

Impact of Education on Breast Cancer Precocious Detection and Prevention: Perception of Breast Self- Examination Trainees in Al-Qurrayat, KSA

Eman Fawzy El Azab^{1*}, Bi Bi Zainab Mazhari¹, Fatma Ahmed Mohamed¹, Hassnaa Eid Shaban², Abdelbaset Mohamed Elsbali¹, Ezeldine Khalafalla¹, Munayfh Ateeq Alruwailai¹, Ibtisam AbdIGadr Arrowaili¹

¹Department of Clinical Laboratory Sciences, College of Applied Medical Sciences, Jouf University, Al-Qurrayat, KSA

²Department of Nursing, College of Applied Medical Sciences, Jouf University, Al-Qurrayat, KSA

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*Corresponding author: Eman Fawzy El Azab

Abstract

Introduction: Breast cancer is the furthestmost typically identified life-threatening most cancers in female and the foremost motive of most cancers loss of life among women. **Aims and Objectives:** Due to the absence of information involving breast cancer in Jouf region, KSA. Our study was directed to discover out the level of their knowledge about breast cancer and practice of breast self-examination amid the study population. **Material and Methods:** Descriptive study including 755 Saudi volunteers living in Al- Qurrayat, Northern Saudi Arabia. Only for women agreeing to take part in the breast self-examination workshop had been blanketed and completed items of a scale assessing the knowledge level, attitudes regarding breast self-examination. **Results:** A total of 618/755 (81.9%) participant (622 females and 133 males), successfully completed the data. the majority of the participant about 34.7% were between 26-35 year. the level of knowledge in the participants about breast cancer perception according to their education is 16.6% of the respondents had no knowledge, about 5.7% of them complete the university. Also, 65.4% of the respondents had little and moderate knowledge and only about 17.4% had a good knowledge of breast cancer. In addition, 14.4% of female and 0.3 % of the male population had no knowledge about breast self-examination. Furthermore, 345 out of 755(45.7%) study population interested to get information about breast cancer were university educated. **Conclusion:** breast self-examination necessities to be taught to all women, irrespective of their education level.

Keywords: Breast Cancer, Breast self- examination, Education, Knowledge.

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INTRODUCTION

Breast cancer (BC) is the utmost crucial lethal public health trouble between women [1]. BC is one of the furthestmost public cancers in women through the world accounting for 23% of all cancer types [2]. In 2012, about 1.7 million women were detected with BC over all the world [3]. Since 2008, BC occurrence has enlarged extra than 20%, while mortality has augmented by 14%. Also, BC is the furthestmost common reason of death between women (522000 deaths in 2012) in 140 of 184 countries worldwide, BC is the most commonly diagnosed cancer between [3]. Although the comparatively low occurrence of BC in KSA when compared with different countries, it has been well-known to be the most widespread cancer between the Saudi female for the last 12 years (KSA Cancer Registry, 1994–2005).

Statistics on female patients with breast carcinoma from a number of areas in KSA indicated that most sufferers belonged to the age between 40–50 years and have been mainly premenopausal [4]. The upturn in the existence of BC is being observed between women in the world. The occurrence of BC and the subsequent progress of cancer incline to be greater aggressive in younger women in contrast with BC development in the older population [1].

Breast self-examination (BSE), clinical breast examination (CBE) and mammography are commended for the discovery of breast cancer at a precocious stage [5]. The practice of BSE each month has been informed to be significantly important for the precocious detection of BC mainly between women above 20 years of age [6]. While the acceptance of these methods by women relies upon many factors as well as the attitude

and motivation of their physicians to breast cancer examination [7].

The causes for the low rate of BSE and occasionally reluctance to undergo screening between women contain the fear of discovery that they have BC, insufficient knowledge concerning how to do BSE, and absence of awareness about what to do if swelling is observed [8,9]. Specified the extraordinary and rising encumbrance of disease due to late discovering of BC, early detection and posterior rapid treatment are the only ways to confirm long-term survival, and awareness of BC and BSE appears to be a vital choice for precocious detection of BC [10, 11].

