Quality of life in female with breast cancer

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ABSTRACT:
Background: The immediate effect of breast cancer and its treatment on the patient's psychological status and later adaptation of the patient with diagnosis and treatment of the disease may be led to disturbances in the quality of life of the patients. **Objective**: To measure Quality of life (QOL) in females with breast cancer, to find the factors that can improve their QOL and to identify the sociodemographic and clinical factors that have an influence on the QOL. **Methods:** The study sample was a convenient non-random sample of 103 patients diagnosed to have breast cancer at least one month after diagnosis. The data were collected by face-to-face interviews which took about 15-20 minutes with each patient, to fill out a standard questionnaire prepared for this purpose. **Results**: The individual patient QOL score has been 0-400, divided (0-80) was very poor, (81-160) was poor, (16l-240) acceptable, (241-320) good, and (321-400) very good. The percentage of clinical presentations were breast lump, mastalgia, lymph node enlargement, non-specific complain, nipple retraction & discharge were (77%, 42%, 32%, 29%, 22%, I5%) respectively. Statistical analysis shows that there is a direct relationship between marital state &social domain where married appear to have good QOL regarding social domain also homeowner had association with social domain where p value: 0.014 which is significant. Conclusion. The environmental domain of QOL was found to have a significant association with age, menarche, crowding index, living in urban, home ownership & car ownership.

Key words: breast cancer, quality of life, psychological domain, environmental domain

INTRODUCTION:

Breast cancer is the most common cause of health disturbance and death for women especially in mid-aged females which reported in western countries. This cancer is a rare disease under 35 years old, but its incidence doubles every 5years until the age of 50 when it affects 1 in 400 women per year [1]. This a highly prevalent tumors in women is treated with a survival rate for all ages about 88%, but the study of the life of patients after treatment was abounds. But the efforts for study the factors they may improve the quality life of patients suffering of squally of breast cancer after treatment can enhance these factors will be developed [2]. The immediate effect of breast cancer and its treatment on the patient's psychological status and later adaptation of the patient with diagnosis and treatment of the disease, this may be led to disturbances in the quality of the life of the patients, studies show the disruption of the life

quality is more in the young patient more than for the old women especially in the first year from diagnosis of the breast cancer [3] The patients with breast cancer life face multidimensional effects which include physical ability, emotional & familial wellbeing, sexual & social relationships. All these needs attention and need multidimensional therapeutic protocols.[4]. Carcinoma of the breast is the commonest form of carcinoma in females. The exact causes of the disease are not discovered yet. Although many factors increase the incidence of breast cancer [5]. The WHO's have been started to develop measures for assess the quality-of-life for several reasons, these were broadened beyond the traditional care which mortality and morbidity that related the daily life of the patients which may affect the all activities of the patients. [6] These measures whilst beginning to provide a measure of the impact of disease

do not assess the quality of life per se, which has been aptly described as "the missing measurement in health "[7].

AIM OF STUDY:

To measure Quality of life (QOL) in females with breast cancer, to find the factors that can improve their QOL and to identify the sociodemographic and clinical factors that have an influence on the QOL.

PATEINTS AND METHODS:

Across sectional study of quality of life for female patients with breast cancer. Starting on 16th Feb. 2022 to 10th Jan. 2023. The study was carried out at the oncology outpatient clinic at Baghdad Teaching Hospital. Data was collected through 3 visits per week. The study sample was a convenient non-random sample of 103 patients diagnosed to have breast cancer at least one month after diagnosis.

Ethical aspects:

This study was approved by the local ethics committee and by the Iraqi, MOH, the council of the Arab Board of Medical Specialties and Baghdad Oncology. Outpatient clinic, the purpose and procedures of the study were explained to all participants, and they were given the right to participate or not, verbal consent was taken with reassurance that the information gained will be kept confidential and not be used for other than the research objectives. The data were collected by face-to-face interviews which took about 15-20 minutes with each patient, to fill out a standard questionnaire prepared for this purpose. The Socio-demographic information sheet is composed of 11 items including Age, menarche, marital state, education level, occupation, number of family members, number of rooms in the house "crowding index (which is defined as the number of persons over the number of bedrooms)" [8], house ownership, car ownership. Monthly income. Residency. The clinical picture and family history concerning the study sample composed of 9 items, which include signs and symptoms, duration of the disease in months, family history of the same disease, smoking and duration of the disease in months, past medical history, psychological history, hormonal history, pregnancy number, and breastfeeding history.

