Results

The aim of the present study is to study the effect of breast cancer on women's quality of life. A total of 100 breast cancer patients were enrolled in the study.

The study has reached the following results:

1-First: Sociodemographic characteristics and Medical history of the disease (table 1 and 2).

2-Second: Knowledge and ADLs about breast cancer (table3, 4, and 5).

3-Third: Effect of disease on QOL (table 6, 7, 8, 9, 10, and 11).

4-Fourth: Level of QOL dimensions (12, 13, 14, 15, 16, and 17).

5- Fifth: Correlation (table 18, and 19).

Table (1): Demographic Characteristics of the Study Sample

Items	n = 100	
	No	**%**
Age :		
1. 20- < 40	28	28
2. 40 -<60	56	56
3. 60 -65	16	16
X + **SD**	46.4+11.2	
Educational Level :		
• Illiterate	55	55
2. Read and Write	5	5
3. Basic Education	21	21
4. Secondary	8	8
5. University	11	11
Occupation :		
1.No	79	79
2.Yes	21	21
Residence :		
1.Rural	65	65
2.Urban	35	35

Table (1) reveals that slightly more than half (56%) of breast cancer women who their age ranged from 40-<60 year with mean age 46.4+11.2. Regarding to their educational level, (55%) of these women were illiterate and their basic education represented by (21%), respectively (8%) had secondary education and (11%) had university education. In relation to their residence, two thirds (65%) of them were from rural area, meanwhile one third of them (35%) were from urban area.

Continue table (1): Demographic Characteristics of the Study Sample

Items	n = 100	
	No	**%**
Income :		
1.Enough	**30**	**30**
2.Not Enough	**70**	**70**
Children:		
1.Nothing	**9**	**9**
2.1-3	51	51
3.4-6	37	37
4. >6	3	3
Family Type:		
1.Husband	**9**	**9**
2.Husband and Children	**91**	**91**
Near the place of Treatment:		
1.Near	**45**	**45**
2.Far	**55**	**55**

Concerning to patient income, Table (1) reveals that slightly more than two third (70%) of breast cancer women their income hadn't enough, meanwhile one third of them (30%) of them their income had enough. Regarding to the number of their children, slightly more than half (51%) of them had 1 to 3 children, mean while (37%) of them had 4 to 6 children, and (9%) of them hadn't children .The above table shows that ,(91%) of breast cancer women live with their husbands and children. regard being to near the place of treatment slightly more than half (55%) of them far from place of treatment, while slightly less than half (45%) of them near the place of treatment.

Table (2): Medical history Of the Study Sample

Items	n= 100	
	No	%
Date of the first diagnosis :		
1. < 6 months	13	13
2. 6 m -	45	45
3. 1 year -	11	11
4. 1.5 year -	7	7
5. > 2 years	24	24
Main complains:		
1.Mass	61	61
2.Pain	4	4
3.Discharge	12	12
4. All of Them	23	23
Stages of the Disease :		
1.First stage	13	13
2.Second stage	51	51
3.Third stage	31	31
4.Fourth stage	5	5
Suffering from chronic disease:		
1.Nothing	69	69
2.Diabetes	13	13
3.Hypertension	7	7
4. Diabetes & Hypertension	4	4
5.Renal disease	3	3
6.Cardiac disease	1	1
7.Liver disease	3	3

Table (2) reveals that slightly less than half (45%) of breast cancer women their first diagnosis started from 6 months to 1 year, while (42%) of them their first diagnosis ranged from 1 year to less than 2 years. Concerning to main complains, slightly more than half (51%) of the studied women were breast mass while one third of them suffering from pain and discharge (16%) , and slightly less than one quarter of them (23%) were suffering from all the previous complains. Concerning to stages of disease, (51%) of them were in second stage, (31%) and (5%) of them were in third and fourth stage, and also 13% of them were in first stage. In relation to suffering from chronic diseases, the same table shows that slightly less than one third of them (31%) were suffering from diabetes, hypertension, renal, cardiac and liver diseases.

