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Barriers of Breast Cancer Screening and Early Detection among Iraqi Women in Dhi-Qar City

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Abstract:

Introduction: Breast Cancer patients in Iraq are often presented younger than those in high-income countries and diagnosed in advanced stages that led to a higher mortality rate. It is due to absence of screening program.

Objectives:

Publication on the urgent need of Iraq for breast cancer screening is scarce. Therefore this study was carried out among Iraqi women in southern Iraq.

Methods:

A total of 307 women were selected from (hospitals and PHCCs) in different areas in Dhi-Qar (Al-Gharraf, Al-Dawwaya ,Al-Shattrah and Al-Nassyria) at time of visit. An interview was carried out to fill the questionnaire, knowledge was scored as poor(0-2), fair(3-5) and good(6-8); score was used[12],[13]. Variables were expressed by frequency and percentage.

Results:

the age of the participants was 31.44±8.34. age at menarche was 13.08 ± 1.47, the age of marriage for married women was 23.75 ± 4.03. (Table 3) show distributed barriers of consulting early detection center of cancer which were related in person himself, like lack of awareness on visit the doctor only when the sign and symptoms appear (82.73%), there is no benefit from early detection of breast cancer (3.25%), lack of knowledge of location of clinics for early detection of cancer. (59.61%), Lack of knowledge of the priority of the visit when an early examination is desired or symptoms appear; is to Radiologist (14.33%), or General surgeon (5.86%), or Specialized in screening and early detection of cancer (37.79%), or Obstetrics & Gynecology specialist (37.45%), laboratory specialist (4.56%). Other barriers related with socioeconomic conditions shown in (table 4) participants answered with yes when we asked them is the cost of examination high? Were (14.65%), is the cost of going to health institution is high? (17.26%), There is no financial possibility to commit to

multiple visits to the cancer early detection center: (33.87%). And in sociocultural barriers Shamed of the examination: was (28.01%), and the effect of advising some women not to go for the examination: was (6.19%).. Good knowledge about risk factors that increase probability of breast cancer was evident among the participants, (55.4%) have score of knowledge (6-8).

Conclusion:

We concluded that there were many different barriers to screening and early detection of breast cancer, some of them individual specific barriers, and others correlated with socioeconomics conditions so as to there were barriers include health organization services.

Key words: *Breast cancer, Barriers, Screening., Early detection, Cancer.*

Introduction:

Breast Cancer accounts for 24.2% of all female cancer cases in the world [1]. It was expected to cross 2 million by 2030 [2]. Breast Cancer is the most common cause of cancer-related mortality among the female population [3]. In Iraq and other developing countries breast cancer cases tend to be diagnosed at advanced stages and among younger age groups [4]. Late diagnosis is it mainly due to lack of awareness, and limited health resources, along with the patient's fear of this disease itself [5]. private health institutions functions as early detection dealing with symptomatic (mass, discharge, pain [6].the reported breast cancer-related mortality rate in Iraq is still among the highest worldwide, suggesting the presence of obstacles limiting the participation of Iraqi women in the breast screening program [7], [8]. The major barriers facing the health sector, especially with regard to cancer research and early detection, is the awareness towards cancer, especially breast cancer among Iraqi women, as well as the economic reality and the educational level had a great impact on the results of early detection of cancer [9]. These barriers are multifaceted and complex, namely knowledge, attitudes, beliefs and practices, health system and policy restrictions; and structural barriers. One of the most common reasons for not undergoing screening is 'don't know', economic constrains , don't know the place where to do, feel shy, distance, not permitted, fear for diagnosis, no time, and no one to accompany [10]. Low screening is attributed to low public awareness as well as numerous social, psychological, and geographical barriers for screening [11].

Aim of the study: Publication on the urgent need of Iraq for breast cancer screening is scarce. Therefore this study was carried out among Iraqi women in southern Iraq.

Material &Methods: A total of 307 women were selected from (hospitals and PHCCs) in different areas in Dhi-Qar (Al-Gharraf, Al-Dawwaya ,Al-Shattrah and Al-Nassyria) at time of visit. An interview was carried out to fill the questionnaire, knowledge was scored as poor(0-2), fair(3-5) and good(6-8); score was used[12],[13].Variables were expressed by frequency and percentage.

Results:

the age of the participants was 31.44±8.34, age at menarche was 13.08 ± 1.47 and the age of marriage was 225 (23.75 ± 4.03). (Table1).