In the present study the Arabic version of WHO QOL-BREF which is derived from the original WHO QOL 100 was applied

The questionnaire consists of 26 items and included 4 domains:

1- Physical domain
2- Psychological domain

3- Social domain
4- Environmental domain

Each domain contains a specific facet and there are specific questions concerning the nature of each facet as drawn in Figure (l)

There are also two items examined separately:

Question 1 asks about individuals' overall perception of the quality of life and question 2 asks about the individual's overall perception of their health.

Inclusion Criteria:

I -Females diagnosed with breast cancer while treated or not.
2-At least one month after diagnosis to many years.
3-Age of the patients between 25 -75 years old.

Exclusion criteria:

1- Newly diagnosed females with breast cancer in less than one-month duration after diagnosis.
2- Age less than 25 or more than 75 years.

Scoring the WHO-BREF and statistical analysis:

Each of the 24 facets comprises 1 item scored on the 5-point scale, the possible score for a facet is 1-5, and higher scores indicate better quality of life. The four domain scores denote an individual's perception of quality of life.

In Each domain:

Domain scores are scaled in a positive direction (i.e., Higher scores denote a higher quality of life).

A method for the manual calculation of individual scores is given on page 1 of

The WHOQOL-BREF assessment form, and as follows:

- Physical domain: (6-Q3) +(6-Q4) + ql0+Q15+Q1 6+Q17+Q18
- Psychological domain: Q5+Q6+Q7+Q11+Q19+(6-Q26)
- Social relationships: Q20+q2l+Q22
- Environment: Q8+Q9+Q I 2+q 1 3+Q1 4+Q23+Q'24+Q25

The raw scores are then converted to transformed scores. The first transformation method converts scores to range between 4-20, comparable with the WHOQOL-100 and this is by multiplying the mean of the domain by 4, e.g.:

Physical domain: (((6-Q3) + (6-Q4) + Q10 +Q15+Q16+Ql7+Q18)17)*4

The second transformation method converts domain scores to a 0-100 scale. Raw domain scores need to be transformed to a 0-100 scale, for ease of comparison

with other data sets. This transformation converts the lowest possible score to zero and the highest possible score to 100. Scores between these values represent the percentage of the total possible score achieved.

Raw scores are transformed using the following formula:

(Actual raw domain score - Lowest possible raw domain score)

Transformed scale = ---
--- x 100 Possible Raw domain score range

(The method of WHO for converting raw scores to transformed scores is shown in Appendix II).

The individual patient QOL score has been 0-400, divided (0-80) was very poor, (81-160) was poor, (16l-240) acceptable, (241-320) good, and (321-400) very good.

Statistical analysis is done by using descriptive analysis (mean, standard deviation & range), chi-square test for absolute numbers (discrete variable in one sample is compared with another discrete variable in another sample) & using linear correlation coefficient for paired data gives us a precise and objective analysis in the relation between the two variables.
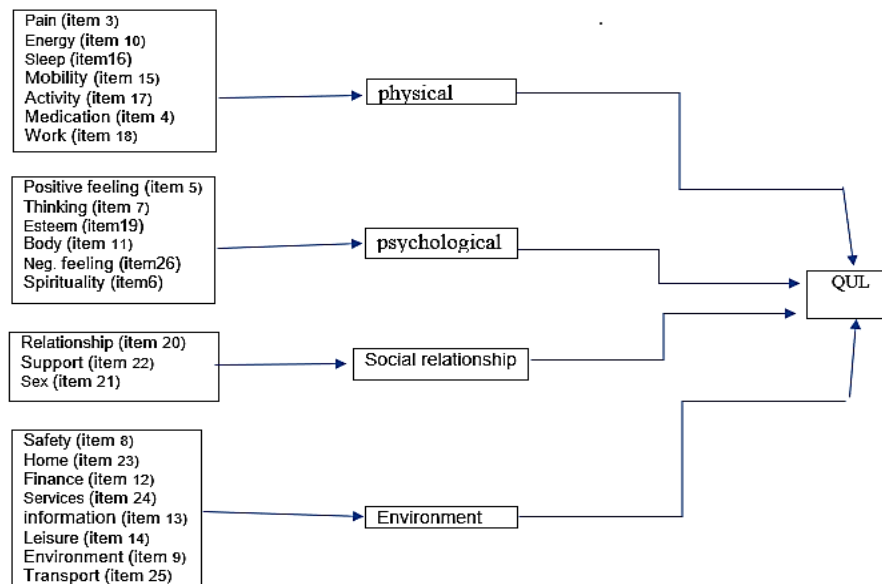

Figure 1: Four domain confirmatory factor analysis for the WHOQOL-BREF

RESULTS:

Table 1 presents the distribution of the study sample according to the variables (age, menarche, number of family members, number of rooms in House. Crowding index, period of the disease, number of pregnancies, physical Domain. Psychological domain, social domain &environmental domain) the result shows that the minimum age at diagnosis was 26 and the maximum was 71 with a mean of 47.89:48 with the mean age at menarche being 13.02=13 years. The number of family members the minimum was 2 and the maximum was 25, number of The room in-house minimum was 1 and the maximum was 8, crowding index of 0.5 as Minimum &5

as maximum with mean 1.87, period after diagnosis 1 month as Minimum &. l92 as maximum with a mean equal to 20.83, number of pregnancies 0 As minimum &14 as maximum.