Awareness has to be offered to the augmented incidence of BC in younger Saudi women by way of evaluating the tasks of precocious detection and preventive programs. Furthermore, the link between the frequent danger elements and BC have to be recognized. Healthcare professionals have a higher impact on women's effective awareness of breast cancer and the motivation to practice screening methods for early detection [12]. Additionally, levels of knowledge of healthcare workers providers' against BC are significant determinants of their effect on the acceptance of screening approach via female in their areas [13, 14].

The major aim of the current find out about was to realize the gaps in BC awareness and to determine the awareness of distinctive aspects of BC amid the numerous culture of women in Al-Qurrayat, North Saudia Arabia.

OBJECTIVE

The current study was undertaken to:

- Assess the knowledge, attitude, and practice of Breast Self-Examination in Al-Qurrayat, North Saudia Arabia.
- Provide essential information about breast cancer status in Jouf Region for subsequent strategies for community service and research.
- Improvement of breast cancer awareness via the distribution of awareness materials

MATERIAL AND METHODS

Study Design and Sample Population

A descriptive study covered 755 Saudi volunteers residing in the city of Qurayyat, Northern Saudi Arabia. Participants have been focused on one of a kind public settings in the city. Participants were selected through simple random approach regardless of age, gender, level of education or occupation. Inclusion criteria were age amid 20 and 59 years and consent to participation in the study. Women who had previously obtained a BC diagnosis had been excluded.

Only for women volunteers, these approving to take part in the breast self-examination workshop were investigated for the presence of breast lumps. While males' members had been worried in serving as an inner manipulate for the obtained statistics regarding breast most cancers preceding knowledge.

Data Collection

A purposeful inquiry was used to be designed and used for getting the fundamental data. The questionnaire included questions: age, sex, and education level, awareness and interest to know about breast cancer.

Data Analysis

Microsoft Excel was used for data entry and data management, and SPSS Statistics Statistical Package for Social Sciences (SPSS Statistics version 16) was used for analysis for data analysis.

Ethical Consent

All the volunteers participating in the present study were knowledgeable in detail about the study and their written consent was achieved. The knowledgeable ethical consent structure used to be intended and authorized by means of by the ethical committee of the Applied Medical Science (Qurayyat, Jouf University, Saudi Arabia) Research Board.

RESULTS

Socio demographic characteristics of Participant

There was a total of 618/755 (81.9%) participant (622 females and 133 males) volunteered and correctly executed the data. Table-1 illustrated that the majority of the participant about 34.7% were between 26-35 year. Also, more than half of them had been university educated.

Table-1: Characteristics of the Participants

Characteristics	No.	%
Sex		
Female	622	82.2
Male	133	17.6
Age group		
<25years	93	12.3
26-35	263	34.7
36-45	149	19.7
46-55	95	12.5
>56+	26	3.4
Education		
None	88	11.6
Basic	102	13.5
Secondary	139	18.4
University	425	56.1

Participant' knowledge and perception on breast cancer:

Level of breast cancer knowledge among participants according to sex was shown in the table-2 & Figure-1.

Table-2: Level of breast cancer knowledge among participants according to sex

Level of breast cancer knowledge	Sex				Total	
	Female		Male		No.	%
	No.	%	No.	%		
Nothing	97	12.84	28	3.70	125	16.55
Little	201	26.62	42	5.56	243	32.18
Moderate	203	26.89	48	6.35	251	33.24
Good	117	15.45	13	1.72	130	17.21
Total	618	81.85	131	17.35	749	99.20