Table (1) Demographic Characteristics Of Participants

Demographic Characteristics	N	Means ± SD
Age (Year)	307	31.44±8.34
Age At Menarche (Year)	307	13.08±1.47
Age At Marriage (Year)	225	23.75±4.03

(Table 2) also showed the other demographic information of the participants, which was statistically analyzed by frequency and percentage, represented by marital status, which was divided into single 82 (26.71 %). Married 216 (70.35 %) Widow 6 (1.95 %) and divorced 3 (0.98%). And the level of education of the participants, and they were between illiterate 9 (2.93%), can read and write 8 (2.60%), primary school 17 (5.53%), secondary school 20 (6.51%), institute 42 (13.68%), under graduate and above 211 (68.72%). Occupational status of each participant, a housewife 45 (14.65%), a student 20 (6.51%), an employee 238 (77.52%), and retired 4 (1.30%). Also, information about the place of residence, whether it is urban 286 (93.16%), rural 21 (6.84%), number of pregnancies (1-12 times) 209 (68.07%), number of children (1-12 child) 200 (65.14%), number of miscarriages (1- 4 times) 84 (27.36%), type of contraceptive that participants use, Don't use 152 (49.11%), Occp 43 (14.00) Injection 5 (1.62%) Iud 8 (2.60%) others 99 (32.24%), as shown in the table.

Table (2) Demographic Characteristic Of Participants N = 307

Area	Characteristics	N	(%)
Marital Status:	**Single**	**82**	**(26.71)**
	Married	**216**	**(70.35)**
	Widow	**6**	**(1.95)**
	Divorced	**3**	**(0.98)**
Level Of **Education**:	**Illiterate**	**9**	**(2.93)**
	Can Read & Write	**8**	**(2.60)**
	Primary School	**17**	**(5.53)**
	Secondary School	**20**	**(6.51)**
	Institute	**42**	**(13.68)**
	Under Graduate & Above	**211**	**(68.72)**
Occupation:	**Housewife**	**45**	**(14.65)**
	Student	**20**	**(6.51)**
	Employee	**238**	**(77.52)**
	Retired	**4**	**(1.30)**
Residency:	**Urban**	**286**	**(93.16)**
	Rural	**21**	**(6.84)**
Parity	**Zero**	**98**	**(31.92)**
	1-12	**209**	**(68.07)**
Number Of Children	**Zero**	**107**	**(34.85)**
	1-12	**200**	**(65.14)**

Number Of Miscarriages	**Zero** **1- 4**	**223** **84**	**(72.63)** **(27.36)**
Type Of Contraceptive	**Don't Use** **Occp** **Injection** **Iud** **Others**	**152** **43** **5** **8** **99**	**(49.51)** **(14.00)** **(1.62)** **(2.60)** **(32.24)**

Occp = Oral Contraceptive Pills, **Iud**= Intrauterine Device

(Table 3), the results present measuring the level of knowledge and awareness among the participants of the factors that increase the probability of developing breast cancer, which is a set of questions for the participants from the questionnaire, and they revolve around the effect of some factors, so that the answer is yes or no, and here we mentioned only those who answered yes, obesity 132 (42.99%) answered yes, 78 (25.40%) answered yes with regard to the effect of menstruation at an early age, 99 (32.24%) delayed menopause, 176 (57.32%) if the age ≥ 35 years, 90 (29.31%) if it is the first child after the age of 30 years, 162 (52.76%) the effect of using hormonal therapy, 145 (47.23%) smoking effect, 179 (58.30%) if the patient had a history of breast cancer in the family. The mean knowledge score of participants (± SD) was 2.15 (±0.508). Approximately 55.4% of the sampled women were classified as having good scores, 43.3% having poor scores, 4.8% having fair scores knowledge of breast cancer risk, as shown in table 3.

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Table (3) Distribution Of Level Of Knowledge Of Participants About Risk Factors, That Increased Probability

Of Breast Cancer (N=307)

Details		N	(%)
If Obesity Effected?	Yes	132	(42.99
	No	175	(57.00)
Early Onset Of Menstruation	Yes	78	(25.40)
	No	229	(74.59)
Late Menopause	Yes	99	(32.24)
	No	208	(67.75)
If The Age ≥35 Years	Yes	176	(57.32)
No		131	(42.67)
If The First Child After The Age Of 30 Years	Yes	90	(29.31)
	No	217	(70.68)
Hormonal Therapy After Menopause	Yes	162	(52.76)
	No	145	(47.23)
Habits: (Smoking):	Yes	145	(47.23)
	No	162	(52.76)
Family History Of Breast Cancer:	Yes	179	(58.30)

	No	128	(41.69)
Level Of Knowledge According To Total Score	Poor (0-2)	133	(43.3%)
	Fair (3-5)	15	(4.8%)
	Good (6-8)	170	(55.4%)
Mean Total Knowledge Score (SD)		2.15 (0.508)	
Occp= Oral Contraceptive Pills, SD= Standard Deviation			