Regarding the domains of QOL, in the physical domain, the minimum score was 13 from 100 & the maximum was 81, the psychological domain minimum score was 31 maximums of 100, the social domain was 19 minimum, 100 was the maximum & lastly, environmental domain l3 was minimum&100 was maximum.

Table 1 Mean, range & standard deviation of, studied variables.

	Minimum	Maximum	Mean	SD
Age (years)	26	71	47.89	10.1
Menarche (years)	11	16	13.02	1.1
Family size	2	25	6.33	3.8
No. of room in the house	1	8	3.82	1.6
After the diagnosis (months)	1	129	20.83	31
No. of pregnancy	0	14	4.18	3.1
Physical domain score	13	81	46.96	15.7
Psychological domain score	31	100	60.3	16.7
Social domain score	19	100	68.8	24.1
Environment domain score	13	100	61.3	22.4
Crowding index	5	5	1.873	97

Table 2: Distribution of study sample according to socio–demographic characteristics & ownership (residency, marital state, education level, occupation, home & car ownership) it shows that most patients live in cities & and 70.9% of then were married & more than half of them were less than secondary school graduated & the majority were housewives & more than half have their own home & car.

Table 2: Distribution of the study sample according to socio demographic characteristics &ownership (total 103).

Socio -demographic Character	N	%
l-Residency		
-Urban	98	95.1
-Rural	5	4.9
2-Marital status		
-Single	11	10.7
-Married	73	70.9
-Widow	17	16.5
-Divorced	2	1.9
3-Education level		
-illiterate	16	15.5
-Read &write	l3	12.6
-Primary	26	25.2
-intermediate school	11	10.7
-Secondary school	l4	13.6
-University &more	23	22.3
4-Occupation		
-Governmental official	22	21.4
-Retired	5	4.9
-Private official	1	1.0
-House wile	75	72.8
5-Home ownership		
-Own	66	64.1
-Rent	l9	18.4
-Shared	11	10.7
-Slim	7	6.8
6-Car ownership		
-Car owner	55	53.4
-Not car owner	48	46.6

Table 3 Represent the study sample according to family history, past medical history, hormonal history, psychological history, breast feeding history & smoking history. Statistical analysis shows that 68% have negative family history, 55.3% have negative past medical history, 59.2% have negative hormonal history, the majority (97.1%) have negative psychological history, 76.7% have positive breastfeeding history & 93.2% have negative smoking history.

Table 3: Distribution of the study sample according to family, past medical, hormonal, psychological, breast feeding &smoking history (total: 102 one patient is missing)

Variable	N	%
1-farnily history		
-positive	32	31.1
-negative	70	68.0
2-past medical history		
-positive	45	43.7
-negative	57	55.3
3-hormonal history		
-positive	41	39.8
-negative	61	59.2
4-psychological history		
-positive	3	2.9
-negative	100	97.2
5-breast feeding history		
-positive	79	76.7
-negative	23	22.3
6-smoking history		
-positive	7	6.8
-negative	96	93.2

Figure 2 shows the result of clinical statistics of breast cancer patients. The percentage of clinical presentations were breast lump, mastalgia, lymph node enlargement, non-specific complain, nipple retraction & nipple discharge were (77%, 42%, 32%, 29%,22%, I5%) respectively.
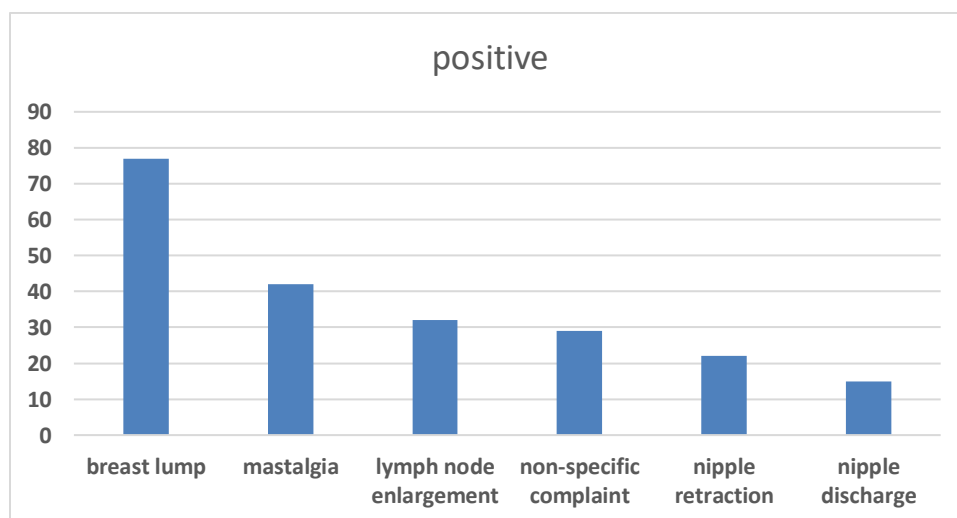

