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Evaluating the Use of Breast Self-Examination (BSE) for Recognizing Breast Cancer Awareness Among Jordanian Students and Workers in Medical Fields

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Background: Globally, breast cancer (BC) is the most commonly detected neoplasm in women. Breast self-examination (BSE) is an effective screening technique that enables women to learn about the composition of their breasts and assist in the early identification of any potential breast abnormalities.

Objective: This study aimed to assess the degree of BSE knowledge and attention among Jordanian females who are students or professionals in medical disciplines.

Methods: Participants' knowledge about BSE and related issues was assessed using a self-administered questionnaire. The study invites participation from all females aged 18 and above, through both an online and in-person survey. The study extended invitations to female university students in Jordan across academic levels I, II, III, IV, V, and VI. A scoring system was employed, and the statistical analyses were performed using IBM SPSS Statistics (Version 20.0).

Results: The study had 946 female participants, with 98.41% of them being single. Low BSE practice was reported among 90.49% of the participants (n = 856) and this demonstrated a weak understanding of BC disease, including its possible risks, methods of detection, diagnosis, treatment, signs and symptoms, as well as knowledge about mammography and other related information. Only 27.27% (n = 258) of participants practice BSE once a month and on a regular basis.

Conclusion: BC is considered the most prevalent malignant condition and the second largest cause of cancer-related deaths for women in Jordan. Screening strategies are essential for promptly identifying breast cancer and reducing the associated illness and death rates. It is recommended that women commence performing BSE starting at the age of 18. Furthermore, it is essential to incorporate a learning outcome in the cancer chapters that are directly relevant to the subject of BC and emphasize the significance of BSE for students pursuing a career in the medical area.

Keywords: breast cancer knowledge, self-examination, screening, Jordan

Introduction

BC is a significant issue in both emerging and industrialized nations. Among females, it is the major form of cancer and the likelihood of developing it increases with age.[1,2] The primary factors that increase the risk of BC in females include certain genetic mutations in the genome, a family or personal history of BC, and biopsy-confirmed overgrowth.[3–5] Additional factors that may contribute to the development of breast cancer include a history of early onset or late absence of menstrual cycles, obesity during menopause, current administration of pills for contraception, postmenopausal

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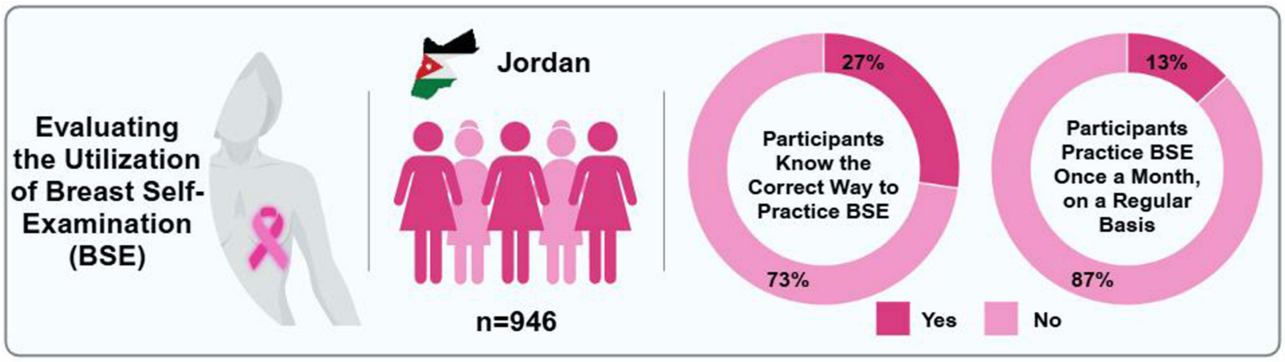
Graphical Abstract



hormone therapy, giving birth for the first time after the age of 30, inequality, specific ethnic characteristics, being exposed to radiation, or daily consumption of alcoholic beverages.[6–9]

