workers

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Fatma Saber Nady,[1] Sahar Gamal Zaki,[2] Hanan Elzeblawy Hassan[3]

[1]Lecturer of Maternal & Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt
[2]Demonstrator of Maternal & Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt
[3]Professor of Maternal and Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt

Correspondence: Hanan Elzeblawy Hassan, Professor of Maternal and Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt

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Introduction

The most common malignancy in women is breast cancer (BC), and the fatality rate from BC is rising daily. In addition, 19.3 million new cases of cancer are predicted to be diagnosed in 2025 due to the aging population, and more than half of cancer-related fatalities are anticipated to occur in less developed countries worldwide. Higher fatality rates and higher health costs are associated with increased BC incidence.[1–4] On the other hand, one of the most crucial elements in evaluating the results of diagnosis and therapy is continuing an efficient cancer screening program. Because of this, early diagnosis and screening programs should be used to control and prevent BC. Breast self-examination (BSE), clinical breast examination (CBE), and mammography are essential for the early identification of breast cancer.[5–8]

Early detection of breast cancer is essential for disease control. Early diagnosis and systematic or opportunistic screening using mammography (MMG), clinical examination (CEM), and breast self-examination (BSE) are the components of early detection. Of these techniques, MMG is thought to be the gold standard for screening the target group because it helps identify breast cancer early on.[9–11]

Nurses possess the knowledge and skills necessary to instruct patients. In the practical context, the illness-related form is the most prevalent. Educating BSE in a variety of contexts and circumstances would seem to be a professional obligation for nurses, who are engaged in promoting and preserving health as well as preventing sickness.[12–16]

Aim of the study

The current study was conducted to assess Beni-Suef university female workers' breast self-examination practices.

Subject and method

Design: A descriptive cross-sectional design was used.

Sample: The sample was calculated by the following equation using the Chandrasekharan equation to calculate the sample size from the next formula (Chandrasekharan et al., 2019):

$$\mathbf{n = N / \{1 + N(e)2\}}$$

Where n = sample size, N = population size is 1700, and e = 0.05.

The total number of working women at Beni-Suef University at the time of conducting the study was 1700 women, so the target population of this study was 323 women. The sample size calculation was done using the following equation:

$$\mathbf{n = 1700 / \{1 + 1700(0.0025)\} = 323}$$

The study sample consists of 323 women who were working at Beni-Suef University and accepted to participate in the study at the time of the data collection.

Tool I: A structured interviewing questionnaire sheet

The researcher developed a comprehensive study on women's reproductive profiles, including their socio-demographic details as

age of marriage, education, and family income, and their reproductive history as menstrual history, regularity, contraceptive usage, and breastfeeding history.

Tool II: Breast self-examination checklist

Breast Self-Examination Observational Checklist was comprised of practical steps to evaluate and track women's breast self-examination performance. It includes four sub-items for breast self-examination (examination preparation, examination by consideration, make sure that there is asymmetry in the nipple, areola or breast, and tactile or palpation examination). It was utilized as a pre- and post-educational model implementation.

Scoring system

Steps were graded with zero and one, resulting in a total score of 35 degrees. Practical scores were categorized into two groups: ≥60% for satisfactory practice and <60% for unsatisfactory practice.

Tools validity and reliability and ethical consideration

Beni-Suef University's nursing department experts validated a study tool with a reliability coefficient of 0.976, obtaining ethical approval and consent from all female participants.

Statistical design

The data was analyzed using SPSS version 20 using mean, standard deviation, number, and percentage distribution.

Results

Table 1 reveals that 74.9% of studied women did not practice breast self-examination, 48.3% of them notify that they did not know how it was practiced (steps of procedure).

Table 1 Percentage distribution of the studied female workers regarding their women's breast self-examination practice (n=323)

Items	No.	%
Breast self-examination practice		
No	242	74.9
Yes	81	25.1
Why you do not practice BSE		
Forgetfulness or neglect	78	32.2
Considering it unnecessary	47	19.4
Not knowing how it is practiced	117	48.3

Figure 1 reveals that more than half (52.9%) of the studied female workers had their age of menarche at 10-12 years; beside that, more than half (51.4%) of them had a monthly period that lasted for 5-7 days. Related to the regularity of the monthly period, more than two-thirds (69.7%) of them had regular menstrual cycles.

Figure 2 reveals that 46.1% of the studied women their age of pregnancy after marriage was 23-25 years old. Furthermore, less than two-thirds (62.2%) of them had no history of miscarriage, while women who had a history of automatic miscarriage were less than three-quarters (73.8%).