Figure 2: Distribution of study sample according to clinical presentation

Figure 3 presents the results of scoring of quality of life which shows that poor quality of life was only 10 patients 10%, acceptable quality of life was 39%, good was 43% & very good quality of life was (8%).
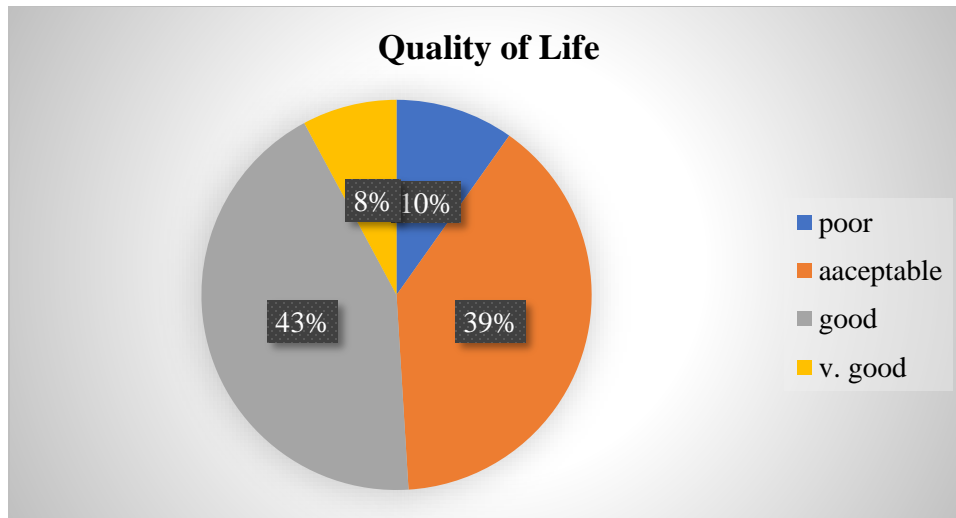
Figure 3: Distribution of scoring of study sample according to QCL-BREF

Table 4 Represents the correlation of QOL domains of the study sample according to some variables. Regarding age, it had a direct relationship with the environmental domain while the menarche &crowding index has an inverse relationship with the environmental domain.

Table 4: Correlation of QOL domains according to some variables.

Variable	Physical domain	Psychological domain	Social Domain	Environmental domain
Age	r 004	.132	.190	.214*
	p .972	.182	.054	.030
Menarche	r -.059	.000	-.106	-.207*
	p .553	.999	.288	.036
Period of diagnosis	r-.08	-.07	-.08	-.03
	p .41	.42	.39	.70
Crowding index	r- .05	-.07	-.11	-.25(**)
	p .61	.46	.25	.009

*Correlation is significant at the 0.0,5
**Correlation is significant at the 0.01

Table 5 represents the relationship of QOL domains with each other. It shows that each QOL domain had a strong relation with other domains.

Table 5 Distribution of QOL domains in relation to each other

QOL domains	physical	Psychological	social	environment
Physical	1	r.41(**)	.32(**)	.36(**)
		p.000	.001	.000
Psychological	r.41**	1	.30**	.35**
	p.000		.002	.000
Social	r.32**	.30**	1	.45**
	p.000	.002		.000
environment	r.36**	.35**	.45**	1
	p.000	.000	.000	

*Correlation is significant at the 0.05
**Correlation is significant at the 0 0l

Table 6 represents the relationship of the physical domain with socio-demographic characteristics & ownership. Statistical analysis shows that there is no relationship between the physical domain with socio-demographic characteristics but there is a significant relationship with home ownership & p-value = 0.001.

Table 6 Distribution of physical domain scores of the study sample according to socio-demographic characteristics & ownership (total:103).