BC is a very commonly discovered cancer among women globally.[10] Projected to reach 2.3 million cases and 685,000 deaths in 2020, BC will probably eclipse lung cancer as the most frequently diagnosed cancer and rise to the fifth position in the worldwide cancer mortality rate.[11] Projections indicate that in the year 2070, there will be around 4.4 million instances.[12] As per the Jordanian Ministry of Health, BC is the predominant form of cancer affecting women in Jordan, representing the highest of all cancer cases.[7]

The underlying premise of BC screening is to detect cancer at an early stage, prior to it becoming palpable. The screening test is usually conducted on asymptomatic individuals who have a high risk of developing breast cancer and it may not be beneficial for all women who are diagnosed with BC. Such screening is crucial for reducing morbidity and mortality rates, as well in early detection of BC.[9] In 1997, the American Cancer Society updated the BC screening guidelines and recommended that "women should begin mammography's screening at 40 years annually", they also emphasized that the discontinuation of annual screening should not be based on age.[8]

Globally, it is imperative for women to develop habits of being aware of BSE and maintaining breast health. Acquiring knowledge about the process of breast growth can assist individuals in upholding optimal breast health by understanding their own normality and recognizing any abnormal alterations.[13] Quick diagnosis and effective treatment are crucial for lowering the disease's impact and enhancing survival rates.[14] Understanding the risks and symptoms of BC is also essential in predicting frequency and progression of the disease. For instance, when women possess adequate knowledge about BC, they can actively participate in efforts to decrease the prevalence of BC within their community and prevent the development of cancer in their own bodies.[15] Therefore, the aim of this research was to assess the level of awareness among Jordanian women, particularly those who are students or employed in the medical sector, regarding BC. Furthermore, the correlation between the utilization of BSE and the level of awareness of BC is being examined. Although there are global guidelines to guide BC examinations, their actual application in normal practice is still uncertain.[16] A study done by Yilmaz and Durmus (2016) revealed that the level of adherence to BSE, mammography, and Clinical Breast Examination (CBE) is rather low in Turkey.[17] A separate investigation conducted in Saudi Arabia unveiled that a mere 7.8% of individuals consistently engaged in frequent BSE. Furthermore, women's health attitudes can influence their adherence to practicing BSE.[18] Among the female population in Palestine, cancer accounts for 16% of all reported cancer cases and has a death rate of 9.8% among those who are diagnosed.[11] Additional research was carried out on female students in Jordan, which revealed insufficient knowledge of breast cancer and inadequate implementation of BSE.[19–22]

BSE and breast health awareness are essential practices for women globally. Comprehending the evolution of their breasts throughout time will enable them to recognize what is typical for themselves and identify any abnormal alterations. Early identification, diagnosis, and effective treatment of breast cancer are crucial to alleviating the disease's

burden and enhancing survival rates. Consequently, awareness of the risks and symptoms of BC is crucial in influencing the occurrence and progression of the disease. If females are sufficiently educated about breast cancer, they can aid in reducing its occurrence in their society and help prevent the disease in themselves.[13,23,24]

The main objective of the present study was to analyze the knowledge and attention of BC prevention measures as well as examine the impact of health-related actions on BSE among a cohort of females aged ≥18 in Jordan. Furthermore, this study aims to determine the relation between health beliefs (specifically perceived vulnerability, obstacles, severity, faith, advantages, and health ambition) and the frequency of BSE among female Jordanian students and medical professionals.

Methods

Study Design

A cross-sectional design was used to assess the levels of BSE commitment and practice among Jordanian female students enrolled in medical fields. A self-administered survey was developed, which could be filled out either online (using Google Forms) or in person. Data was collected from January to April 2024.

Ethical Approval

The Institutional Review Board (IRB) at the Faculty of Applied Medical Sciences, the Hashemite University, Zarqa, 13133, Jordan, revised and approved this study on No. 9/3/2023/2024 (IRB number).

Questioner Items

All survey participants had to answer all survey items for successful submission and study participation. We used eleven items—age, number of children, household member, marital status, year of college, study major, mother educational level, father educational level, previous breast problems, family history of breast problems, and family history of breast cancer—to assess the general characteristics of the study participants.