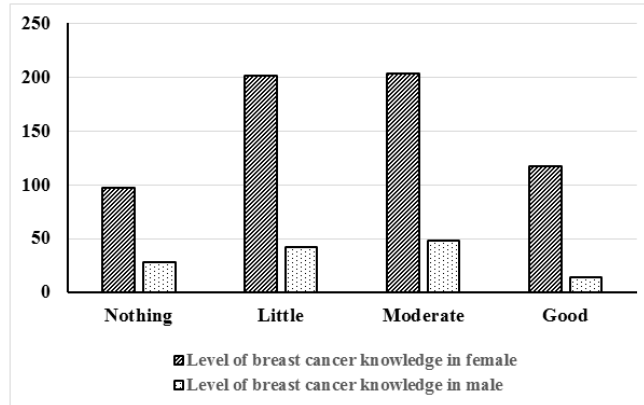


Fig-1: Level of breast cancer knowledge among participants according to sex

However, the level of knowledge in the participants about breast cancer perception according to their education is shown in Table-3 and Figure-2. 125 (16.6%) of the respondents had no knowledge, about

5.7% of them complete the university. Also, 65.4% of the respondents had little and moderate knowledge and only about 17.4% had a good knowledge of breast cancer.

Table-3: Level of breast cancer knowledge among participants according to education

Level of breast cancer knowledge	Education								Total	
	None		Basic		Secondary		University		No.	%
	No.	%	No.	%	No.	%	No.	%		
Nothing	26	3.44	29	3.84	27	3.57	43	5.69	125	16.55
Little	43	5.69	50	6.62	42	5.56	108	14.30	244	32.31
Moderate	16	2.12	21	2.78	61	8.08	151	20.00	250	33.11
Good	3	0.40	2	0.26	6	0.79	120	15.89	131	17.35
Total	88	11.65	102	13.51	136	18.01	422	55.89	750	99.33

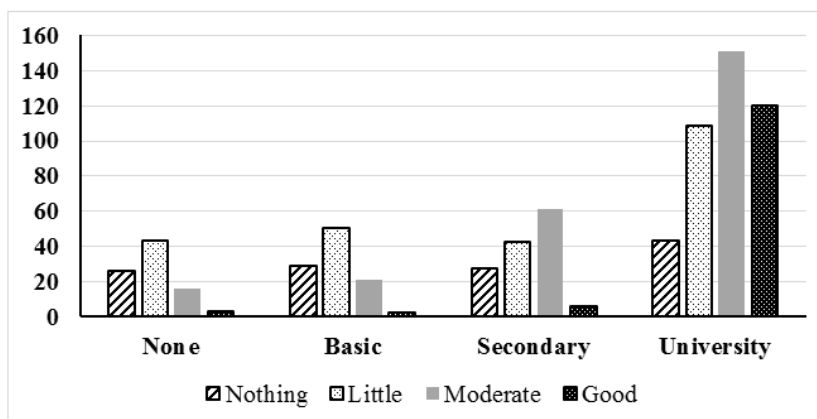


Fig-2: Level of breast cancer knowledge among participants according to education

Care To Know More about Breast Cancer

534 (70.7%) female from ordinary study populace have been care to know more about breast cancer than 83 (10.9%) female whom didn't care as

illustrated in the Table-4. Based on sex, only 63(8.3%) male and 534 (70.7%) female were care to know more about breast cancer.

Table-4: Level of breast cancer knowledge among participants according to sex

Care to know more about Breast cancer	Sex				Total	
	Female		Male			
	No.	%	No.	%	No.	%
No	83	10.99	64	8.47	147	19.47
Yes	534	70.72	63	8.34	597	79.07
Total	617	81.72	127	16.82	744	98.54

Table-5 reveals the level of breast cancer knowledge among participants in accordance to education. About 597 (79.1%) overall study population were cared to know more about breast cancer while 147

(19.5%) from the overall find out about populace have been didn't care to be aware more about breast cancer. Also, 417 (55.2%) have been university educated.

