

ORIGINAL ARTICLE

Related Pathological and Social Factors that Delay Early Detection of Breast Cancer among Females

Asmaa Tarek Kadhim Al-Hakak^{1,*} and Halah Basim Jawad Mohammed^{1,}

¹Department of Nursing, Al Najaf Al- Ashraf Health directorate, Iraq

Corresponding author:

halla992012@gmail.com

¹Department of Nursing,
Al Najaf Al- Ashraf Health directorate,
Najaf Iraq.

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Abstract

The current study aimed at assessing the factors that hinder early detection of breast cancer among women, and to identify the association between socio-demographic characteristic and women knowledge about ways of early detection and causes for delay in seeking medical help.

Methodology A descriptive design / correlation study is used throughout the present study. A Non-Probability (Purposive Sample) of (150) women with third and more stage of breast cancer (advanced breast cancer) was selected. The data are collected through the utilization of the developed questionnaire by using an interview technique after the estimation of the validity and reliability of the study instrument.

Results The correlation between overall women's knowledge about ways of early detection and their demographic data, it shows that overall women's knowledge have significant positive correlation with each of age, family history of breast cancer and level of education. The result also indicates that the correlation between causes for delay in seeking medical intervention and women demographic data. It shows that there is a significant positive correlation with each of residence and family history of breast cancer and most patients delayed in seeking medicine because of lack of awareness and financial problems.

Conclusion The study concluded that the general assessment is moderate knowledge about early detection of breast cancer among women, and found the significant relationship between family history and residence with knowledge of patient while there is no correlation with other demographic data.

Keywords: Breast cancer, Female, Oncology, Pathological factor.

1 Introduction

Breast cancer is the most common type of cancer seen among women in the world. It is the second leading cause of cancer death in women, world health organization and international agency for research on can-

cer report that, at least, 1/4 of all cancers can be prevented and 3/4 can be treated with existing knowledge, technology, and interventions based on screening in the next 20 years. While some cancers seen in under-developed countries offer poor prognosis,

some cancers, seen in developed countries (prostate, breast, colorectal) have high survival rates in spite of high incidence rates. This result is related to early diagnosis and screening programs in developed countries [1, 2]. Breast cancer is the greatest common cancer among females and represents a major global health problem. Almost 70% of women with breast cancer are aged over 50 and only 5% are younger than 40 years old approximately 700,000 cases are reported annually worldwide [3]. Women in both the developed and less developed world suffer from breast cancer. It is estimated that worldwide over 508,000 women died in 2011 due to breast cancer. Breast cancer survival rates vary greatly worldwide, ranging from 80% or over in North America, Sweden and Japan to around 60% in middle-income countries and below 40% in low-income countries [4]. The American Cancer Society estimated that, in 2012 approximately the American 226,870 women would be diagnosed with 39,510 deaths women are not only being diagnosed with breast cancer in the later stages of the disease but also a higher proportion of younger women in their thirties and forties are clinically presenting with breast cancer [5]. High incidence rate of the cancer in women in the world health organization (WHO). The WHO has recommended a step-wise approach to introducing screening, beginning with the promotion of early diagnosis through public and professional education [6]. Breast cancer increases the number of malignancies among the Iraqi population in general; responsible for about one third of the registered female cancers and almost one quarter of female deaths from the disease within the last two decades. There has been an obvious increase in the incidence rates of breast cancer. Delay in seek-

ing medical advice for symptoms of breast cancer remains an important factor in late diagnosis breast cancer remains an important factor in late diagnosis impact on the individual, society, as well as the impact on the individual, society [7]. The objectives of the current study is to assess the factors that hinder early detection of breast cancer among women, and to identify the association between socio-demographic characteristic and women knowledge about ways of early detection and causes for delay in seeking medical help.

2 Materials & methods

A descriptive design / correlation study was conducted with analytic utility in order to achieve the stated objectives. An assessment tool is adopted and developed by the researcher to assess factors that hinder early detection of breast cancer among women. The questionnaire divided into three main parts (part one contained demographic information, part two included questions related to women's knowledge about ways of early detection Breast Self-Examination, and part three included questions that determine causes for not doing mammogram and clinical breast. Data of studied sample was entered and analyzed using the statistical package for social sciences (SPSS) version 25. Descriptive statistics presented as mean, standard deviation, frequencies and percentages, Inferential Data Analysis presented as Chi-Square test for testing the independency distribution of the observed frequencies, and for measuring the association between the studies variables according to its type.

