

Women's Knowledge, Attitude and Practices About Breast Cancer in Gaza Strip, Palestine

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Abstract

Breast cancer is the most frequent cancer among women, impacting 2 million women annually, and also causes the highest number of cancer-related deaths among women. This study aimed to assess knowledge, attitude, and practices regarding breast cancer. A cross-sectional study was conducted at primary health care centers during the period of March and April 2018 among 346 women in the Gaza Strip. A self-administered questionnaire was used to investigate demographic and socio-economic status, knowledge of breast cancer, attitudes towards breast examination and practices of breast self-examination. Statistical analysis was carried out using descriptive SPSS version 24. Study findings have shown that 96% of the respondents heard about BSE, 56.6% had good overall knowledge towards breast cancer, BSE and mammography, 62.3% of participants had positive attitude towards BSE, 28.9% practice BSE in a right manner and correct time, 36.4% checked physically by healthcare providers and 29.5% checked by mammogram. There was a significant difference between age and job towards overall knowledge. And a significant difference between age, job and region toward attitude. Similarly, there was a significant difference between the practice of BSE with checking physically by healthcare providers and checking by the mammogram. Also, differences between checking physically by healthcare providers and checking by the mammogram. The study concluded most females had poor overall knowledge and did not perform BSE regularly but the attitude toward BSE was satisfied. Educational intervention programs should be applied to improve the knowledge of breast cancer and early diagnosis of it.

Keywords

Breast Cancer, Self-examination, Knowledge, Attitude, Practices, Women, Gaza Strip

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1. Introduction

Breast cancer is the second most common cancer overall and the most commonly occurring cancer in women [1]. Over 2 million new cases in 2018 were recorded [1]. Breast cancer has the highest mortality rate in the world [2]. In 2018, it was estimated that 627,000 women died from breast cancer—that is approximately 15% of all cancer deaths among women [3]. While breast cancer rates are higher among women in more

developed countries, rates are increasing in nearly every county worldwide [3].

According to the Palestinian Health Information Center (PHIC) and Ministry of Health (MoH) annual reports at 2018 in Palestine, breast cancer was the most common with 432 reported cases in 2018, representing 27.6% of all cancer cases among females, with incidence rate 33.4 per 100,000 female population [4].

Breast cancer risk factors include advancing age [5], women

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with history or family history of breast cancer [6], women who started menstruation early or went through menopause late, and the use of hormonal replacement therapy (HRT) with combined progesterone and estrogen [7]. Breast cancer in the early periods typically do not produce symptoms but as the tumor enlarges, symptoms produced include; breast pain, painless lump in the breast, lump under the armpit, spontaneous discharge of the nipple particularly if bloody, erosion or inversion in the nipple, and swelling or thickness of the breast's skin, [5].

Breast cancer screening methods include breast self-examination (BSE), clinical breast examination and mammography [8]. Among these tools, mammography is the only tool that has been verified to be effective, but the method is expensive and is cost-effective and feasible in countries with good health infrastructure [9]. For nearly sixty years, BSE has been introduced as an application that assures the lives of women who need early diagnosis of breast cancer and has been included in breast cancer screening guidelines by breast health authorities [10]. It is a fact that BSE is important in the life of women in the early diagnosis of breast cancer due to its being economic, easy and able to be performed easily by women themselves [10].

The American Cancer Society guidelines recommend mammogram annually initially at the age of forty, clinical breast examination (CBE) about every three years for women in their twenties and thirties, and every year for women at age forty and over and also recommend Breast Self-Examination (BSE) for women starting their twenties [11].

Early detection and diagnosis can greatly increase chances for successful treatment and thus increasing awareness of the possible warning signs of the disease among the general public is a necessity [12]. For that effective screening and early diagnosis of Breast Cancer, adequate knowledge and awareness are of utmost importance. Many reports revealed that a significant number of women present with advanced stages of the disease due to lack of information, knowledge and awareness of early detection measures [13].

The present study aimed to assess knowledge, attitude and practice about breast cancer among women attending PHC in the Gaza Strip, Palestine. The results of this study are of great importance as it may assist health professionals in planning health education for women in the Gaza Strip. Also, from this research findings, health screening which includes breast self-examination education and other screening tools could be included as one of the main activities in Ministry of Health, as well it will be an input for the Palestine cancer prevention program.

2. Methods

2.1. Study Design and Setting

This study was conducted as a cross-sectional study among women at primary health care centers in Gaza Strip. The study was designed to investigate the socio-demographic statuses of the participants and their level of knowledge, attitudes on breast cancer and practices of self-breast examination. The study was conducted in the period of March and April 2018.