Table (4) showed distribution of level of knowledge among participants that concern barriers for early detection of breast cancer in 307 participants which were related in person himself, like lack of awareness in lot of things taken who said yes, (visit the doctor only when the disease or symptoms appear 254 (82.73%), there is no benefit from screening and early detection of breast cancer. 10 (3.25%), lack of knowledge of location of clinics for screening and early detection of cancer. 183 (59.61%), Lack of knowledge of the priority of the visit when an early examination is desired or symptoms appear; is to Radiologist 44 (14.33%), or General surgeon 18 (5.86%), or Specialized in screening and early detection of cancer 116 (37.79%), or Obstetrics & Gynecology specialist 115 (37.45%), laboratory specialist 14 (4.56%). Some of barriers related with responsibilities upon participants, like the family does not agree to go for the examination 25 (7.49%) Can't leave workplace and go for the examination 139 (45.27%). Also Disease apprehension barriers; as, fear of being diagnosed with cancer 159 (51.79%), fear of pain during the examination: 84 (27.36%), fear of exposure to radiation: 147 (47.88%), and other barriers correlated with health care institution services, which were If there is females staff for the examination: 272 (88.60%), If there is concern for patient's privacy: 236 (76.87%), If the place of examination is appropriate: 206 (60.10%), If services are available in one place in institution: 112 (36.48%), Long time waiting for examination: 144 (46.90%), If health staff are not cooperative: 62 (20.19%). And as see in table 4 that a high number in lack of awareness barriers who they said yes about paragraph (Visit the doctor only when the disease or symptoms appear.) were 254 (82.73%), 115 (37.45%) a high number in Lack of knowledge of the priority of the visit when an early examination is desired or symptoms appear, who said yes for the paragraph (Specialized in obstetrics and gynecology), 139 (45.27%) a high number in responsibility barriers who said yes for the paragraph (Can't leave workplace and go for the examination.) in Disease apprehension barriers 159 (51.79%) who said yes for the paragraph (Fear of being diagnosed with cancer), and 272 (88.60%) a high number in Organization and health services barriers who said yes for paragraph (If there is females staff for the examination).

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Table (4) Number And Percentage Distribution Of Individual Specific Factors Among Participants That Concern Barriers For Early Detection Of Breast Cancer (N=307)

Barriers	N	(%)
Lack Of Awareness:		
Visit The Doctor Only When The Disease Or Symptoms Appear.	**254**	**(82.73)**
There Is No Benefit From Early Detection Of Breast Cancer.		
Lack Of Knowledge Of Location Of Clinics For Early Detection Of Cancer.	**10**	**(3.25)**
Lack Of Knowledge Of The Priority Of The Visit When An Early Examination Is Desired Or Symptoms Appear:	**183**	**(59.61)**
Radiologist:		
General Surgeon:		
Specialized In Screening And Early Detection Of Cancer:		**(14.33)**
Obstetrics & Gynecology Specialist:	**44**	**(5.86)**
Laboratory Specialist:	**18**	**(37.79)**
	116	**(37.45)**
	115	**(4.56)**
	14	
Responsibility Barriers:		
Family Resistance:	**25**	**(7.49)**
Can't Leave Workplace :	**139**	**(45.27)**

Disease Apprehension Barriers:		
Fear Of Being Diagnosed With Cancer:	**159**	**(51.79)**
Fear Of Pain During The Examination:	**84**	**(27.36)**
Fear Of Exposure To Radiation:	**147**	**(47.88)**
Organization And Health		
Services Barriers:		
If There Is Females Staff For The Examination:	**272**	**(88.60)**
If There Is Concern For Patient's Privacy:	**236**	**(76.87)**
If The Place Of Examination Is Appropriate:	**206**	**(60.10)**
If Services Are Available In One Place In Institution:	**112**	**(36.48)**
Long Time Waiting For Examination:		
If Health Staff Are Not Cooperative:	**144**	**(46.90)**
	62	**(20.19)**

Other barriers related with socioeconomic conditions shown in table 4 participants answered with yes when we asked them is the cost of examination high? Were 45 (14.65%), is the cost of going to health institution is high? 53 (17.26%), There is no financial possibility to commit to multiple visits to the cancer early detection center: 104 (33.87%). And in sociocultural barriers Shamed of the examination: was 86 (28.01%), and the effect of advising some women not to go for the examination: was 19 (6.19%).