Table 1: Statistical distribution of study sample (women) by their socio demographic data

Items	Sub-groups	Study group Total = 150	
		Frequency	Percentage
Residency	Rural	79	52.7
	Urban	71	47.3
	Total	150	100%
Smoking	Yes	54	36.0
	No	96	64.0
Family History of Breast Cancer	Yes	52	34.7
	No	98	65.3
Levels of Education	Illiterate	53	35.5
	Primary	19	12.8
	Secondary	32	21.5
	College	23	15.4
	Postgraduate	23	14.8

Table 1 shows statistical distribution of study sample (women) by their socio-demographic data, it explains that the highest percentage of the women's subgroup are live in rural residents (52.7%), those who do not smoke (64%), those with no family history of breast cancer (65.3%), those are illiterate (35.5%). Table 2 it shows that there is an increased percentage of incorrect answers for the second, third and fourth recording: 59.3%, 54% and 78% respectively. The second question is about (The best time to perform (BSE) during the first week from the end of period), the third question is about (The breast is palpated by tips of three middle fingers), while the fourth question indicates (Woman who have oral contraceptive pills should examine her breasts in the same day of taking pills). Total score between (1-1.66) as poor knowledge; moderate is between (1.67-2.3); while good knowledge is above (2.33). Table 2 shows assessment (mean and ratio of scores) of women's knowledge

about ways of early detection. It shows that the assessment of women is (good) for the first and second questions, while it is considered (moderate) for the questions: third, fifth and seventh. Questions, and finally the assessment is (weak) for the second and fourth questions. The second question is about (The best time to perform (BSE) during the first week from the end of period), the third question is about (The breast is palpated by the tips of three middle fingers), the fourth question indicates (Woman who have oral contraceptive pills should examine her breasts. In the same day of taking pills), while the last question is about (Breast calcifications can be seen effectively by mammography). This assessment is based on the statistical scoring system that indicated total score between (1-1.66) as poor knowledge; moderate is between (1.67-2.3); while good knowledge is above (2.33).

Table 2: Statistical distribution of study sample (women) by their socio demographic data

Items		Frequency Total = 150	Percentage	MS	RS (%)	Assess.
Breast self –examination (BSE) is a screening tool for breast cancer done by a woman routinely Once monthly	Incorrect	46	30.7	2.36	39.29	Good
	I don't know	3	2.0			
	Correct	101	67.3			
The best time to perform (BSE) During the first week from the end of period	Incorrect	89	59.3	1.65	27.48	Poor
	I don't know	25	16.7			
	Correct	36	24.0			
The breast is palpated by palm of three middle fingers	Incorrect	81	54.0	1.78	29.69	Moderate
	I don't know	22	14.7			
	Correct	47	31.3			
Woman who have oral contraceptive pills should examine her breasts in the same day of taking pills	Incorrect	117	78.0	1.28	21.30	Poor
	I don't know	27	18.0			
	Correct	6	4.0			
Clinical breast examination is recommended among Women under age of 30 years every 3 years	Incorrect	75	50.0	2.02	33.66	Moderate
	I don't know	0	0.0			
	Correct	75	50.0			
Magnetic resonance image (M R I) is most often used to help with early detection of cancer	Incorrect	13	8.7	0.83	47.24	Good
	I don't know	2	1.3			
	Correct	135	90.0			
Breast calcifications can be seen effectively by mammography	Incorrect	53	35.3	1.93	32.12	Moderate
	I don't know	60	40.0			
	Correct	37	24.7			

MS – mean of scores; RS - ratio of scores

Table 3: Assessment of women's knowledge about ways of early detection.

	Items	Frequency Total = 150	Percentage
Causes for not doing Mammogram	Painful sensation	3	2.0
	Very expensive procedure	3	2.0
	There's no need for this procedure	12	8.0
	Embarrassment	16	10.7
	Fear from being diagnosed breast cancer	116	77.3
Causes for not breast examination	Embarrassment	15	10.0
	Disapproval from husbands	17	11.3
	Fear from being diagnosed by breast cancer	81	54.0
	Young age	4	2.7
	Mistrust in doctors and nurses	10	6.7
	Lack of awareness about this examination	11	7.3
	Not able access to center contently a mammogram	12	8.0
Causes for delay in seeking medical intervention	Lack awareness	20	13.3
	Denial (thinking it was simple mass and it will go)	1	0.7
	Financial problems	78	52.0
	Fear of cancer	9	6.0
	Psychological distress	2	1.3
	Embarrassment	2	1.3
	No pain	11	7.3
	Self-neglecting (because of young age)	18	12.0
	Fear of divorce	7	4.7
Lack of time	2	1.4	

Table 3 This table it , it shows that about (77.3%) and (54%) of the women have fear from being diagnosed breast cancer which prevent them from doing mammogram clinical breast examination respectively, while financial problems made about (52%) causes for delay in seeking medical intervention .

Table 4: Correlation between causes for causes for not doing mammogram and women demographic data.

Demographic Data	Correlation Coefficient	Significance P value	Significance
Residence	0.22	0.16	No Significance
Smoking	0.274	0.18	No Significance
Family history of breast cancer	0.68	0.04	Significance
Level of Education	0.75	0.001	High Significance

Table 4 explains the correlation between overall women's knowledge about ways of early detection and their demographic data, it shows that overall women's knowledge have significant positive correlation ($p < 0.05$) with each of, family history of breast cancer and level of education.

Table 5: Association between overall women's knowledge about ways of early detection and their demographic data.