2.2. Participants

Participants were selected randomly from primary health care centers. The total number of women was 346. Written informed consent was obtained from all the participants prior to data collection. Participants were assured of the confidentiality of their responses.

2.3. Instrument

Each participant was given a self-administered questionnaire. The questionnaire consisted of six sections namely; socio-demographic characteristics (such as age, marital status, occupation, income and number of family members), knowledge about breast cancer (risk factors, protection factors, sources of information), Knowledge about mammography, section to assess knowledge about BSE, section that addresses attitude of participants towards BSE and section that assesses BSE practice so women were asked about steps of BSE. The questions were designed with Yes, No answers except socio-demographic and practice sections.

2.4. Statistical Analysis

All data entry and analysis were performed by the Statistical Package for Social Sciences program (SPSS) version 24. Statistical analysis performed included descriptive analysis, Chi-square test, and independent T-test.

3. Results

3.1. Socio-demographic Characteristics Among Respondents

Socio-demographic characteristics of participants are summarized in Table 1. A total of three hundred forty-six women were included in the study. Majority of participants aged more than 40 years (58.4%) and married (67.6%). About 80.2% of participants were unemployed (not working outside the home) and just 13.6% who have office work. More than half (69.7%) have income less than 200 USD/month and (69.5%) live in the city.

Table 1. Socio-demographic Characteristics.

Personal characteristics		No.	%
Sex	Female	346	100
Age [◊]	< 40 years	126	41.6
	≥ 40 years	178	58.4
Marital status [◊]	Married	234	67.6
	Not Married	112	32.4
Job [◊]	Workers	20	6.2
	Officers	44	13.6
Monthly Income [◊]	Not working	260	80.2
	≥ 500 USD	24	7.3
	200–500 USD	76	23.0
Region [◊]	< 200 USD	230	69.7
	City	232	69.5
	Village	22	6.5
	Camp	80	24.0

◊ The inconsistency of distribution of numbers is due to missing in data collection

3.2. Knowledge on BSE

The majority of participants hearing about BSE (96.0%) as shown in Table 2 but 55% of women have a good knowledge regarding BSE with a mean (SD) 4.49 of (1.18) as shown in Table 3.

3.2.1. Knowledge of Breast Cancer

Regarding knowledge about risk factors of breast cancer, the majority of the participants have good knowledge (61.8%) with a mean (SD) of 10.0 (2.52). And there 83.8% of participants have good knowledge about protection factors of breast cancer with a mean (SD) of 5.17 (0.89) as shown in Table 3. About 52.6% of participants have their information regarding breast cancer from one source and 43.4% from two sources or more. There 49.7% and 42.8% of participants have good knowledge and limited knowledge respectively about signs and symptoms of breast cancer (Table 2).

3.2.2. Knowledge on Mammography

Only 27.2% of the participants in the current study have low knowledge about the diagnoses of breast cancer via radiation and mammogram (Table 3).

3.2.3. Overall Knowledge About BSE, Breast Cancer and Mammography

The present work revealed that 56.6% of the study sample has a good level of knowledge on the clinical presentation of BSE, breast cancer and mammography compared to nearly 43.4% of participants have low knowledge (Table 3).

3.3. Overall Attitude Toward BSE

Our results showed that 62.3% of respondents had a positive attitude toward doing BSE and 37.7% had a negative attitude with a mean (SD) of 3.68 (1.69) (Table 3).

3.4. The Practice of BSE and Mammogram

Only 28.9% of women doing BSE in a right manner and

correct time and there only 36.4% of women were checked physically by healthcare providers. Also, there 29.5% of the participants were checked by mammogram (Table 3).

Table 2. Information regarding breast cancer and BSE.

Information		No.	%
Hearing about BSE	Yes	332	96.0
	No	14	4.0
Number of the sources of information	No source	14	4.0
	One	182	52.6
	Two or more	150	43.4
Understanding of signs and symptoms	No knowledge	26	7.5
	Limited knowledge	148	42.8
	Good knowledge	172	49.7

Table 3. Level of Knowledge, Attitude and Practice.