The questions of BSE practice were coded as 1 for the correct answer and 0 for the incorrect one; the total score was calculated, and the levels were considered as (good BSE score for participants who answered at least 5 questions out of 8 correctly and low BSE score for participants who scored 4 and lower). Two logistic regression models were used to determine the association between the demographic variables and BSE practice level. The level of statistical significance was set at p-values <0.050.

Statistical Analysis

Data were assembled in Microsoft Excel, and statistical analyses were conducted in the Statistical Package for the Social Sciences (IBM SPSS). The demographic data was represented by the mean and the SD of the continuous variable (age, number of children, and household members) and by the prevalence of the levels of the categorical variables (all the other variables). We selected a sample of 946 females for this study, as SPSS found that this number of samples is sufficient, given the number of students and medical professionals in Jordan.

Results

General Characteristics of Studied Population

The overall number of participants recruited and included in the final analysis was 946 females from the different medical colleges. The mean age of the studied population was 20.40 ± 1.71. The vast majority of the recreated students were single (n = 931, 98.41%), in the third year of the study (n=398, 42.07%), from the medical laboratory science collage (n = 204, 21.56%), not suffering from previous breast problems (n = 912, 96.41%), and without family history of breast problems (n = 850, 89.85%) nor breast cancer (n = 850, 89.85%), as shown in Table 1.

Table 1 Demographic Variables of Studied Population

		Mean ± SD
Age		20.40 ± 1.71
Number of children		0.73 ± 0.59
Household member		6.84 ± 1.75
		N (%)
Marital status	**Married**	15 (1.59)
	Single	931 (98.41)
Year of college	**1**	179 (18.92)
	2	210 (22.20)
	3	398 (42.07)
	4	120 (12.68)
	5	35 (3.70)
	6	4 (0.42)
Study major	**Medicine**	119 (12.58)
	Nutritionist	203 (21.46)
	Medical laboratory science	204 (21.56)
	Nursing	131 (13.85)
	Physiotherapy	141 (14.90)
	Pharmacist	135 (14.27)
	Pharma D	13 (1.37)
Mother educational level	**University level**	518 (54.76)
	Secondary	367 (38.79)
	Primary	51 (5.39)
	No	10 (1.06)
Father educational level	**University level**	525 (55.50)
	Secondary	322 (34.04)
	Primary	91 (9.62)
	No	8 (0.85)
Previous breast problem	**Yes**	34 (3.59)
	No	912 (96.41)
Family history of breast problem	**Yes**	96 (10.15)
	No	850 (89.85)
Family history of breast cancer	**Yes**	96 (10.15)
	No	850 (89.85)

Breast Self-examination (BSE) Practice Assessment

Low BSE score was reported among 90.49% of the participants (n = 856). While 63.85% (n = 604) of participants wrongly identified the health professionals as the responsible party for BSE procedure. Only 27.27% (n = 258) of participants practice BSE once a month and on a regular basis, 29.18% (n = 276) of participants know the correct way to practice BSE, and 13.11% (n = 124) of participants practice BSE once a month and on a regular basis.

Not experiencing breast problems has been the driving cause of not practicing BSE on a regular basis (n = 340, 35.94%), and approximately half of the participants were correctly defining the clinical breast exam (CBE) as a medical examination performed by a trained healthcare provider (n = 500, 52.85%) as shown in Table 2.

Table 2 Evaluation of BSE Practice

		N (%)
Who performs breast self-examination.	**Self**	258 (27.27)
	Health professionals	604 (63.85)
	Others	84 (8.88)
Breast self-examination is important in detecting breast cancer early	**Strongly agree**	643 (67.97)
	Agree	250 (26.43)
	Neutral	48 (5.07)
	Disagree	5 (0.53)
	Strongly disagree	0 (0.00)
At what age should a girl begin breast self-examination	**At the age 20 years**	354 (37.42)
	21–30 years	295 (31.18)
	31–40 years	193 (20.40)
	More than 40 years	104 (10.99)
How often should breast self-examination be done	**Once a month and on a regular basis**	258 (27.27)
	Once 2 months and on a regular basis	85 (8.99)
	Once 3–5 months and on a regular basis	172 (18.18)
	Once annually and on a regular basis	214 (22.62)
	At any time and not on a regular basis	30 (3.17)
	I do not know	187 (19.77)
How do you perform breast self-examination	**Using one finger**	17 (1.80)
	"Using the pads of the three middle fingers"	276 (29.18)
	"Using the three middle fingers and the palm of the hand"	202 (21.35)
	There is no certain procedure	451 (47.67)

(*Continued*)

Table 2 (Continued).