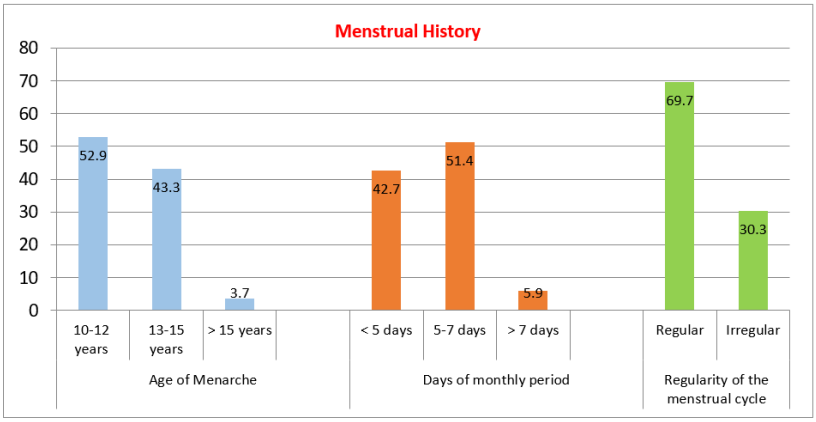

Figure 1 Menstrual History of the studied female workers.

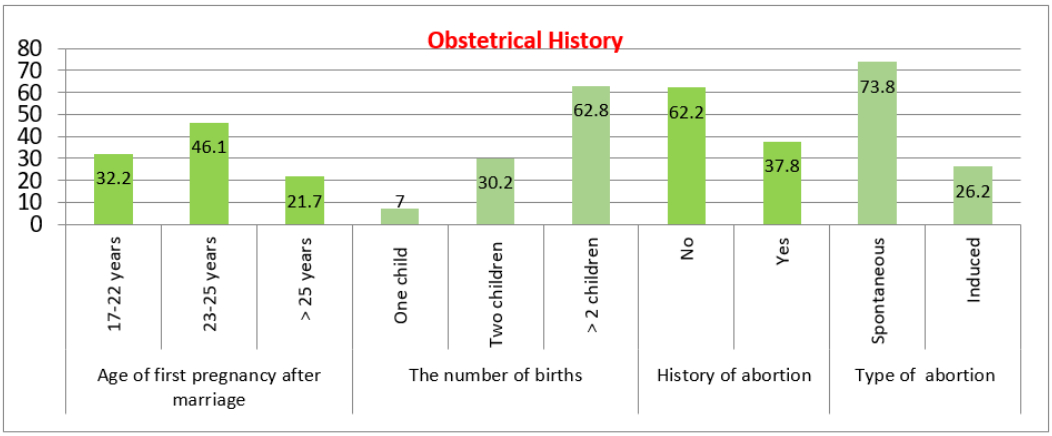

Figure 2 Obstetrical History of the studied female workers.

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Figure 3 presents female workers' practice regarding breast self-examination preparation. It noticed 65.3% of them did not wash your hands thoroughly, dry them and, if necessary, wear a cuff during the examination, 62.2% did not take off your clothes from the waist to the top of the breast area, 69.3% did not do examination in a closed room with a large mirror and a pillow, and 69.0% did not know that breast self-examination can be done while bathing.

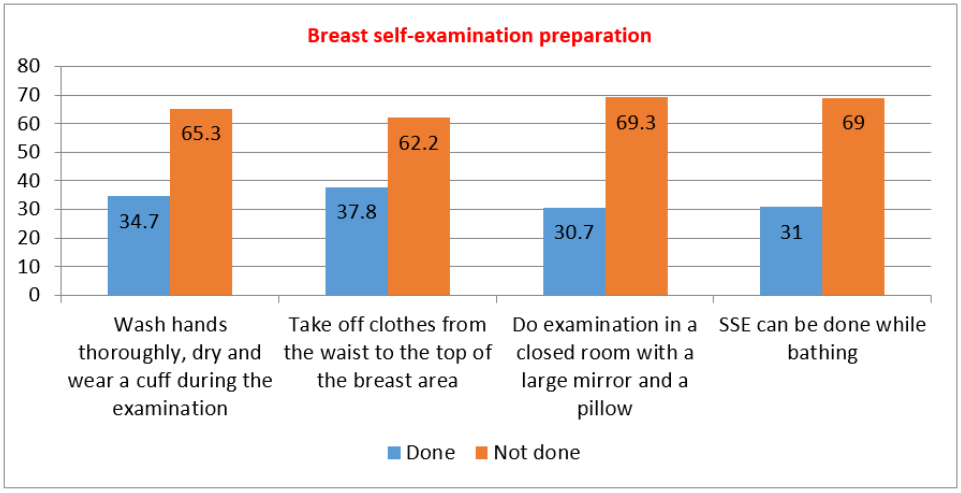

Figure 3 Female workers' total practices regarding examination preparations.

