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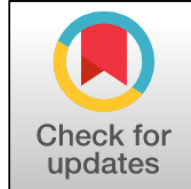
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Female Students' Knowledge Regarding the Importance of Breast Self-Examination: A Cross-Sectional Study

Pengetahuan Mahasiswi Mengenai Pentingnya Pemeriksaan Payudara Sendiri (SADARI): Sebuah Studi Cross-Sectional

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Abstract

Background: The most crucial screening technique for the early identification and diagnosis of breast cancer is breast self-examination (BSE), in which women examine their breasts regularly to look for any abnormalities and seek immediate medical assistance. **Objectives:** To identify female students' knowledge regarding the importance of breast self-examination. **Methods:** To evaluate female students' understanding of the significance and technique of breast self-examination, a descriptive cross-sectional study was carried out. The study began on November 1st, 2023, and ended on March 30th, 2024. 200 female students made up the non-probability (purposeful) sample, and the study tool was a questionnaire. Following a thorough analysis of relevant studies and the body of existing literature, the questionnaire was adopted. Data collection began on February 4, 2024, and ended on February 15, 2024. The researcher then explained the study and its goals to the study sample, obtained verbal consent from the female students, and conducted direct interviews with the students to answer the questionnaire, which took roughly five to ten minutes. **Results:** The current study's researchers found that the majority of the sample was unmarried, that the age range of 20 to 29 was the highest and the third stage, that all of the participants had morning studies, and that most of them lived in center areas. They also found that most participants had a good level of knowledge regarding the significance of breast self-examination (BSE) and how to perform it, which was a good marker for this community segment and nursing students in particular. **Conclusion:** The study's findings indicate that female pupils had a high degree of knowledge.

Highlights:

Breast self-examination (BSE) aids early breast cancer detection.

Cross-sectional study; 200 female students surveyed via questionnaire.

Participants showed high knowledge of BSE importance and techniques.

Keywords: Female Students, Knowledge, Breast Self-Examination

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Introduction

The most prevalent cancer in women and one of the leading causes of mortality for them is breast cancer (BC). It can last a lifetime even after surgery, tumor excision, and even breast removal, and it affects women of various ages for a variety of causes [1,2]. Despite significant efforts to treat the disease, it was noted in 2014 that the mortality rate had decreased globally, particularly in Canada. This decrease was partly due to advancements in treatment and the development of techniques and steps for breast self-examination (BSE), which were taught to women with control subjects. Women invited to screen for breast cancer had a 20% relative risk reduction for breast cancer mortality, and reports indicated that the infection rate was lower among women who practiced [3].

Early diagnosis increases treatment effectiveness in BC. In early diagnosis, routine BSE is crucial. The main thing to keep in mind is that BSE should be performed appropriately for its approach. The time for a BSE starts when menstrual bleeding begins because it reduces the effects of estrogen and progesterone hormones and facilitates tissue palpation of the breast. Therefore, BSE should be performed between the fifth and seventh days of menstruation to avoid unnecessary doubts and to improve the psychological state of the individual [4,5].

Since some female students lack the skills to perform BSE and others are unaware of the severity of BC, its causes, and its rapid spread, it is challenging to gauge how well-informed they are about its significance. According to estimates from the World Health Organization (WHO), there are 1,050,000 new cases of BC worldwide each year [6].

Although the etiology of BC is still thought to be idiopathic, several factors seem to raise the likelihood of getting it, some of which are inherited. Emotional states. The incidence of such neoplasia in younger and younger people is attributed to the addition of diabetes and hormonal changes to the list of risk factors [7,8].

As a result, educational institutions—universities foremost—are in the best position to inform students about the risks of BC, the significance of BSE, and how to perform it because it is simple, cost-free, and does not require any physical or financial resources [9,10].