Demographic Data	Correlation Coefficient	Significance P value	Significance
Residence	0.65	0.05	Significance
Smoking	0.274	0.18	No Significance
Family history of breast cancer	0.55	0.04	Significance
Level of Education	0.28	0.65	No Significance

Table 4,5 explains the correlation between causes for not doing mammogram and women demographic data, it shows that there is a significant positive correlation ($p < 0.05$) with each of residence and family history of breast cancer.

Table 6: Correlation between causes for delay in seeking medical intervention and women demographic data.

Demographic Data	Correlation Coefficient	Significance P value
Residence	0.62	0.05
Smoking	0.24	0.14
Family history of breast cancer	0.59	0.03
Level of Education	0.22	0.64

(6) explains the correlation between causes for delay in seeking medical intervention and women demographic data, it shows that there is a significant positive correlation ($p < 0.05$) with each of residence and family history of breast cancer.

3 Discussion

Table 1 shows that the residency area more than half of our sample (52.7%) living rural area .in similar way Das et al ., [8] in Eastern Ethiopia who found that study participants resident in rural more than urban. Concerning educational level, about one third of woman 35.6% was unread and write. this higher percentage of women with such level of education may be lead them disoriented toward phenomena of breast cancer. this result agree with Moodley et al. [9] study revealed that majority of the population had no read and write education. Concerning the family history of breast cancer, history of smoking, using contraceptive pills the present result indicated that more than two third of sample (65.3%), (64%), (70.5%) were with no family history of breast cancer, smoking, using contraceptive pills respectively. This result agrees with Nemenqani [10]; Odongo et al. [11] who found the majority of sample with negative family history of breast cancer. Regarding women's answers about questions (Breast self –examination (BSE) is a screening tool for breast cancer done by a woman routinely. Once monthly, Clinical breast examination is recommended among Women under age of 30 years every 3 years, Magnetic resonance image (M R I) is most often used to help with early detection of cancer. In table 2, all of answers were good. Women's knowledge concerning such question was accepted. May be that those women were more familiar with such question after their diagnosis breast cancer. Like our results by Namenqani et al. [10]; Sarwar and Saqib [12]. who stated the majority (89.2%) of the participants knew that BSE is recommended to be done monthly and 84% of the them know that axilla should be examined when doing BSE however less than half

of the study sample (46.8%) was aware about the correct time of BSE have abreast self –examination once a month and the best times are from day five today . On other hand women's responding regarding to question (The best time to perform (BSE) During the first week from the end of period, The breast is palpated by palm of three middle fingers. Woman who have oral contraceptive pills should examine her breasts In the same day of taking pills, breast calcifications can be seen effectively by mammography). Were fail, the interpretation of such result is absence of health education and information about such issue in our society. Such result is supported by Ogunkorode et al. [13]; Chowdhury et al who observed previous preparations of oral contraceptives used in the 1970 s and 80s used greater doses of synthetic estrogens than today's contraceptives. When studies came out decades ago linking synthetic estrogens with breast cancer (3-).In relation to the causes for delay seeking medical help, the study results indicated that most common causes is fear from being diagnosed with breast cancer which prevent women from doing mammogram and clinical breast examination. Also, the financial problems were an important cause for delay seeking medical intervention. These results can be interpreted by many women get scared when they notice any anatomical and/or physiological changes to the breast and therefore delay their visit to the health service. Such as Raimunda Magalhães Silva et al. (2018) who have written about self- perception of a breast change is possibly the first time a woman becomes aware that the body can suffer and that life is threatened. In this sense, denying the disease is another mechanism that influences the adherence to discovery and treatment. The results showed that overall women's knowledge have significant positive correlation ($p < 0.05$) with each of family history of breast cancer and level of education. Our interpretation to such result women's with such characteristic family history and level of education have more experience with issue of early detection. This result agrees with Gioia ; Ismail et al., [7] who found correlation significant positive was between family history of breast cancer and knowledge about breast self-examination and mammogram. Its agrees with Oladimeji et al., Al-alwan et al., [14–16]. They recorded a correlation with study woman s' practice of BSE. Educational level, association with study participants' practice of CBE. Educational level showed that overall women knowledge has significant positive correlation with age and level of education. The interpretation of such result is women in rural residence area was more embarrassment than urban. In regarding to variable of family history, women with family had more experiences regarding breast cancer. The results showed that there is a significant positive correlation ($p < 0.05$) with each

occupational status. This result reflects the role of occupation in promotion of women awareness regarding the importance of clinical breast examination that mean the occupation could be reducing the feeling of embarrassments. Factors of embarrassment disapproval from husbands, fear from being diagnosed by breast cancer factors lead women not having clinical breast examination. This result agrees with Maghous et al. [6] who found a positive relationship between the occupational status and not having clinical breast examination and women demographic data. The limitation of the current study is that small number of subjects has been included in addition to the subjective method in data collection.

4 Conclusion

The study concluded that the general assessment is moderate knowledge about early detection of breast cancer among women and found the significant relationship between family history and residence with knowledge of patient while there is no correlation with other demographic data.

Conflict of Interest: None

Ethical consideration: from ethical committee in the Conflict of Interest: None

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