Continue table (2): Medical history Of the Study Sample

Items	n= 100	
	No	**%**
Description of the health status :		
1.Worth	3	3
2. Stable	16	16
3. Anxious	57	57
4.Improvement	24	24
Type of used treatment :		
1.Surgical	23	23
2.Chemotherapy	32	32
3.Raiotherapy	45	45
Previous operation :		
1.Nothing	69	69
2.Open Heart	1	1
3.hysterectomy	11	11
4.Cholecystectomy	15	15
5. Appendectomy	4	4
Family history of breast cancer:		
1.Yes	36	36
2.No	64	64
Duration of hospital stay:		
1. One week	18	18
2. Two weeks	59	59
3. > 2 weeks	23	23

Table (2) illustrates that more than half (57%) of them had anxiety, meanwhile (3%) of them their health condition were worth, and (40%) of them their health condition were improved and stable. Concerning to type of treatment, slightly less than one quarter (23%) of them had surgery, one third of them (32%) had chemotherapy and 45% of them had radiotherapy. Slightly less than one third of them (31%) had previous operation (open heart, hysterectomy, gall bladder and appendicitis). Concerning to family history of breast cancer slightly more than one third (36%) of them had family history of breast cancer. In relation to duration of hospital stay three quarters of them (77%) of them their hospital stay ranged from 1-2 weeks, slightly less than one quarter (23%) of them stayed more than two weeks.

Table (3): Distribution of studied sample according to their activity of daily livings

ADLs	Level of ADLs	
	Poor (< 50%) %	Good (50- < 70%) %
1. personal hygiene	61	39
2. Diet	73	27
3. Physical activities	65	35
4. Exercise	78	22
5. Dressing	71	29
6. Enabling to visit their friends	52	48

Table (3) shows that poor daily activities were reported by the majority of studied breast cancer women (78%), (73%), and (71%) regarding exercise, diet, and dressing as well as slightly less than two thirds of them (65%) and (61%) regarding personal hygiene and physical activities reported poor ADLs. In addition to (52%) of them were reported poor ADLs regarding enabling to visit their friends.

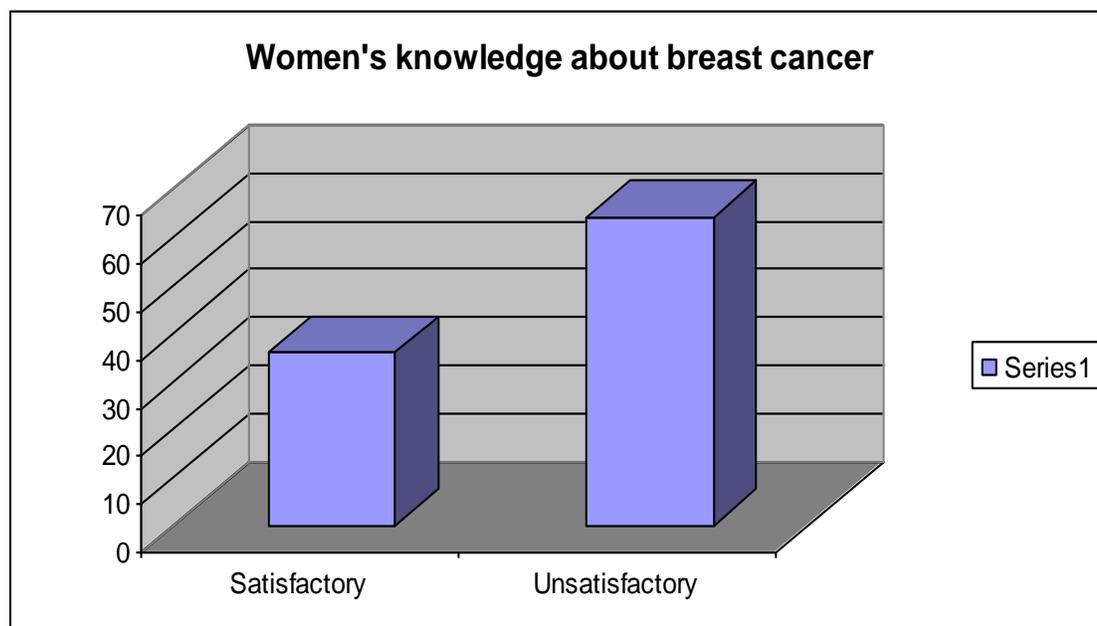**Table (4): Distribution of the Study Sample according to their knowledge about breast cancer**