Methods

To evaluate female students' understanding of the significance and technique of breast self-examination, a descriptive cross-sectional study was carried out. The survey ran from November 1, 2023, to March 30, 2024. Female students verbally consented to participate in the study after the researcher explained its purpose, provided instructions on how to fill out the study, and made sure they understood that participation was completely voluntary and that they could leave at any time. In addition to ensuring that their identities would remain anonymous in presentation reporting and/or any future publication of the study, the researcher also gave participants the assurance that the confidentiality of their data would be protected and securely maintained both during and after study participation.

The University of Basrah Bab Al-Zubair College Comps. Was the site of the study. The sample is non-probability (intended) and comprises 200 female students. The following criteria are used to choose the sample: only female pupils. Only female students at Bab Al-Zubair College Complex and Basra University

After a thorough analysis of the existing literature and related studies, the questionnaire was adopted. The three components of [11-19] are as follows: Section 1: Demographic Data. Section 2: Understanding the Significance of BSE. Section 3: Understanding how to conduct BSE.

The data was gathered between February 4, 2024, and February 15, 2024. The researcher then verbally obtained consent from the female students and discussed the study and its goals with the study sample. Direct interviews have been used to answer the questions; it takes roughly five to ten minutes to complete the questionnaire.

Result and Discussion

<u>Demographic Data</u>	Variables classes	F	%
Age	Less than 20	23	11.5%
	20-29	177	88.5%
College	College of Nursing	40	20%
	College of administration and economic	40	20%
	College of Arts	40	20%
	College of dentist	40	20%
	College of <u>translation</u>	40	20%
Stage	First	23	11.5%
	Second	53	26.5%
	Third	70	35%
	Forth	54	27%
Marital status	Single	187	93.5%
	Married	13	6.5%
Residence	Center	127	63.5%
	Judiciary	63	31.5%
	District	10	5%

Figure 1. Demographic Data of the Students

Since there were 200 participants in this study, the sociodemographic data of the participants is displayed above. It was discovered that the bulk of the participants (88.5%) were between the ages of 20 and 29, 35% were in the third stage, 93.5 percent were single, and 63.5 percent lived in the center.

N	Questions	Know		Not sure		Don't know		MS	ASS
		F	%	F	%	F	%		
1	Regularly performing breast self-examination is crucial for the early diagnosis of breast cancer.	173	86.5 %	7	3.5%	20	10%	2.76	Agree
2	Breast self-examination is intended to identify any abnormalities or malignancies in the breast.	180	90%	4	2%	16	8%	2.82	Agree
3	Every month, a breast self-examination must be conducted.	143	71.5 %	15	7.5%	42	21%	2.5	Agree
4	Seven days following the conclusion of the menstrual cycle is when the breast self-examination period occurs.	68	34%	35	17.5 %	97	48.5 %	1.8	Nature
5	Postmenopausal women perform breast self-examinations on the same day each month.	46	23%	44	22%	110	55%	1.68	Nature
6	Self-examination of the breasts is challenging.	54	27%	58	29%	88	44%	1.83	Nature
7	It's critical to conduct a breast self-examination to preserve physical wellness.	159	79.5 %	12	6%	29	14.5 %	2.65	Agree
8	When performing a breast self-examination, we assess the breast's skin tone.	116	58%	13	6.5%	71	35.5 %	2.22	Agree
9	We assess whether the nipple has changed or whether there are secretions during a breast self-examination. We assess the secretions' color.	134	67%	18	9%	48	24%	2.43	Agree
10	Breast self-examination identifies variations in the breast's size and form.	160	80%	12	6%	28	14%	2.66	Agree
Total MS				2.33 nature					

Figure 2. Importance of Self-Breast Examination

The participant's average response to each of the ten questions used to gauge the significance of BSE is displayed in this table. According to the data, all of the responses were almost identical, and the overall (Ms) significance of the (BSE) "2.33" was positive (nature).