		N (%)
How often CBE should be done in female aged 20–40 year	**Once every 6 months**	239 (25.26)
	Once every 1 year	323 (34.14)
	Once every 2–3 years	110 (11.63)
	I do not know	274 (28.96)
How often do you practice breast self-examination	**At any time and not on a regular basis**	179 (18.92)
	Once a month and on a regular basis	124 (13.11)
	Once annually and on a regular basis	62 (6.55)
	Once 3–5 months and on a regular basis	65 (6.87)
	Once 2 months and on a regular basis	28 (2.96)
	I do not know	488 (51.59)
If you do not practice breast self-examination regularly then what are the reason (more than one answer is possible)	**I do not feel comfortable doing this**	45 (4.76)
	I do not have a breast problem	340 (35.94)
	I do not have a special room	16 (1.69)
	I do not know how to do that	266 (28.12)
	I do not think i should	103 (10.89)
	I am afraid	41 (4.33)
	I am busy	111 (11.73)
	Too frequent to practice	21 (2.22)
	Any other reasons	3 (0.32)
What is the clinical breast examination CBE	**"It is a medical breast examination performed by the woman herself"**	110 (11.63)
	It is a medical examination performed by a trained healthcare provider"	500 (52.85)
	It is a self-examination performed by the woman herself	48 (5.07)
	I do not know	288 (30.44)
Do you know how often CBE should be done to a woman aged 40 years and more	**Once every 6 months**	463 (48.94)
	Once every 1 year	203 (21.46)
	Once every 2–3 years	37 (3.91)
	I do not know	243 (25.69)
Total practice level	**Good practice**	90 (9.51)
	Low practice	856 (90.49)

Abbreviations: N, Number; %, percentage.

Impact of General Demographic Variables on Practice Level and Practicing BSE Regularly

The logistic regression models were performed to determine the association between BSE practice level and demographic variables. Age, number of household members, participants who studied nutrition, medical laboratory science, and pharmacist, suffered from previous breast problems, and enrolled in BES education sessions were significantly correlated (Table 3). In addition to the previously mentioned variables that were also significantly associated with practicing BSE regularly, participants who studied physiotherapy were significantly correlated with practicing BSE on a regular basis (Table 4).