Figure 4 presents female workers' practices regarding examination by consideration during BSE. It reveals that 82.4% did not look at arms to notice swelling or muscle weakness, 80.5% did not raise arms up and place both palms behind head, 79.9% did not put your arms on the waist area, and 77.4% did not put hands behind your back and bend your body forward.

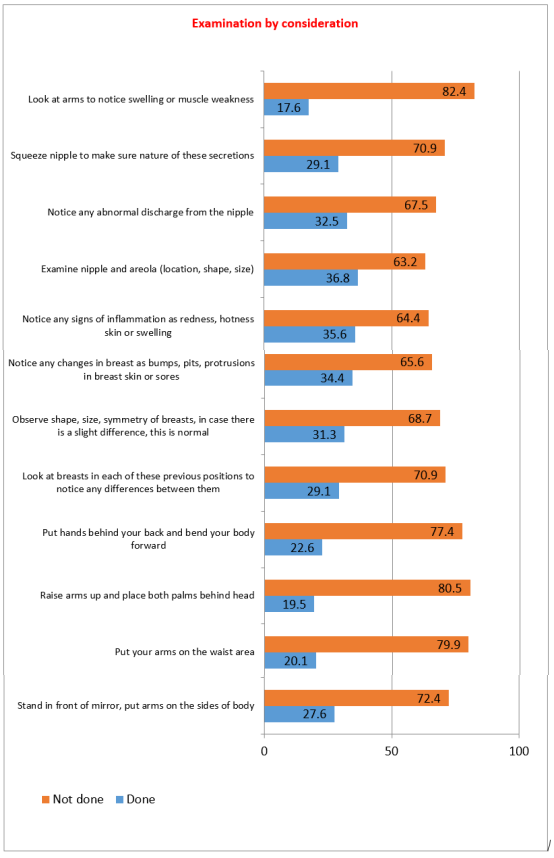

Figure 4 Female workers' practices regarding examination consideration.

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Figure 5 presents female workers' practices regarding make sure that there is asymmetry in the nipple, areola or breast during BSE. It declare that 85.4% did not putting hands on the thigh, 83.9% their hands are not firmly pressed to the waist, and % their arms are not raised upwards and both palms are not placed behind the head.

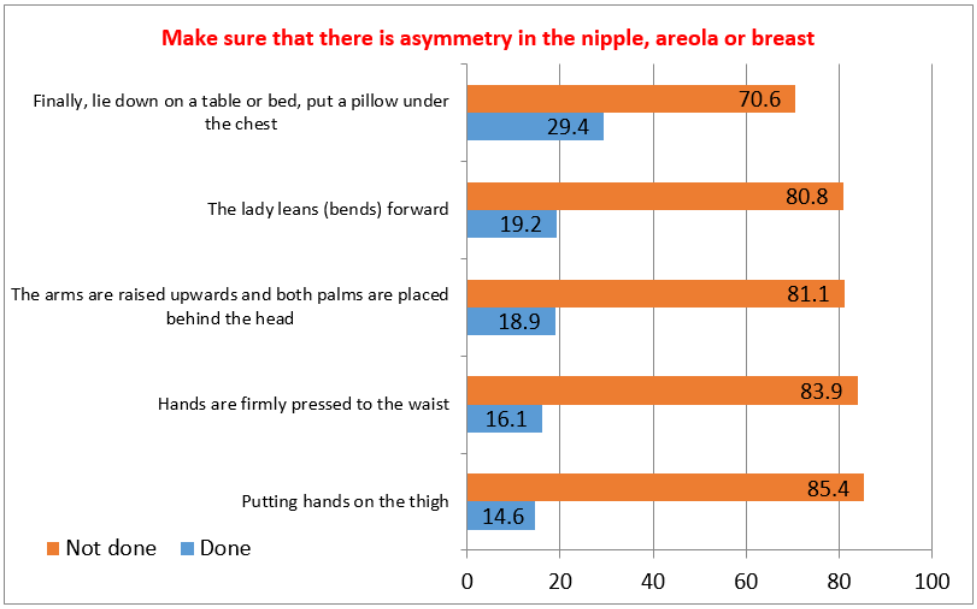

Figure 5 Female workers' practices regarding make sure that there is asymmetry in the nipple, areola or breast.

Figure 6 presents female workers' practice regarding tactile examination (palpation) during breast self-examination. It shows that77.4% of the studied women during examining their right breast, did not put right hand under head and examine with left hand and vice versa, and 73.1% during examination, did not use different levels of pressure (light-medium-deep) to reach entire breast tissue.