N	Questions	Know		Not sure		Don't know		MS	S
		F	%	F	%	F	%		
1	With hands on hips, a breast inspection is performed in front of a mirror.	40	20%	40	20%	120	60%	1.6	Disagree
2	When looking at the breasts in the mirror, the shoulders are straight and the arms are crossed over the hips.	107	53.5%	13	6.5%	80	40%	2.13	Nature
3	Examine the breast for any obvious lumps, deformities, orswelling	168	84%	4	2%	28	14%	2.7	Agree
4	Examine the nipple and make sure it is not inverted or pushed inside	154	77%	13	6.5%	33	16.5%	2.6	Agree
5	In the second step, the arms are raised and the same changes are looked for in the skin and nipple position	133	66.5%	24	12%	43	21.5%	2.45	Agree
6	In the third step, one looks in front of a mirror for the presence of secretions from the body's nipple	130	65%	23	11.5%	47	23.5%	2.41	Agree
7	The left hand is used to inspect the right breast. Conversely, searching for any bumps or irregularities	133	66.5%	21	10.5%	46	23%	2.43	Agree
8	Press down using flat fingers on the breast and move in a circular motion	133	66.5%	16	8%	51	25.5%	2.41	Agree
9	The breast examination consists of three circular movements, lengthwise and upside down	106	53%	32	16%	62	31%	2.22	Nature
10	Some women prefer breast self-examination when their skin is moist and usually slippery while showering	91	45.5%	46	23%	63	31.5%	2.14	Nature
Total MS		2.3 nature							

Figure 3. How to Perform Breast-Self Examination

The participant's average response to each of the ten questions used to evaluate performance on the BSE is displayed in this table. The findings indicated that all of the responses were essentially the same; the overall (Ms) performance score (BSE) was "2.3," and the "nature" was good.

Discussion

Part One: Discussion of Demographic Data

The results of the current study found that the majority of students were aged 20 to 29 years old. These results agreed with several studies [20-25] which stated the majority of the study sample ages were between 22 to 29 years old.

Since our Iraqi education system begins at 7 or 8 years old for primary school and ends at 17 or 18 for college enrollment, these age groups (20-29) are primarily unmarried because, as is customary, students marry after being hired or graduating from college.

Regarding the stage of the study, the majority of the sample were third-grade students. These results agreed with several studies [26-30] which stated the majority of the sample was third grade.

Regarding marital status, the majority of the sample was single. The results of this study are consistent with many studies [31-35] which stated that most of the study sample was single.

These results are consistent with a study by Salim et al. (2021) that found that the majority of them (88%) were unmarried and that the percentage of residents in urban areas was 57% and in rural areas was 43%, which is

almost the same percentage [17].

Regarding the residence, most of the participants lived in the center of the city. The results of this study agree with many studies [36-40] which stated most of the study sample lived in the center of the city.

Part Two: Discussion of Female Students' Knowledge Regarding Breast Self-Examination

The researcher demonstrates that most women are aware of the significance of breast self-examination (BSE) in this section, taking into account Table 2 (the importance). Most women are aware that early detection is crucial, that the exam's goal is to evaluate any tumors or changes, and that it should be scheduled monthly. They also largely understood the importance of physical health, the evaluation of skin color, the nipples, and any other changes in the breast's size and shape.

Taking a look at Table 3 (to know how to perform), researchers are demonstrating what most women know about how to perform breast self-examination (BSE). Most women knew that the test required the shoulders to be straight up against the mirror with the hips crossed to detect any lumps, deformities, or swelling. The exam focused on the nipple to see if it was inverted or pushed inside, and the arms were raised to check the skin for changes and positioning of the nipples. To perform a deeper check, the fingers had to move lengthwise and upside down.

Females' overall knowledge score was 2.335 and 2.309, which was a good indicator of their level of understanding.

However, the remaining percentage found that the female students in this study lacked knowledge in the following areas of evaluation: they were curious about the timing of the menstrual cycle and when to take the test, asking seven days after the cycle ended (34%). not only that, but they are also unaware that the exam's start date coincides with the postmenopausal women's monthly date (24%). only know that, and only 20% are aware that a mirror is required to do the exam by raising the hand on the hips.

These findings are almost identical to those of the study conducted in 2021 by Selim, which found that just 14.8% of participants were aware of the proper time for BSE in premenopausal women [17].