Table 3 Impact of General Demographic Variables on Practice Level

BSE Practice Level		N (%)		OR (95% CI, p-value)	
		Good Practice (n = 90)	Bad Practice (n = 856)	Univariable	Multivariable
Age	Mean (SD)	20.68 ± 1.53	20.37 ± 1.73	1.09 (0.98–1.21, p = 0.018)	1.05 (1.02–1.19, p = 0.014)
Marital status	Married	3 (3.33)	12 (1.40)	-	-
	Single	87 (96.67)	844 (98.60)	2.43 (0.67–8.76, p = 0.176)	2.30 (0.59–9.02, p = 0.232)
Children	Mean (SD)	1.00 ± 0.00	0.69 ± 0.63	2.62 (0.17–40.61, p = 0.081)	0.48 (0.17–40.61, p = 0.081)
Household members	Mean (SD)	6.51 ± 1.42	6.88 ± 1.78	0.25 (0.77–1.01, p = 0.002)	0.13 (0.54–0.87, p = 0.002)
Study major	Radiologist	20 (22.22)	99 (11.57)	-	-
	Nutritionist	12 (13.33)	191 (22.31)	3.28 (1.54–6.99, p = 0.002)	0.43 (0.19–0.98, p = 0.043)
	Medical laboratory science	13 (14.44)	191 (22.31)	3.03 (1.45–6.35, p = 0.003)	0.43 (0.20–0.94, p = 0.034)
	Nursing	23 (25.56)	108 (12.62)	0.97 (0.50–1.87, p = 0.923)	1.23 (0.62–2.44, p = 0.555)
	Physiotherapy	13 (14.44)	128 (14.95)	1.94 (0.92–4.09, p = 0.083)	0.81 (0.36–1.81, p = 0.608)
	Pharmacist	8 (8.89)	127 (14.84)	3.27 (1.38–7.75, p = 0.007)	0.35 (0.14–0.86, p = 0.023)
	Pharma D	1 (1.11)	12 (1.40)	2.47 (0.30–20.12, p = 0.397)	0.38 (0.04–3.40, p = 0.389)
Mothers' education level	Illiterate	2 (2.22)	8 (0.93)	-	-
	Primary school	5 (5.56)	46 (5.37)	2.30 (0.38–13.96, p = 0.365)	0.29 (0.03–2.54, p = 0.263)
	Secondary education	33 (36.67)	334 (39.02)	2.53 (0.52–12.41, p = 0.253)	0.17 (0.02–1.37, p = 0.095)
	University education	50 (55.56)	468 (54.67)	2.34 (0.48–11.32, p = 0.291)	0.18 (0.02–1.52, p = 0.115)
Fathers' education level	Illiterate	1 (1.11)	7 (0.82)	-	-
	Primary school	7 (7.78)	84 (9.81)	1.71 (0.18–15.98, p = 0.636)	1.12 (0.07–17.74, p = 0.936)
	Secondary education	31 (34.44)	291 (34.00)	1.34 (0.16–11.23, p = 0.787)	2.21 (0.13–37.75, p = 0.585)
	University education	51 (56.67)	474 (55.37)	1.33 (0.16–11.01, p = 0.793)	2.31 (0.14–39.68, p = 0.563)

(*Continued*)

Table 3 (Continued).

BSE Practice Level		N (%)		OR (95% CI, p-value)	
		Good Practice (n = 90)	Bad Practice (n = 856)	Univariable	Multivariable
Previous breast problem	Yes	10 (11.11)	24 (2.80)	-	-
	No	80 (88.89)	832 (97.20)	4.33 (2.00–9.38, $p < 0.001$)	4.58 (2.02–10.42, $p = 0.007$)
Familial history of breast problem	Yes	8 (8.89)	88 (10.28)	-	-
	No	82 (91.11)	768 (89.72)	0.85 (0.40–1.82, $p = 0.678$)	0.79 (0.36–1.74, $p = 0.563$)
Familial history of breast cancer	Yes	8 (8.89)	88 (10.28)	-	-
	No	82 (91.11)	768 (89.72)	0.85 (0.40–1.81, $p = 0.678$)	0.79 (0.36–1.74, $p = 0.563$)
Previous education session	Yes	59 (65.56)	333 (38.90)	-	-
	No	31 (34.44)	523 (61.10)	2.99 (1.90–4.72, $p < 0.001$)	2.61 (1.56–4.29, $p < 0.001$)