Items	n= 100	
	No	**%**
· **Definition**	56	56
· **Predisposing Factors:**		
1, Nothing	49	49
2.Herdiatry	28	28
3.Early menstruation	8	8
5.Use of family planning methods	8	8
6.Stress	7	7
· **Suitable age for disease occurrence**	47	47
· **Signs and Symptoms:**		
1.Pain	3	3
2.Mass	33	33
3.Change in size	8	8
4.Change in color	1	1
5.Discharge from nipple	19	19
6.Scars around skin	3	3
7.Pain and mass	32	32
8.Pain under axillary	1	1
· **Available Treatment Methods:**		
1.Surgery	100	100
2.Chemotherapy	100	100
3.Radiation	100	100

Continue Table (4): Distribution of the Study Sample according to their knowledge about breast cancer

Items	n= 100	
	No	**%**
· **Type of Surgical intervention:**		
1.Partial	44	44
2.Total	56	56
· **Hazard of disease in case of delayed diagnosis**	47	47
· **Complication of disease if it neglected**	84	84

Table (4) reveals that most of (84%) and (100%) of breast cancer women had knowledge regarding each of available treatment methods, and their knowledge about complication of breast cancer, also slightly less than half of them (44%) and (47%) had knowledge regarding suitable age of disease occurrence, types of surgical intervention, and hazard of disease, as well as one third of them had knowledge regarding change color around breast and pain under axillary as a sign, and symptoms of breast cancer.

Figure (1)

Women's knowledge about breast cancer

Table (5) Distribution of the Study Sample according to their Source of information on breast cancer

· **Source of information on breast cancer:**		
1.Doctor	10	10
2.Nurse	15	15
3.Nurse &Doctor	70	70
4-Neighbors	3	3
5-Mass media	2	2

As regards their source of information pertaining to breast cancer, Table (5) reveals that less than three quarters (70%) of them their sources of information were from doctor, and nurse.

Part II: Effect of Disease on QOL

Table (6): Effect of Breast Cancer on women's Physical condition

Physical condition	V.Strong	Strong	Average	weak	none
	%	%	%	%	%
1.Overall health	35	36	19	10	-
2.Daliy activities	36	41	14	9	-
3.Self care	33	43	15	9	-
4.Marital status	38	30	28	4	-
5.Fulfill of daily responsibility &Your family	32	40	16	12	-
6.Level of her performance career	23	16	9	7	45
7.level of sleep at night without break	5	21	36	25	13
8.Getting a balanced diet	8	21	41	23	7
9.Effecting on her Weight	8	19	43	22	8
10.Follow up their health condition	55	16	17	22	
11.Ability to reproduction	42	29	-	17	12

Table (6) reveals that about three quarters of the studied women reported that each of their overall health ,their ability to do ADLs, self care , marital status , their ability to fulfill responsibilities toward themselves and their family, follow up and their ability to reproduction were strongly affected by breast cancer .