Table-5: Level of breast cancer knowledge among participants according to education

Level of breast cancer knowledge	Education								Total	
	None		Basic		Secondary		University			
	No.	%	No.	%	No.	%	No.	%	No.	%
No	15	1.98	32	4.23	43	5.69	57	7.54	147	19.47
Yes	70	9.27	70	9.27	95	12.58	360	47.68	597	79.07
Total	85	11.25	102	13.50	138	18.27	417	55.23	742	98.27

Care to know more about breast cancer self-examination

Table 6 & 7 illustrate the knowledge about breast self-examination among study populations in accordance to sex and education. 14.4% of female and 0.3 % of male population had no knowledge about breast self-examination. 27.5% of female and 0% of

male had little knowledge of breast self-examination. About 28.6% of female participants had top knowledge in contrast to males (0%). Also, 14.7% of overall the study population did not have any knowledge about breast self-examination. 27.5% had poor knowledge about knowledge of breast self-examination and 28.6% of the study population had good knowledge.

Table-6: Level of knowledge about Breast cancer self-examination among participants according to sex

Knowledge about breast self-examination	Sex				Total	
	Female		Male			
	No.	%	No.	%	No.	%
Nothing	109	14.43	2	0.26	111	14.70
Little	208	27.54	0	0	208	27.54
Good	216	28.61	0	0	216	28.61
Total	533	70.59	2	0.26	535	70.86

Table-7: level of knowledge about Breast cancer self-examination among participants according to education

Knowledge about breast self-examination	Education								Total	
	None		Basic		Secondary		University			
	No.	%	No.	%	No.	%	No.	%	No.	%
Nothing	11	1.45	22	2.91	24	3.17	53	7.02	110	14.57
Little	18	2.38	22	2.91	47	6.22	121	16.02	208	27.54
Good	22	2.91	10	1.32	16	2.11	167	22.11	215	28.47
Total	51	6.75	54	7.15	87	11.52	341	45.16	533	70.59

The level of knowledge in the study population about breast self-examination according to their education level is depicted in Table-7. About 110 (14.6%) of the study population had no knowledge and 7.0% of them completed the university level education. 27.5% of the Study population had little and moderate knowledge and 28.5% had a good knowledge.

Interesting to family awareness

346(45.8%) female from overall study population were interested to get information about breast cancer than 271(35.9%) female that didn't care as illustrated in the Table-8. Based on only female were interested to get awareness about breast cancer.

Table-8: Interest about family awareness about Breast cancer among participants in KSA according to sex

Interest about family awareness in KSA	Sex				Total	
	Female		Male			
	No.	%	No.	%	No.	%
No	271	35.89	2	0.27	273	36.15
Yes	346	45.82	0	0	346	45.82
Total	617	81.71	2	0.27	619	81.98

Table-9: Interest about family awareness about Breast cancer among participants in KSA according to education

Interest about family awareness in KSA	Education								Total	
	None		Basic		Secondary		University		No.	%
	No.	%	No.	%	No.	%	No.	%		
No	44	5.83	26	3.44	43	5.69	160	21.19	273	36.15
Yes	21	2.78	42	5.56	59	7.81	223	29.53	345	45.69
Total	65	8.61	68	9.01	102	13.51	383	50.72	618	81.85

Table-9 reveals, 345 out of 755 (45.7%) study population interested to get awareness about breast cancer were university educated.

DISCUSSION

Breast cancer (BC) is one of the paramount considerably arising cancers between women all over the world [15]. Hindrance in the diagnosis and treatment of BC declines survival rates [16].

Rendering to the American Academy of Family Physicians, the ratio of demise from BC has dropped over the preceding years owing to the precocious detection and handling. Systematic examination by breast examination and mammogram can aid in the precocious detection of BC [17]. The goal of practice BSE is to make women aware of both the look and the feel of their breasts and assist women to discover any variations as early as possible [18]. Although of disagreement about the value of BSE, the American Cancer Society go on to sustenance the inclusion of BSE as a precocious detection manner [17].

In addition, several studies have informed assistances of BSE as a simple, effective and less expensive method for early detection of BC particularly in developing countries [19].