Variable	N	v. poor	poor	Acceptable	good	v. good	P value
l-Marital status							.209
-Single	11	18.2	27.3	54.5	0	0	
-Married	73	5.5	30. I	38.4	23.3	2.7	
-Widow	17	0	35.3	35.3	29.4	0	
-divorced	2	50	0	0	50	0	
2-Education level							.755
-Illiterate	16	6.3	43.8	31.3	18.8	0	
-Read &write	13	7.7	23.1	46.2	23.1	0	
-Primary school	26	7.7	23.1	30.8	10.8	7.7	
-Intermediate	11	9.1	18.2	545	182	0	
school	14	0	35.7	57.1	7.1	0	
-Secondary school	23	8.7	34.8	30.4	26.1	0	
-University &over							
3-Occupation							.200
-Governmental	22	4.5	36.4	40.9	18.2	0	
official	5	0	40.0	40	20	0	
-Retired	1	100	0	0	0	0	
-Private official	75	6.7	28.0	38.7	24	2.7	
4- Residency							.849
-Urban	98	7.1	30.6	38.8	21.4	2	
-Rural	5	0	20	40	40	0	
5-Home ownership							.001
-Owner	66	9.1	28.8	37.9	24.2	0	
-Rent	l9	5.3	42.1	31.6	21.1	0	
-Share	11	0	27.3	45.5	27.3	0	
-Slim	7	0	14.3	57.1	0	28.6	
6-car ownership							.314
-Car owner	55	7.3	36.4	32.7	20	3.6	
-Not car owner	48	6.3	22.9	45.8	25	0	

Table 7 Represent the relation of psychological domain with Sociodemographic characteristics & ownership. Statistical analysis shows there is no significant relationship with socio-demographic characteristics & ownership.

Table 7 Distribution of psychological domain scores of the study sample according to socio-demographic characteristics & ownership (total:103).

Variable	N	poor	Acceptable	good	v. good	P value
l-Marital status						.172
-Single	11	18.2	18.2	45.5	18.2	
-Married	73	5.5	43.8	21.4	23.3	
-Widow	17	11.8	41.2	41.2	5.9	
-divorced	2	50	0	50	0	
2-Education level						.361

Variable	N	v. poor	poor	Acceptable	good	v. good	P value
-Illiterate	16	12.5	43.8	37.5	6.3		
-Read &write	13	15.4	38.5	77	38.5		
-Primary school	26	3.8	34.6	38.5	23.1		
-Intermediate school	11	0	27.3	36.4	36.4		
-Secondary school	14	7.1	57.1	35.7	0		
-University &over	23	13.0	39.1	30.4	17.4		
3-Occupation							.451
-Governmental official	22	18.2	40.9	31.8	9.1		
-Retired	5	0	60	40	0		
-Private official	1	0	0	100	0		
	75	6.7	38.7	30.7	24		
4- Residency							.520
-Urban	98	9.2	40.8	30.6	19.4		
-Rural	5	0	20	60	20		
5-Home ownership							.500
-Owner	66	7.6	45.5	21.3	19.7		
-Rent	l9	5.3	31.6	36.8	26.3		
-Share	11	9.1	27.3	45.5	18.2		
-Slim	7	28.6	28.6	42.9	0		
6-car ownership							.176
-Car owner	55	5.5	49.1	27.3	18.2		
-Not car owner	48	12.5	29.2	37.5	20.8		

Table 8 Represent the relation of social domain with socio demographic characteristics' &ownership. Statistical analysis shows that is a direct relationship between marital state &social domain where married appear to have good QOL regarding social domain also homeowner had association with social domain where p value: 0.014 which is significant.

Table 8 Distribution of physical domain scores of the study sample according to socio-demographic characteristics & ownership (total:103).

		Social domain score					
Variable	N	v. poor	poor	Acceptable	good	v. good	P value
l-Marital status							.000
-Single	11	9.1	27.3	36.4	18.2	9.1	
-Married	73	0	12.3	12.3	30.1	45.2	
-Widow	17	5.9	5.9	58.8	29.4	0	
-divorced	2	0	0	50	50	0	
2-Education level							.442
-Illiterate	16	6.3	6.3	18.8	37.5	31.3	
-Read &write	13	0	15.4	0	3 8.5	46.2	
-Primary school	26	3.8	15.4	34.6	23.1	23.1	
-Intermediate school	11	0	0	27.3	9.1	63.6	
-Secondary school	14	0	21.4	14.3	28.6	35.7	
-University &over	23	0	l3	30.4	34.8	21.7	
3-Occupation						22.7	.747
-Governmental official	22	0	13.6	31.8	31.8	0	
	5	0	20	20	60	100	
-Retired	1	0	0	0	0	37.5	
-Private official	75	2.7	12	21.3	26.7		