Table 5: Number And Percentage Distribution Of Socioeconomic Barriers For Early Detection Of Breast Cancer (*N*=307)

Barriers	(Yes) N	(%)
Economic Barriers:		
The Cost Of Examination Is High:	**45**	**(14.65)**
The Cost Of Going To Health Institution Is High:	**53**	**(17.26)**
There Is No Financial Possibility To Commit To Multiple Visits To The Cancer Early Detection Center:	**104**	**(33.87)**
Sociocultural Barriers:		
Shamed Of The Examination:	**86**	**(28.01)**
The Effect Of Advising Some Women Not To Go For The Examination:	**19**	**(6.19)**

Discussion:

Early detection both by screening and early clinical diagnosis is an important intervention to control cancer in low and medium income population. The main objective of it is to detect cancer cases early enough to provide less toxic and less expensive curative treatment. Some or most of the cancer patients want medical advice when disease is fairly advanced. Regular mammogram screening has been utilized to detect breast cancer at early stage and has been shown to be effective in reducing breast cancer deaths. Breast cancer patients in Iraq tend to be diagnosed at advanced stages and among younger age groups compared to their counterparts in high-income countries, which has led to a higher Breast Cancer related mortality rate in Iraq [3], [4]. The success and effectiveness of an organized cancer screening program is largely dependent on obtaining high participation rates through effective recruitment and retention strategy [12]. 307 women participated in this study, their ages were 17-70 years. (Table 2) shows the demographic data of the participants with regard to their marital status. The percentage of married women was approximately 70%, which is the majority of divorced, widowed, and single women. The percentage of those with a higher education level was 68%. It is more than the rest of the other levels of academic achievement among the participants. Despite all of this, a large percentage of the participants, even with this distinction, have the same

barriers as women with less education and with lower incomes, and this is not consistent with most of the studies conducted in various countries of the world, such as what Neha et al said "All were aware about cancer, but only 8.54% knew exactly what cancer means, that is, uncontrolled growth of cell. More than two-third of women had belief that there is no cure for cancer. This indicates that in general women knew the 'name' 'cancer' and had fear about it, [13]. As the other characteristics of the data the demographics in our study, such as the place of residence between the countryside and urban areas, were all employed. The percentage of female employees was higher than the other categories, 77%, and the percentage of female participants who lived in the city was 93%, while the assumption of most studies is that those who have a higher level of education and their financial income is very good from the job and live in urban areas, they are more knowledgeable and caring about the rocky side than those who live in the countryside and have no job or monthly income. In table 3 which is indicating for level of knowledge at participants in effect of risk factors in increase probability of infected with caner, we find that (42%) of participants said yes we know that these risk factors increased probability of arise of cancer [14]. In this study, even though the percentage of those who know that risk factors have an impact on the possibility of breast cancer was more than half of the research participants, almost half of them were poor in knowledge of the effect of risk factors, according to the score of level of knowledge in table 3, poor knowledge 133 (43.3%) of the current group of women regarding the risk of Breast Cancer was one of the underlying reasons for not seeking cancer screening service. Past studies have reported the lack of knowledge of breast cancer as the factor that inhibited mammographic screening. [15], [16], [17]. We note in Table 4 and Table 5 that the most important contraindications that affect the lack of early detection of cancer were listed, as 82% of the participants know about a priority for any patient to visit the doctor except when symptoms or disease appeared [18], and 59% of them know that lack of awareness at people for location of clinics for early detection of cancer, and it concern that this is barrier, this is consistent with what Sharma et al said; Women cited the lack of awareness about breast cancer as one of the barriers. This finding can be described by the low literacy rate and poverty of women [19], [10], [20].The dearth of knowledge about the ill health delays in consulting the doctor, and sometimes family and relatives give altered meaning to the presenting signs and symptoms. So as to this study indicated that there is a lack of knowledge of the priority of the visit when an early examination is desired or symptoms appear; is to Radiologist, General surgeon, specialized in screening and early detection of cancer, Obstetrics & Gynecology specialist, and laboratory specialist? as shown in table 4. In addition, the fear of cancer or its detection and treatment was one of the foremost sociocultural obstacles in early diagnosis. [21], [22]. Also we find in this study that even almost them were employees, higher education level, and health organization services are good but there were many participants other than those who have barriers related with economics status, sociocultural status fear from disease as shown in table 5 these are preventive factors of early detection of cancer at all. Among the most prevalent barriers among the participants were those related to awareness, the highest of which was 254 (82.73%) in the item (Visit the doctor only when the disease or symptoms appear) and 182 (59.61%) in the item (Lack of knowledge of location of clinics for early detection of cancer.) and 115 (37.45%) in the paragraph (Lack of knowledge of the priority of the visit when an early examination is desired or symptoms appear: obstetrics and gynecology) It is clear from this that the low level of awareness and knowledge among the participants is considered the biggest obstacle and one of the most important barriers that impede screening for early detection of breast cancer, as found in other studies [19], [10], [20].

Conclusion and Recommendations:

We concluded that there were many different barriers to screening and early detection of breast cancer, some of them individual specific barriers, and others correlated with socioeconomics conditions so as to there were barriers include health organization services. As such we recommend increasing women's awareness and knowledge of the medical and health importance of early detection of cancer through radio, television, street advertisements, and social media.

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