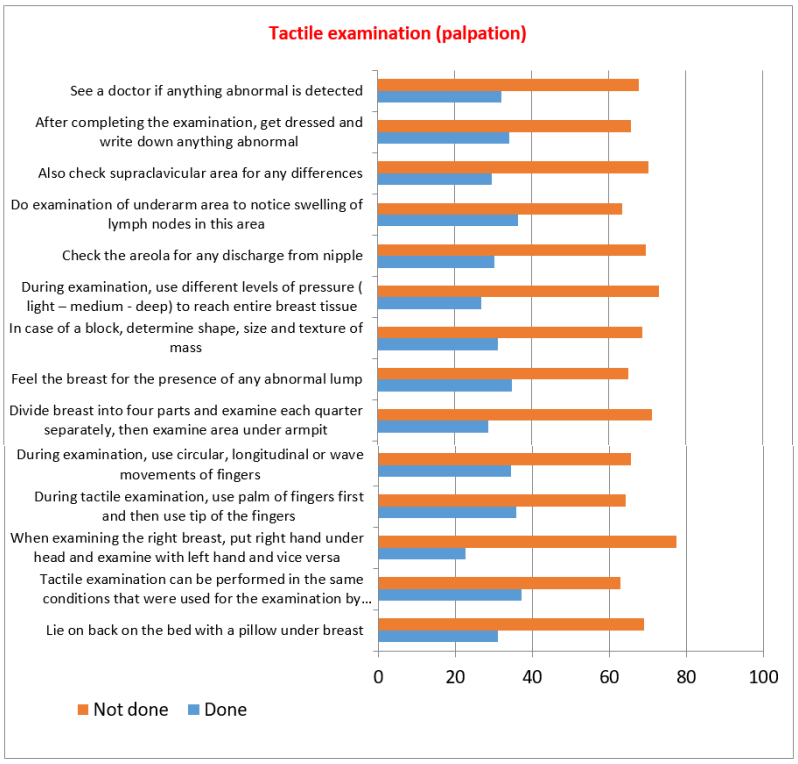

Figure 6 Female workers' practices regarding tactile examination (palpation).

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Discussion

Early detection of breast cancer is crucial for disease control, with mammography being the gold standard for early detection and screening.[9] The aim of the study was assessing Beni-Suef university female workers' breast self-examination practices.

Concerning the age of menarche, the current study illustrated that the age of menarche of more than half of the studied female workers was 10-12 years. This finding was in disagreement with Yılmaz et al.,[17] who studied "the effects of training on knowledge and beliefs about breast cancer and early diagnosis methods among women" and demonstrated that three-quarters of the participants' age at menarche was at 12-14 years.[17] From the researcher's point of view, these results may be related to the normal physiological range for age of menarche from 10-14 years.

Pertaining to days of monthly period, the current study presented that more than half of females' monthly periods last for 5-7 days, and more than two-thirds had regular menstrual cycles. This finding is supported by Alsareii et al.,[18] who investigated "awareness of breast cancer among female students and faculty from Najran University, Najran, Saudi Arabia," and stated that less than two-thirds of women had regular menstrual cycles, and El-kest et al.,[19] who mentioned that most women had periods that lasted with a mean of 4.00±1.52 days. From the researcher's point of view, these results may be related to that normal physiological range for days of monthly periods from 5-7 days.[18,19]

Concerning breast self-examination practices by studied female workers, the current study presented that the female workers' practices regarding BSE were poor in all items (examination preparations, examination by consideration, making sure that there is an asymmetry in the nipple, areola, or breast, and tactile examination or palpation), as most of the studied females did not do steps properly.

Firstly; regarding the studied female workers' practices regarding breast self-examination preparation, the results revealed only around one-than third washed their hands thoroughly, dry them and, if necessary, wear a cuff during the examination and took off their clothes from the waist to the top of the breast area. This finding is similar to Eittah et al.[20]

Secondly; regarding the studied female workers' practices regarding breast self-examination by consideration, the results revealed that more than one-third examined the nipple and areola in terms of the location, shape and size of the nipple. While most of them did not raise their arms up and place both palms behind their head. This result was consistent with that of Alameer et al.[21]

Thirdly; regarding the studied female workers' practices regarding make sure that there is an asymmetry in the nipple, areola, or breast; the results revealed that majority of them did not put their hands on the thigh. This finding agreed with Ibitoye et al.[22]

Fourthly; regarding the studied female workers' practices regarding tactile examination or palpation, the results revealed that most of them when examining the right breast, neither put their right hand under their head and examine with the left hand and vice versa, nor divide the breast into four parts and examine each quarter separately, then examine the area under the armpit. This finding was supported by Ram[23]

Conclusion

Based on the findings of the present study, it can be concluded that most of the studied female workers had inadequate practices level regarding breast self-examination.

Recommendations

I. Implement an educational program to enhance women's practices regarding breast self-examination.

II. Additional research on large samples of high risk women to assess their perception for the regarding breast self-examination.

Acknowledgments

None.

Conflicts of interest

The author declares there is no conflict of interest.

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