Domain Title	Domain Description	Domain Score			
		No.	%	Mean	SD
I. Knowledge					
Knowledge of BSE	Low knowledge	154	44.5	4.49	1.18
	Good knowledge	192	55.5		
Knowledge of risk factors	Low knowledge	132	38.2	10.0	2.52
	Good knowledge	214	61.8		
Knowledge of diagnosis via radiation and mammogram	Low knowledge	94	27.2	2.93	0.78
	Good knowledge	252	72.8		
Knowledge of protection factors	Low knowledge	56	16.2	5.17	0.89
	Good knowledge	290	83.8		
Overall knowledge	Low knowledge	150	43.4	22.60	3.81
	Good knowledge	196	56.6		
II. Attitude					
Overall Attitude toward doing BSE ◊	Positive attitude	208	62.3	3.68	1.69
	Negative attitude	126	37.7		
III. Practice					
Doing BSE in a good manner and correct time.	Good	100	28.9		
	Bad	246	71.1		
Checking physically by healthcare providers	Yes	126	36.4		
	No	220	63.6		
Checking by the mammogram	Yes	102	29.5		
	No	244	70.5		

◊ The inconsistency of distribution of numbers is due to missing in data collection

3.5. Relationship Between Overall Knowledge and Socio-demographic Characteristics

Women aged more than 40 years have knowledge about BSE, breast cancer and mammography more than women aged less than 40 years (P-value = <0.001). Also, women who have office work more than workers and unemployed women (P-value = 0.032). There are differences between marital status and knowledge in favor of married women but did not reach statistical significant (P-value = 0.088). However, no association was found between overall knowledge with monthly income and region (Table 4).

Table 4. Total Score of knowledge and socio-demographic characteristics.

Factor	Categorization	No.	Score Mean ± SD	Test value	P value
Age	< 40 years	126	21.30 ± 4.10	4.218	<0.001*
	≥ 40 years	178	23.19 ± 3.65		
Marital status	Married	234	22.35 ± 3.69	1.710	0.088
	Not Married	112	23.10 ± 4.03		
Job	Workers	20	20.30 ± 2.34	3.490	0.032*
	Officers	44	22.72 ± 3.94		
	Not working	260	22.56 ± 3.83		
Monthly Income	≥ 500 USD	24	22.33 ± 4.17	0.120	0.887
	200–500 USD	76	22.76 ± 4.34		
	< 200 USD	230	22.64 ± 3.49		
Region	City	232	22.56 ± 3.74	0.662	0.517
	Village	22	22.72 ± 2.47		
	Camp	80	22.02 ± 4.15		

* Difference is significant at the 0.05 level (2-tailed)

Table 5. Total Score of Attitude and socio-demographic characteristics.

Factor	Categorization	No.	Score Mean ± SD	Test value	P value
Age	< 40 years	126	3.46 ± 1.38	2.966	0.003*
	≥ 40 years	178	4.01 ± 1.64		
Marital status	Married	234	3.65 ± 1.67	0.584	0.559
	Not Married	112	3.76 ± 1.73		
Job	Workers	20	2.70 ± 0.92	3.436	0.033*
	Officers	44	3.77 ± 1.69		
	Not working	260	3.74 ± 1.78		
Monthly Income	≥ 500 USD	24	4.16 ± 1.37	1.538	0.216
	200–500 USD	76	3.89 ± 1.69		
	< 200 USD	230	3.63 ± 1.66		
Region	City	232	3.73 ± 1.61	4.250	0.015*
	Village	22	2.60 ± 1.78		
	Camp	80	3.64 ± 1.80		

* Difference is significant at the 0.05 level (2-tailed)

3.6. Relationship Between Overall Attitude and Socio-demographic Characteristics

Regarding the relationship between the overall attitude toward BSE and Age, there statistically significant differences in favor of women aged more than 40 years (P-value = 0.003). Moreover, there differences between attitude and nature of the job in favor of women who have office work (P-value = 0.033). Women who live in the city have a positive attitude toward BSE more than women who live in the village or camp (P-value = 0.015). Furthermore, no statistical differences were found

between attitude with marital status and monthly income (Table 5).

3.7. Relationships Between Practices

Among women who doing BSE in a good manner and correct time, about 43.9% were checked physically by healthcare providers with p-value < 0.001 and 35.8% were checked by mammogram with p-value < 0.001. Among all participants, there 81.0% of women were checked by healthcare providers and mammogram with p-value <0.001 (Table 6).

Table 6. Practice cross-relationships.

		Checking physically by healthcare providers		Test value	P value
		Yes	No		
Doings in a good manner and correct time	Good	108 (43.9%)	138 (56.1%)	20.60	<0.001*
	Bad	18 (18.0%)	82 (82.0%)		
		Checking by the mammogram		Test value	P value
		Yes	NO		
Doing BSE in a good manner and correct time	Good	88 (35.8%)	158 (64.2%)	16.21	<0.001*
	Bad	14 (14.0%)	86 (86.0%)		

		Checking by the mammogram			
		Yes	No		
Checking physically by healthcare providers	Yes	102 (81.0%)	24 (19.0%)	252.5	<0.001*
	No	--	220 (100%)		

* Difference is significant at the 0.05 level (2-tailed)

4. Discussion

As the incidence of breast cancer increases worldwide, understanding women's knowledge of, attitude toward, and practices engaged in regarding breast cancer screening is essential, because screening is the first step toward early detection [14]. The results of the current study revealed that majority of respondents (96.0%) from Gaza strip have heard about breast cancer and BSE, which is higher than the study in Palestinian from west bank [15]. Also, higher than the study in Pakistan [16], Lebanon [14] and the rural district of central India [17]. This mean, there a good educational program for raising awareness about breast cancer in Gaza strip.