The present search conducted in Al- Qurrayat, North Saudia Arabia, revealed that about 16.55% of participants' total number did not have any knowledge about breast cancer. Almost 65.42% had poor knowledge about knowledge of breast cancer perception. While about 17.35% of participants had good knowledge. Also, the participants' knowledge about BSE was very poor but a large number of participants care to know more about BC.

Several aspects have been linked with BSE performance, such as professed liability and the level of educational [17, 20].

In our study, the age and the educational level may influence on the demeanor of women toward BSE. Also, in a previous study done by Karayurt *et al.*, [21] said that the percentage of the older age of the women higher in performing BSE examination compared to smaller age. In addition, the level of education in the present study populace should be the crucial aspect contributing to the greater know-how about BSE. Moreover, Hacıhasanoglu and Gozum [22] informed

that education level effects superb variants in dogmas about the efficacy of BSE.

Also, the present study indicated that the educational level is one of the vital elements of better knowledge and attitude to increase awareness about BC risk and superb beliefs concerning BSE. In our study, the education level of women appeared as a large identifying factor for BSE performance.

Furthermore, a large percent of the participants in our study care to know more about BC and BSE. These results are matching with former studies examining awareness and knowledge of BC and practices of BSE between women and university students in Saudi Arabia [1, 23, 24].

CONCLUSION

Generally, our results signpost that the practice of BSE while perceived as being important is no longer frequently practiced. However, this research delivers the main baseline information concerning the knowledge about BC and BCE for precocious detection of breast cancer between females in Al- Qurrayat, North Saudia Arabia.

Also, a higher education level positively knowledge about BC and practices of BSE. Consequently, BSE essentials to be taught to all women, irrespective of their education level. Furthermore, when training women about BSE, hospitals, primary health care clinics, physicians need to appraise this information bearing in the notice the education level of the women.

Awareness has to be given to coaching and encouraging university level educated women to apportion time for breast health despite their concentrated workloads. Finally, the awareness of women without university level education has to focus on training the exact perception of breast self-examination.

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RRFERENCES

1. Ameer, K., Abdulie, S. M., Pal, S. K., Arebo, K., & Kassa, G. G. (2014). Breast cancer awareness and practice of breast self-examination among female