Conclusion

The current study's researchers came to the conclusion that the majority of the sample was unmarried, between the ages of 20 and 29, which was the highest and third stage, and that all of them lived in central locations and had morning studies. Additionally, they found that most participants had a strong understanding of the significance of breast self-examination (BSE) and how to execute it, which was a good indicator for this community group and nursing students in particular.

References

1. . I. H. Zainel, H. H. Abdul-Ra'aoof, and A. M. Tiryag, "Mothers' Knowledge and Attitudes Towards Her Children with Neonatal Jaundice: A Cross-Sectional Study," *Health Education and Health Promotion*, vol. 10, no. 3, pp. 565-570, Jul. 2022.
2. . E. H. Rahi, Z. M. Al-Hejaj, and A. M. Tiryag, "Nurses' Knowledge of Nonalcoholic Fatty Liver Disease: A Cross-Sectional Study," *Academia Open*, vol. 9, no. 1, pp. 10-21070, Jun. 2024.
3. . L. Provencher, J. C. Hogue, C. Desbiens, B. Poirier, E. Poirier, D. Boudreau, M. Joyal, C. Diorio, N. Duchesne, and J. Chiquette, "Is Clinical Breast Examination Important for Breast Cancer Detection?" *Current Oncology*, vol. 23, no. 4, pp. e332, Aug. 2016.
4. . G. Kolcu, İ. Kolcu, K. Vatansever, and K. Öngel, "Importance of Breast Self-Examination Education in Primary Care: A Case Report," *Smyrna Medical Case Reports*, vol. 1, pp. 1-4, 2017.
5. . H. M. Sabty, S. B. Dawood, and A. M. Tiryag, "Nurses' Knowledge and Practices on Influenza Vaccination for Pregnant Women," *Jurnal Kebidanan Midwifery*, vol. 10, no. 2, pp. 50-59, Oct. 2024.
6. . L. T. Lankrew Ayalew, B. G. Wale, K. E. Haile, B. T. Zewudie, and M. G. Feleke, "Health-Related Quality of Life and Associated Factors Among Cancer Patients in Ethiopia: Systematic Review and Meta-Analysis," *PLoS One*, vol. 17, no. 12, pp. e0277839, Dec. 2022.
7. . R. M. Silva, M. D. Sanches, N. L. Ribeiro, F. M. Cunha, and M. S. Rodrigues, "Breast Self-Examination by Nursing Professionals," *Revista da Escola de Enfermagem da USP*, vol. 43, pp. 902-908, 2009.
8. . A. M. Tiryag, "Revitalizing Hearts: The Transformative Impact of Pacemaker Therapy on Cardiac Conduction Disorders," *Academia Open*, vol. 9, no. 1, pp. 10-21070, Jun. 2024.
9. . T. McCready, D. Littlewood, and J. Jenkinson, "Breast Self-Examination and Breast Awareness: A Literature Review," *Journal of Clinical Nursing*, vol. 14, no. 5, pp. 570-578, May 2005.
10. . R. M. Silva, M. D. Sanches, N. L. Ribeiro, F. M. Cunha, and M. S. Rodrigues, "Breast Self-Examination by Nursing Professionals," *Revista da Escola de Enfermagem da USP*, vol. 43, pp. 902-908, 2009.
11. . S. J. Abdul-Lateef, "Assessment of Female Nursing Students' Knowledge and Practice About Breast Self-Examination in Mosul University," *Mosul Journal of Nursing*, vol. 7, no. 1, 2019.