Table 4 Impact of General Demographic Variables on Practicing BSE Regularly

Do You Practice BSE Regularly?		N (%)		OR (95% CI, *p*-value)	
		Yes (n= 124)	No (n= 822)	Univariable	Multivariable
Age	Mean (SD)	20.68 ± 1.40	20.36 ± 1.75	1.10 (0.99–1.20, $p < 0.001$)	0.85 (0.69–0.99, $p < 0.001$)
Marital status	Married	3 (2.42)	12 (1.46)	-	-
	Single	121 (97.58)	810 (98.54)	1.67 (0.47–6.02, $p = 0.430$)	1.39 (0.36–5.45, $p = 0.633$)
Children	Mean (SD)	1.00 ± 0.00	0.69 ± 0.63	2.62 (0.17–10.61, $p = 0.068$)	0.69 (0.03–6.78, $p = 0.077$)
Household members	Mean (SD)	6.98 ± 1.56	6.82 ± 1.78	1.05 (0.95–1.17, $p < 0.001$)	0.73 (0.61–0.87, $p = 0.037$)
Study major	Radiologist	24 (19.35)	95 (11.56)	-	-
	Nutritionist	22 (17.74)	181 (22.02)	2.12 (1.13–3.98, $p = 0.019$)	0.62 (0.32–1.22, $p = 0.167$)
	Medical laboratory science	16 (12.90)	188 (22.87)	3.03 (1.54–5.98, $p = 0.001$)	0.41 (0.20–0.83, $p = 0.013$)
	Nursing	34 (27.42)	97 (11.80)	0.74 (0.41–1.34, $p = 0.313$)	1.60 (0.86–2.95, $p = 0.139$)
	Physiotherapy	10 (8.06)	131 (15.94)	3.23 (1.47–7.07, $p = 0.003$)	0.43 (0.19–0.97, $p = 0.041$)
	Pharmacist	18 (14.52)	117 (14.23)	1.67 (0.86–3.28, $p = 0.130$)	0.68 (0.33–1.39, $p = 0.680$)
	Pharma D	2 (1.61)	11 (1.34)	1.52 (0.41–3.26, $p = 0.308$)	0.89 (0.07–4.65, $p = 0.322$)
Mothers' education level	Illiterate	1 (0.81)	9 (1.09)	-	-
	Primary school	7 (5.65)	44 (5.35)	0.70 (0.08–6.40, $p = 0.751$)	1.18 (0.08–17.23, $p = 0.904$)
	Secondary education	48 (38.71)	319 (38.81)	0.74 (0.92–6.00, $p = 0.776$)	0.77 (0.05–10.92, $p = 0.844$)
	University education	68 (54.84)	450 (54.74)	0.74 (0.09–5.90, $p = 0.772$)	0.70 (0.05–10.07, $p = 0.793$)

(*Continued*)

Table 4 (Continued).

Do You Practice BSE Regularly?		N (%)		OR (95% CI, *p*-value)	
		Yes (n= 124)	No (n= 822)	Univariable	Multivariable
Fathers' education level	Illiterate	1 (0.81)	7 (0.85)	-	-
	Primary school	8 (6.45)	83 (10.10)	1.48 (0.16–13.61, $p = 0.748$)	0.51 (0.04–7.40, $p = 0.620$)
	Secondary education	42 (33.87)	280 (34.06)	0.95 (0.11–7.94, $p = 0.964$)	1.08 (0.08–15.71, $p = 0.958$)
	University education	73 (58.87)	452 (54.99)	0.89 (0.11–7.30, $p = 0.909$)	1.24 (0.09–18.05, $p = 0.877$)
Previous breast problem	Yes	22 (17.72)	12 (1.46)	-	-
	No	102 (82.28)	112 (13.63)	3.89 (1.88–8.09, $p < 0.001$)	3.85 (1.77–8.34, $p < 0.001$)
Familial history of breast problem	Yes	15 (12.10)	81 (9.85)	-	-
	No	109 (87.90)	741 (90.15)	1.26 (0.70–2.26, $p = 0.442$)	1.16 (0.63–2.13, $p = 0.645$)
Familial history of breast cancer	Yes	15 (12.10)	81 (9.85)	-	-
	No	109 (87.90)	741 (90.15)	1.26 (0.70–2.26, $p = 0.442$)	1.16 (0.63–2.13, $p = 0.645$)
Previous education session	Yes	73 (58.57)	319 (38.81)	-	-
	No	51 (41.13)	503 (61.19)	2.26 (1.54–3.31, $p <0.001$)	1.90 (1.25–2.89, $p = 0.003$)

Discussion

BSE is considered an essential tool in the early detection and diagnosis of breast cancer, which is gradually makes its way to the top, being the leading cause of cancer-related diseases and deaths in Jordan, mostly among women. Therefore, the significance of BSE goes hand in hand with annual clinical screening of the breast and surrounding tissue in order to allow for the earliest and most accurate detection of breast cancer.

BSE is a self-examination of the breasts performed by the individual in order to inspect the breast and surrounding tissue for any lumps that could potentially be harmful. BSE should be done consistently, once a month and on a regular basis, in order to identify whether there is a difference within the breast tissue or not, indicating the presence or absence of the lumps in question. The best BSE method consists of using the pads of your three middle fingers and applying multiple levels of pressure to the tissue to be sure to feel the different depths of the breast.