Variable	N	v. poor	poor	Acceptable	good	v. good	P value
4- Residency							.758
-Urban	98	2	13.3	22.4	28.6	33.7	
-Rural	5	0	0	40	40	20	
5-Home ownership							.014
-Owner	66	1.5	4.5	24.2	33.3	36.4	
-Rent	l9	0	3l.6	36.8	10.5	21.1	
-Share	11	9.1	18.2	9.1	45.5	18.2	
-Slim	7	0	28.6	0	14.3	51.1	
6-car ownership							.241
-Car owner	55	0	10.9	18.2	34.5	36.4	
-Not car owner	48	42	14.6	29.2	22.9	29.2	

Table 9 Represent the relation of environmental domain with socio demographic characteristics' & ownership. Statistical analysis shows that there was a significant relationship with residency, also with home ownership & car ownership p value: 0.16, 0.27, 0.39 respectively.

Table 9 Distribution of the environmental domain score of the study sample according to socio demographic characteristics & ownership (total: 103).

Variable	N	environmental domain score					P value
		v. poor	poor	Acceptable	good	v. good	
l-Marital status							.462
-Single	11	18.2	27.3	27.3	27.3	0	
-Married	73	6.8	11	21.9	31.5	28.8	
-Widow	17	0	17.6	23.5	41.2	17.6	
-divorced	2	0	0	50	0	50	
2-Education level					31.3		.148
-Illiterate	16	12.5	6.3	43.8	30.8	6.3	
-Read &write	13	15.4	23.1	7.7	15.4	23.1	
-Primary school	26	7.7	19.2	19.2	27.3	38.5	
-Intermediate school	11	0	0	45.5	42.9	27.3	
-Secondary school	14	7.1	21.4	7.1	47.8	21.4	
-University &over	23	0	8.7	21.7		21.7	
3-Occupation					18.2		.191
-Governmental official	22	0	13.6	18.2	50	20	
-Retired	5	0	0	0	80	0	
-Private official	1	0	0	100	0	26.7	
	75	9.3	14.7	25.3	24		
4- Residency							.016
-Urban	98	7.1	11.2	24.5	33.7	23.5	
-Rural	5	0	60	0	0	40	
5-Home ownership							.027
-Owner	66	1.5	13.6	19.7	37.9	27.3	
-Rent	l9	10.5	21.1	36.8	26.3	5.3	
-Share	11	18.2	9.1	36.4	9.1	27.3	
-Slim	7	28.6	0	0	28.6	42.9	
6-car ownership							.039
-Car owner	55	1.8	9.1	20	40	29.1	
-Not car owner	48	12.5	18.8	27.1	22.9	18.8	

Table 10 Represent the association between physical domain scores of QOL, with family history. Past medical history, hormonal history. Psychological history, breast feeding history & smoking history. Statistical analysis shows that there is direct association with past medical p value: 0.017 & a significant association with psychological history p value: 0.001 & no association with other variables.

Table 10 Distribution of the physical domain score of the study sample according to some variables (total:103).

		physical domain score					
Variable	N	v. poor	poor	Acceptable	good	v. good	P value
l-Family history -Positive -Negative	32 70	9.4 5.7	25 31.4	34.4 41.4	25 21.4	6.3 0	.238
2-Past medical history -Positive -Negative	45 57	4.4 8.8	46.7 17.5	26.7 47.4	22.2 22.8	0 3.5	.017
3-Hormonal history -Positive -Negative	41 61	7.3 6.6	24.4 34.4	36.6 39.3	26.8 19.7	4.9 0	.642
4-PsychoIogical history -Positive -Negative	3 100	0 1	0 31	66.7 38	0 23	33.3 1	.001
5-Breast-feeding history -Positive -Negative	79 23	6.3 8.7	29.1 34.8	38 39.1	26.6 8.7	0 8.7	.179
6-Smoking history -Positive -Negative	7 96	14.3 6.3	28.6 30.2	28,6 39.6	28.6 21.9	0 2.1	.893

Table 11 Represent the association between the psychological domain of the study sample with family history, past medical, hormonal, psychological, breast feeding & smoking history. Statistical analysis shows that there was no significant relationship between psychological domain & these variables.

Table 11 Distribution of the psychological domain score of the study sample according to some variables (total:103).