12. . M. A. Al-Sajari, "Breast Self-Examination Knowledge and Practice Among Kuwaiti Women," *University of Sharjah Journal of Humanities and Social Sciences*, vol. 15, no. 2, pp. 1-26, 2018.
13. . M. A. Akber, A. M. Tiryag, and A. I. Alobaidi, "Nurses' Knowledge Regarding Cast Complications of Limb Fractures: A Cross-Sectional Study," *Central Asian Journal of Medical and Natural Science*, vol. 5, no. 2, pp. 195-200, Apr. 2024.
14. . S. F. Al-Azmy, A. Alkhabbaz, H. A. Almutawa, A. E. Ismaiel, G. Makhoul, and M. K. El-Shazly, "Practicing Breast Self-Examination Among Women Attending Primary Health Care in Kuwait," *Alexandria Journal of Medicine*, vol. 49, no. 3, pp. 281-286, Aug. 2013.
15. . O. Florence, E. A. Felicia, D. A. Dorcas, and F. A. Ade-Aworetan, "An Assessment of the Knowledge and Practice of Self-Breast Examination (BSE) Amongst University Students," *Health*, vol. 8, no. 5, pp. 409-415, Mar. 2016.
16. . M. A. Mohammad, H. H. Abdul-Ra'aoof, K. A. Razzaq Manahi, and A. M. Tiryag, "Parents' Knowledge and Attitudes toward Testicular Torsion," *Bahrain Medical Bulletin*, vol. 46, no. 1, pp. 1-6, Mar. 2024.
17. . L. A. Sarfo, D. Awuah-Peasah, E. Acheampong, and F. Asamoah, "Knowledge, Attitude and Practice of Self-Breast Examination among Female University Students at Presbyterian University College, Ghana," *American Journal of Research Communication*, vol. 1, no. 11, pp. 395-404, 2013.
18. . M. A. Akber, A. M. Tiryag, and A. I. Alobaidi, "Nurses' Knowledge Concerning Developmental Dysplasia of the Hip: A Cross-Sectional Study," *American Journal of Pediatric Medicine and Health Sciences*, vol. 2, no. 4, pp. 155-160, 2024.
19. . K. S. Salim, W. M. Al-Attar, and B. G. Alani, "Breast Self-Examination Practice among Female Students in Iraq," *Systematic Reviews in Pharmacy*, vol. 12, no. 2, pp. 516-520, Feb. 2021.
20. . H. H. Abdul-Ra'aoof, A. M. Tiryag, and M. A. Atiyah, "Knowledge, Attitudes, and Practice of Nursing Students about Insulin Therapy: A Cross-Sectional Study," *Academia Open*, vol. 9, no. 1, pp. 10-21070, Jun. 2024.
21. . H. H. Abdul-Ra'aoof et al., "Moderate Proficiency in Suture Techniques among Nurses: A Cross-Sectional Study," *Journal of Nursing Education and Practice*, vol. 14, no. 2, pp. 50-58, 2024.
22. . H. H. Abdul-Ra'aoof et al., "The Psychological Impact of Violence on Emergency Department and Intensive Care Unit Nurses: A Cross-Sectional Study," *Research Journal of Trauma and Disability Studies*, vol. 3, no. 4, pp. 228-233, Apr. 2024.
23. . A. M. Tiryag, S. B. Dawood, and S. K. Jassim, "Nurses' Knowledge and Attitudes About Enteral Feeding Complications by Nasogastric Tube in Intensive Care Units," *Rawal Medical Journal*, vol. 48, no. 3, pp. 689-695, Jul. 2023.
24. . Z. S. Dawood, S. K. Jassim, and A. M. Tiryag, "Nurses' Knowledge and Attitudes Toward Deep Vein Thrombosis: A Cross-Sectional Study," *Bahrain Medical Bulletin*, vol. 45, no. 4, pp. 1-8, Dec. 2023.
25. . S. K. Jassim, A. S. Khudhair, and A. M. Tiryag, "Nurses' Knowledge About Electrocardiogram Interpretation: A Cross-Sectional Study," *Rawal Medical Journal*, vol. 48, no. 4, pp. 850-857, Oct. 2023.