In our study, BSE knowledge was assessed across 946 Jordanian women involved in healthcare studies, of whom the majority were university students in their 20s. The results of our survey showed very low BSE score alongside low knowledge of the matter, with only about 13.11% of participants in our study showing consistent and regular monthly BSE practice, alongside 27.27% of survey takers being aware of the importance of consistent BSE practice. The most common reason for not attempting BSE is the belief among women that they do not have any breast problems (35.94%), due to not experiencing any symptoms or pain, the second most common reason was not having any knowledge regarding the correct method of performing BSE (28.12%).

Another study conducted by Ahmad et al aimed to evaluate the knowledge and awareness regarding breast cancer across Jordanian women between the ages of 20 and 60. The study revealed that the vast majority of participants were aware of breast cancer and its fatal consequences, with social media being the primary source of information. However, despite this clear awareness, only about one-third of the participants practiced BSE regularly.[7]

Another study conducted in Iraq by Ewaid et al showed that low BSE score comes from a lack of information and comprehension, as well as not being able to perform the BSE technique correctly, leading to less than half of the participants practicing BSE, which corresponds to our study where 28.12% of women stated that they do not know how

to perform BSE using the proper technique, making it the second most common reason for not performing BSE after thinking that they do not have a breast problem (35.94%).[25]

Jobran et al conducted a research study in the West Bank, Palestine, which involved 467 female participants, aged 20 and above. The questionnaire aimed to assess the participants' understanding of breast cancer. The participants identified social media, university studies, and healthcare experts as the primary sources of information.[4] Similarly, BSE practice in the West Bank was low, showing that only about 30.6% of participants practice it regularly. This is despite the fact that 84% of the questionnaire partakers' awareness about BSE. In the same manner, other studies conducted in the UAE, Gaza, Yemen, Iraq, and Sudan also reported low rates of BSE score. The majority of individuals (67.8%) demonstrated a low level of knowledge regarding BC. However, educational programs and interventions are significantly increasing awareness and knowledge of BC, its symptoms, and the importance of screening. In comparison to our study, Jorbran et al's study[4] depicted that the main causes of not performing BSE were the absence of breast problems, insufficient understanding of how to perform BSE, fear, and time constraints.

Our study demonstrated several strengths alongside limitations. It successfully collected input from various healthcare professionals, encompassing a wide range of fields, such as pharmacists, rather than being restricted to a specific group of workers or students. Additionally, the questionnaire played a role in increasing awareness regarding BSE and the importance of consistent and regular self-examination among young women and students. However, the limitations subsumed under our study mainly arose from the shortcomings in the amount of data collected from healthcare workers as well as older ladies. The data predominantly consisted of university students who had not yet worked in hospitals or clinics. Additionally, the age distribution could have been wider rather than the narrow window of age participants in our study.

Conclusion

In conclusion, breast cancer is the most common cancer in women and can be fatal if not discovered early. People with advanced detection skills live longer and have a better quality of life. Many methods have been developed to help detect malignant cancer early. Mammography and CBE are the two diagnostic methods recommended by the WHO. BSE is a secondary approach in the absence of CBE and mammography, despite its effectiveness in raising awareness and detecting breast abnormalities. To diagnose breast cancer early, the BES approach must be promoted due to its efficacy and simplicity, which require no specialized equipment or a health worker. Including self-examination techniques for the most prevalent Middle Eastern cancers in the medical education part on cancer is an effective way to learn this information. Additionally, motivating the same students to create small animated videos that demonstrate BES practice. These videos can be shared on social media to help the community. BC is Jordan's most common cancer and the second leading cause of cancer deaths in women. To detect breast cancer early and reduce sickness and death, screening is vital. Beginning BSE at 18 is suggested for women. In addition, cancer chapters should have a learning outcome directly related to BC and underline the importance of BSE for medical students.

Ethical Approval

All participants provided informed consent, in accordance with the Declaration of Helsinki.

Disclosure

The authors report no conflicts of interest in this work.

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