		Psychological domain score				
Variable	N	poor	Acceptable	good	v. good	P value
l-Family history -Positive -Negative	32 70	6.3 l0	40.6 38.6	31.3 32.9	21.9 18.6	.916
2-Past medical history -Positive -Negative	45 57	4.4 12.3	35.3 20.8	26.7 36.8	15.6 21.1	. 093
3-Hormonal history -Positive -Negative	41 61	4.9 11.5	39 39.3	34.1 31.1	22 18	.804
4-PsychoIogical history	3	33.3	33.3	33.3	0	.428

-Positive -Negative	100	8	40	32	20	
5-Breast-feeding history -Positive -Negative	79 23	7.6 13	39.2 39.1	34.2 26.1	19 21.1	.861
6-Smoking history -Positive -Negative	7 96	0 9.4	85.7 36.5	0 34.4	14.3 19.8	.068

Table 12 Represent the association between the social domain of the study with family history, past medical, hormonal, psychological, breast feeding & smoking history. Statistical analysis shows that there was no relationship between social domain &all these variables.

Table 12 Distribution of the social domain score of the study sample according to some variables (total:103).

		social domain score					
Variable	N	v. poor	poor	Acceptable	good	v. good	P value
l-Family history -Positive -Negative	32 70	0 2.9	15.6 10	25 22.9	28.1 30	31.3 34.3	.803
2-Past medical history -Positive -Negative	45 57	0 3.5	11.1 14	22.2 24.6	33.3 26.3	33.3 31.6	.690
3-Hormonal history -Positive -Negative	41 61	2.4 1.6	7.3 16.4	19.5 24.6	29.3 29.5	41.5 27.9	.575
4-PsychoIogical history -Positive -Negative	3 100	0 2	0 13	33.3 23	33.3 29	33.3 33	.963
5-Breast-feeding history -Positive -Negative	79 23	0 8.7	12.7 l3	22.8 26.1	31.6 21.1	32.9 30.4	.286
6-Smoking history -Positive -Negative	7 96	14.3 1	14.3 12.5	42.9 21.9	0 31.3	28.6 33.3	.052

Table 13 Represent the association between the environmental domain of the study sample with family history, past medical, hormonal, psychological, breast feeding & smoking history. Statistical analysis shows that there was no significant relationship between environmental domain & all these variables.

Table 13 Distribution of the environmental domain score of the study sample according to some variables (total:103).

		environmental domain score					
Variable	N	v. poor	poor	Acceptable	good	v. good	P value
l-Family history							.760

-Positive	32	3.1	18.8	21.9	31.3	25	
-Negative	70	8.6	11.4	24.3	31.4	24.3	
2-Past medical history							.740
-Positive	45	4.4	17.8	22.2	33.3	22.2	
-Negative	57	8.8	10.5	24.6	29.8	26.3	
3-Hormonal history							.434
-Positive	41	4.9	7.3	26.8	26.8	34.1	
-Negative	61	8.2	18	21.3	34.4	18	
4-Psychological history							.625
-Positive	3	0	0	0	66.1	33.3	
-Negative	100	7	14	24	31	24	
5-Breast-feeding history							.245
-Positive	79	5.1	11.4	22.8	32.9	27.8	
-Negative	23	13	17.4	26.1	30.4	13	
6-Smoking history							.419
-Positive	7	0	14.3	28.6	51.1	0	
-Negative	96	7.3	13.5	22.9	30.2	26	

Table 14 Represent the association between the QOL domains & clinical presentations. Statistical analysis showed that there is reverse relationship between Physical domain & breast lump p value: 0.04 also there is reverse relationship between psychological domain & mastalgia, p value: 0.043.

Table 14 Distribution of QOL domains according to clinical presentations (Total:103)

clinical presentation		Physical domain	Psychological domain	Social domain	Environmental domain
Breast lump	Correlation coefficient	-.203*	.033	.181	.039
	P value	.040	.739	.067	.693
Lymph node enlargement	Correlation coefficient	.069	-.083	-.022	-.153
	P value	.487	.404	.827	.126
Nipple discharge	Correlation coefficient	-.028	-.030	-.003	-.045
	P value	.777	.761	.973	.652
Nipple retraction	Correlation coefficient	.052	.0005	.124	.154
	P value	.602	.960	.211	.120
Mastalgia	Correlation coefficient	-.068	-.200*	-.010	-.187
	P value	.497	.043	.920	.059
Nonspecific	Correlation	.068	.045	-.065	-.048

coefficient				
P value	.492	.650	.516	.631

DUSSCUSION:

In this study of QOL in females with breast cancer, QOL was studied according to some socio demographics, ownership & clinical characteristics as well as other associated factors. In the current study the mean age at diagnosis was 47.89, the majority were housewives, less than secondary school graduated & were married while in another study done by Dadzi et al [9] they found that the mean age was higher 59.6 years, they were highly educated & half of them were employee & the majority were married. Other study done by Lavdaniti M et al. showed that the mean age of the patients was 51.52 ± 12.10. Most of the patients were married (*n* = 47, 77%) and were high school graduates (*n* = 20, 32.8%). Majority were housewives, less than high school graduated & were married. This younger age at diagnosis may be belonging to the accumulation effect of wars on the country & the hard environment which prevent most families from completing their education. In current study QOL assessed at least one month after diagnosis & it is found that age at diagnosis had no relationship with all domains of QOL except environmental domain which it had direct influence, this may be because older women diagnosed to have breast cancer had completed their families & had their own house while younger patients were still in the beginning of their fertility life so their environment would be less satisfied.

The studies that done before to examine the quality of life for female patients with breast cancer it was done after four months after diagnosis of the disease, in this time the patients have treatment for a while and improve in their condition. One study in India done by Pandy et al [11] in 2006 for 251 females with breast cancer and surgery done for them, they found that a significant decrease in physical wellbeing, functional wellbeing before & after surgery for a month, but no significant difference for social wellbeing or emotional wellbeing. Pandy et al studies show that younger age with more advance stage Observe lower QOL. The current study appears that period of diagnosis has no effect on all domains of QOL while Arneja J, Brooks JD [12] from transitions study for survival from breast cancer in Canada society sample, report that high comorbidity with bad quality of life and emotional status, this result would affect the work to improve the life quality of patient with breast cancer.

Regarding menarche the current study showed that menarche had inverse relation with environmental domain & this may be explained by that good environmental factor enhance early menstruation while stressful condition may be one of the causes which lead to delay menstruation.

Regarding crowding index in the current study had inverse relationship with environmental domain & had no effect on other domains; the low crowding index may be associated with high score of environmental domains. During the period of the study no available study could be found to compare with regarding this variable.

Regarding physical domain, the current study shows that there were no association with marital status while Perry LM et al [13] found that being married were associated with worse physical wellbeing, that may be because Iraqi family are big family so there were more than one member in house help the patient in her duties. The current study found that there were no associations between all domains of QOL with employment & education level. Other study done by Bowen et al [14] in 2007 for 804 females with breast cancer after two years of diagnosis, that being housewives, unemployed or retired were showed poorer in physical function in compare with that working. These differences may be because of differences in sample size. In the current study being homeowner associated with good physical wellbeing this may be explained by that homeowners may be economically more stable than other living in rented, shared or governmental places.

Psychological domain is not associated with marital status. Education level, employment, or ownership this may be because of the small numbers of patients having psychological problems only three from 103 have psychological problems.

Quality of life appears to be affected by some clinical complaints of the patients. Breast lump had inverse relationship with physical domain so patients with more than one lump were physically ill more than that just one lump.

Mastalgia showed to have inverse effect on social wellbeing; this may be explained by the fact that pain may make the patient to be socially withdrawn.

Regarding social domain, it appears to have a strong relationship with marriage. Being married is associated with good social wellbeing than being single, widowed, or divorced patients. This may be explained that a married patient may have social support from her husband, her children's & entire of her family compared to others. Also, social wellbeing increases with home ownership. This also may be related to economic stability. Regarding environmental domain the current study shows that living in urban area associated with

good environment this may be because the services & style of life in urban may be better than rural area. Home ownership & car ownership associated with good environmental domain. Regarding the effect of associated co morbidity whether physical or psychological on domains it had a strong effect on physical domain in a study done by Ganz et al [22] in 2003 agree with the current study in that the Presence of co-morbid conditions were a major contributor to QOL. While other Domains of QOL appear to be not affected by co- morbidity. This study found that there were strong associations between QOL domains with each other's, higher score in one domain associated with higher score in other domains Kwan et al [15] agree with the current study in this point that positive domains were associated with higher overall QOL. Other variable taken by the current study like hormonal history, breast feeding history, smoking history appear to have no effect on QOL & for the time being no available study was found to compare with.

CONCLUSIONS:
- A low proportion of breast cancer patients had poor quality of life evaluation according to BREF-QOL compared to majority who are acceptable, good & very good.
- The environmental domain of QOL was found to have a significant association with age, menarche, crowding index, living in urban, home ownership & car ownership.
- Home ownership had strong association with QOL domain (physical, social & environmental).
- Being married associated with good social wellbeing.
- Psychological wellbeing not affected by (socio-demographic characteristics& ownerships).
- Associated co morbidity either physical or psychological had significant effect
- On physical wellbeing.

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