- medical students in Haramaya University, Harar, Ethiopia. *Ethiopia. IJIMS*, 2(2), 109-119.
2. Jemal, A., Bray, F., Center, M. M., Ferlay, J., Ward, E., & Forman, D. (2011). Global cancer statistics. *CA: a cancer journal for clinicians*, 61(2), 69-90.
 3. Ferlay, J., Soerjomataram, I., Dikshit, R., Eser, S., Mathers, C., Rebelo, M., ... & Bray, F. (2015). Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. *International journal of cancer*, 136(5), E359-E386.
 4. El Saghir, N., Khalid, M., El Kinge, A., Seoud, M., Geara, F., Charafeddine, M., & Shamseddine, A. (2006, July). Patterns of Breast Cancer Care in Arab Countries. In *Washington DC, USA: UICC World Cancer Congress* (pp. 8-12).
 5. Yilmaz, D., Bebis, H., & Ortabag, T. (2013). Determining the awareness of and compliance with breast cancer screening among Turkish residential women. *Asian Pac J Cancer Prev*, 14(5), 3281-3288.
 6. Koç, Z., & Sağlam, Z. (2009). Determination of the knowledge and the practice of female patients about breast cancer, preventive measures and breast self examination and effectiveness of education. *Eur J Breast Health*, 5, 25-33.
 7. Montazeri, A., Vahdaninia, M., Harirchi, I., Harirchi, A. M., Sajadian, A., Khaleghi, F., ... & Jarvandi, S. (2008). Breast cancer in Iran: need for greater women awareness of warning signs and effective screening methods. *Asia Pacific family medicine*, 7(1), 6.
 8. Wu, T. Y., Chung, S., Yeh, M. C., Chang, S. C., Hsieh, H. F., & Ha, S. J. (2012). Understanding breast cancer screening practices in Taiwan: a country with universal health care. *Asian Pacific Journal of Cancer Prevention*, 13(9), 4289-4294.
 9. Sreedevi, A., Quereshi, M. A., Kurian, B., & Kamamma, L. (2014). Screening for breast cancer in a low middle income country: predictors in a rural area of Kerala, India. *Asian Pac J Cancer Prev*, 15(5), 1919-1924.
 10. Serey, V. H., Kim, E. S., & Monchy, D. (2011). Preliminary data about female malignant breast tumours in Cambodia. *Asian Pac J Cancer Prev*, 12, 383-5.
 11. Norsaadah, B., Rahmah, M. A., Rampal, K. G., & Knight, A. (2012). Understanding barriers to Malaysian women with breast cancer seeking help. *Asian Pacific Journal of Cancer Prevention*, 13(8), 3723-3730.
 12. Balekouzou, A., Yin, P., Pamatika, C. M., Nambei, S. W., Djeintote, M., Doromandji, E., ... & Mandjiza, D. R. (2016). Assessment of breast cancer knowledge among health workers in Bangui, Central African Republic: A cross-sectional study. *Asian Pacific Journal of Cancer Prevention*, 17(8), 3769-3776.
 13. Liu, L. Y., Wang, F., Yu, L. X., Ma, Z. B., Zhang, Q., Gao, D. Z., ... & Yu, Z. G. (2014). Breast cancer awareness among women in Eastern China: a cross-sectional study. *BMC Public Health*, 14(1), 1004.
 14. Parker, L. M., Rychetnik, L., & Carter, S. M. (2015). The role of communication in breast cancer screening: a qualitative study with Australian experts. *BMC cancer*, 15(1), 741.
 15. Ersumo, T. (2006). Breast cancer in an Ethiopian population, Addis Ababa. *East and Central African Journal of Surgery*, 11(1), 81-86.
 16. Yip, C. H., Taib, N. A., & Mohamed, I. (2006). Epidemiology of breast cancer in Malaysia. *Asian Pacific Journal of Cancer Prevention*, 7(3), 369-374.
 17. Aldabal, B. K., & Koura, M. R. (2016). Risk factors of breast cancer among the primary health-care attendees in Eastern Saudi Arabia. *International Journal of Medical Science and Public Health*, 5(2), 276-81.
 18. Nekhlyudov, L., & Fletcher, S. W. (2001). Is it time to stop teaching breast self-examination?. *Cmaj*, 164(13), 1851-1852.
 19. Yasli, G., Turhan, E., Eser, S., Tozun, M., Oguz, M., & Alpay, F. (2015). Level of knowledge and behavior of family health personnel workers in Izmir about early diagnosis for breast and cervix cancer. *Asian Pacific Journal of Cancer Prevention*, 16(6), 2501-2505.
 20. Nahcivan, N. O., & Secginli, S. (2007, March). Health beliefs related to breast self-examination in a sample of Turkish women. In *Oncology nursing forum*, 34(2):425-432.. Oncology Nursing Society.
 21. Karayurt, Ö., Özmen, D., & Çetinkaya, A. Ç. (2008). Awareness of breast cancer risk factors and practice of breast self examination among high school students in Turkey. *BMC Public Health*, 8(1), 359.
 22. Hacıhasanog˘lu, R., & Gözüm, S. (2008). The effect of training on the knowledge levels and beliefs regarding breast self-examination on women attending a public education centre. *European Journal of Oncology Nursing*, 12(1), 58-64.
 23. Habib, F., Salman, S., Safwat, M., & Shalaby, S. (2010). Awareness and knowledge of breast cancer among university students in Al Madina Al Munawara region. *Middle East Journal of Cancer*, 1(4), 159-166.
 24. Almutairi, A. H., Tamrin, S. B. B. M., Wirza, R., & Ahmad, N. B. (2019). Systematic Review on Knowledge and Awareness of Breast Cancer and Risk Factors Among Young Women. *Advances in Bioscience and Clinical Medicine*, 7(1), 41-47.