Regarding knowledge of risk factors of breast cancer almost sixty-one percent of women had good knowledge and for participant's understanding of signs and symptoms of BC was not satisfactory but these results were in agreement with the study reported by Sama et al. in Cameron [18] and study among Turkish female [19]. This study showed that 56.6% of the respondents had good overall knowledge (knowledge of breast cancer, BSE and mammography). Though it is not large, this percentage is higher than the study in Saudi Arabia which only 8% of participants had overall knowledge [6] and higher than the study in the Students of Arab American University/Jenin which overall knowledge was 15.5% [20]. The most women in Gaza strip depend on their information about breast cancer just in one source.

Our respondents had a positive attitude toward BSE (62.3%) but this lower than the study in Jenin [20] and the study in Ethiopia [21]. It was found that only 28.9% of the participants perform BSE in a good manner and correct time and that 44.5% mentioned lack of knowledge about the technique of BSE as a barrier for not practicing it (Lack of knowledge on how, when and position to perform BSE was cited as the main reason for not practicing BSE). This result is higher than the 12.06% obtained among female teachers in Ethiopia who perform BSE [22] and extremely equal 25.5% who practice BSE among Malaysian female [23].

A majority of the participants had never checked by radiation of mammogram (70.5%) and physically by healthcare providers (63.6%) to the diagnosis of breast cancer and this is consistent with study in Thailand [24] and study in Turkey [25] which a very few women regularly perform diagnosis of the breast.

A highly statistically significant difference was found between overall knowledge and age and attitude toward BSE and age. Older women (more than 40 years) have score of overall knowledge and attitude toward BSE (23.19 ± 3.65) and (4.01 ± 1.64), respectively more than younger women (less than 40 years) (21.30 ± 4.10) and (3.46 ± 1.38), respectively and this concordant with study in Iran [26].

Also, there a difference between overall knowledge and job and attitude toward BSE and job. Office work women have the highest score in knowledge and attitude and this agreed with study in the rural district of central India [17]. That may be attributed to educational programs, stories and experiences which were exposed by older women or office work women.

There is no association between knowledge and marital status or attitude toward BSE and marital status which consistent with a study in Jordan [27] and not concordant with study in Iran [26] and no association between knowledge and income which disagreed with studies in India [17] and [28].

However, there a relationship between attitude toward BSE and region. People who live in the city have a positive attitude toward BSE more than people who live in the camp or village. The role of region in the attitude toward BSE is controversial, while some study found a negative association between region and attitude which people at rural had positive attitude more than people in urban [29], others reported a positive relationship [30]. In another, no differences were observed in region and attitude toward BSE [17].

In the present study, their differences between women who doing BSE in a good manner and correct time with women who checked physically by healthcare providers and women who checked by the mammogram. Just 43.9% of participants care about the diagnosis of breast cancer by themselves and healthcare providers. Also, 38.5% of respondents interest in diagnosis by themselves and mammogram.

However, there is an association between checking breast by mammogram and physically by healthcare providers. Only 19.0% of women have never checked the breast.

Findings of this study should be interpreted with the following limitations. The study was cross-sectional, so causal conclusions cannot be drawn. Over and/or under-estimation for some self-reported events by the study participants could have also occurred although we used a validated and standardized questionnaire. Also, a few women

did not answer some questions that lead to inconsistency of the distribution of numbers.

5. Conclusion

In conclusion, although some percents are higher than the other countries, it still under expected and under required. Positive attitude toward BSE was encouraging but overall knowledge and practice of BSE or mammogram were not satisfactory that might be an obstacle to screening program and early diagnosis of breast cancer but. Because of this, we recommend educational intervention programs that could enhance the knowledge of the women about BSE and increase their practice in this regard. Also, more utilization of Media as an important source of information on breast cancer is important to improve awareness and attention about early diagnosis of breast cancer among the community.

Ethical Consideration

Participation was voluntary. Questionnaire is anonymous, and data were kept confidential. Informed Consent was taken from the participants before filling the questionnaire.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

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