26. . M. Jabbar, M. Mohammad, and A. Tiryag, "Changes in Male Reproductive Hormones in Patients with COVID-19," *Georgian Medical News*, no. 342, pp. 42-46, Sep. 2023.
27. . M. A. Mohammad, A. Y. Al-Timary, and A. M. Tiryag, "Safety of Tubeless Double Access Percutaneous Nephrolithotomy Compared to Single Access Approach," *Bahrain Medical Bulletin*, vol. 45, no. 2, pp. 1-5, Jun. 2023.
28. . A. A. Al-Iedan et al., "Bridging the Gap: Enhancing Open Fracture Care in Emergency Nursing," *Academia Open*, vol. 9, no. 1, pp. 10-21070, Jun. 2024.
29. . M. Mohammad, F. Jassim, and A. Tiryag, "Retrograde Intrarenal Lithotripsy Using Disposable Flexible Ureteroscope," *Georgian Medical News*, no. 348, pp. 44-46, Mar. 2024.
30. . M. A. Mohammad, F. A. Jassim, and A. M. Tiryag, "Single-Use Flexible Ureteroscope for the Treatment of Renal Stone," *Revista Latinoamericana de Hipertension*, vol. 18, no. 7, pp. 1-6, Dec. 2023.
31. . Z. Abbass, S. K. Jassim, A. F. Sadeq, S. Hafedh, and A. M. Tiryag, "Determination of Self-Efficacy Level: The Capacity of Patients with Hypertension to Manage Their Chronic Disease," *Indonesian Journal on Health Science and Medicine*, vol. 1, no. 2, pp. 10-21070, Nov. 2024.
32. . S. K. Jassim, Z. Abbass, and A. M. Tiryag, "A Study of Diabetes-Related Emotional Distress Among Patients with Type 2 Diabetes Mellitus: A Cross-Sectional Study," *Academia Open*, vol. 9, no. 2, pp. 10-21070, Oct. 2024.
33. . A. M. Tiryag and H. H. Atiyah, "Nurses' Knowledge toward Bariatric Surgery at Surgical Wards at Teaching Hospitals in Al-Basra City," *Indian Journal of Forensic Medicine & Toxicology*, vol. 15, no. 3, pp. 5152-5159, Jun. 2021.
34. . A. M. Tiryag, M. A. Atiyah, and A. S. Khudhair, "Nurses' Knowledge and Attitudes Toward Thyroidectomy: A Cross-Sectional Study," *Health Education and Health Promotion*, vol. 10, no. 3, pp. 459-465, Jul. 2022.
35. . A. M. Tiryag and H. H. Atiyah, "Nurses' Knowledge Toward Obesity in Al-Basra City," *Annals of the Romanian Society for Cell Biology*, vol. 25, no. 1, pp. 4667-4673, May 2021.
36. . S. S. Hamid, W. D. Ali, and M. A. Atiyah, "Assessing Nursing Students' Knowledge of Sleeve Gastrectomy Effects," *Academia Open*, vol. 9, no. 2, pp. 10-21070, Jun. 2024.
37. . W. D. Ali, D. R. Hashoosh, H. S. Mishet, and S. H. Sabri, "Assessing Nurses' Knowledge on Medication to Reduce Errors in Iraq," *Academia Open*, vol. 9, no. 2, pp. 10-21070, Sep. 2024.
38. . Z. K. Dhahi, S. S. Issa, and L. A. Hameed, "A Study on Pregnant Women's Satisfaction with Primary Health Care Services in Basra," *International Journal of Research in Humanities Arts and Literature*, vol. 3, no. 1, pp. 7-19, Jan. 2015.
39. . S. B. Dwood, H. S. Al-Mosawi, A. S. Khudhair, and A. A. Al-Mussawi, "Evaluation of Effectiveness of

Planned Teaching Programme Regarding Basic Life Support (BLS) Among Nursing Staff in Basra General Hospital," *International Journal of Nursing*, vol. 1, no. 2, pp. 155-166, Dec. 2014.

40. . Z. A. Hassan, A. A. Al-Mussawi, and D. M. Abdulraheem, "Evaluation of Nurses' Knowledge of Patient Safety Protocols," *Journal of Health Research*, vol. 8, no. 4, pp. 1-6, 2015.