Table (7): Effect of Breast Cancer on women's Psychological condition

Psychological condition	V.Strong	Strong	Average	weak	none
	%	%	%	%	%
1.Ability to cope with pathological condition	32	35	17	16	0
2.Mental condition	36	32	11	14	7
3.Ability to control your QOL	20	16	38	19	7
4.Satisfaction in your QOL	16	32	27	18	7
5.Ability to concentrate and remember in your surrounding	9	20	31	23	17
6.Anxiety	31	44	11	12	2
7.Depreesion	26	28	14	12	20
8.Fear of exposure to other health problem	36	32	14	12	6
9.Existence of pressures and stress	29	32	18	10	11
10.General self	8	30	43	19	0

Table (7), reveals that about three quarters of the studied women reported that each of their ability to cope with pathological condition , their mental condition, level of anxiety, depression, fear of exposure to other health problem, and the presence of stress were more strongly affected by breast cancer.

Table (8): Effect of Breast Cancer on women's Social Condition

Social condition	V.Strong	Strong	Average	weak	none
	%	%	%	%	%
1.Social welfare	22	55	9	9	15
2.Relationship with neighbors	13	21	35	13	18
3.Relationship with friends	14	20	18	35	13
4.Relationship with family	26	15	31	14	14
5.Isolation	20	10	55	5	10
6.Financial burdens	54	27	13	6	-
7.Family planning	32	29	12	15	12

Table (8), reveals that about three quarters of the studied women reported that each of their need to receive help from others (social welfare), incurred financial burdens as a result of disease and treatment, and their impact of disease to plan to have children were strongly affected by breast cancer.

Table (9): Effect of Breast Cancer on women's Sexual relation

	V.Strong	Strong	Average	Weak	V.weak	none
	%	%	%	%	%	%
- Assessment the Feeling of sexual desire during sexual relation (DSR):						
1. Desire: frequency.	-	1	38	33	28	-
2. Desire: level.	-	1	47	29	23	-
- Assessment the reaching to sexual arousal (DSR):						
3. Arousal: frequency.	1	5	40	30	21	3
4. Arousal: level.	2	-	53	24	18	3
5. Arousal: confidence.	1	10	45	22	20	2
6. Arousal: satisfaction.	2	10	37	27	21	3
- Assessment the vaginal lubrication 'wetness' (DSR):						
7. Lubrication :frequency**.**	7	24	19	11	9	30
8.lubrication**:** difficulty**.**	4	13	15	28	4	36
9.lubrication:frequency of maintaining .	-	6	20	29	8	37
10. lubrication: difficulty in maintaining.	5	12	15	27	3	38

Continue table (9): Effect of Cancer on women's Sexual relation

	V.Strong	Strong	Average	Weak	V.weak	none
- Assessment the sexual stimulation 'reach orgasm' (DSR):						
11. Orgasm: frequency**.**	-	4	50	30	15	1
12. Orgasm: difficulty.	20	17	24	29	7	3
13. Orgasm: satisfaction	21	44	14	-	20	1
- Assessment the sexual relation with partner:						
14. Satisfaction with amount of emotional closeness with partner.	25	44	12	1	18	-
15. Satisfaction with sexual relationship.	24	45	11	2	19	-
16. Satisfaction with overall sex life.	25	46	10	1	18	-
- Assessment the feeling of pain or discomfort (DSR):						
17. Pain: frequency during vaginal penetration.	24	17	28	4	8	19
18. Pain: frequency following vaginal penetration.	24	16	27	8	7	18
19. Pain: level during or following vaginal penetration	28	5	36	7	5	19

Concerning to assessment of sexual desire during sexual relation for breast cancer women , reaching to sexual arousal , their sexual relation with their partner , feeling with pain or discomfort , and their feeling with sexual stimulation or reaching orgasm table (9) illustrates that two thirds of the studied women were affected by disease. As regards assessment of breast cancer women with vaginal lubrication during sexual relation the above table reveals that two thirds of the studied women were affected by breast cancer.

Table (10): Effect of Breast Cancer on women's Spiritual condition s

Spiritual condition	V.Strong	Strong	Average	weak	none
	%	%	%	%	%
1.Feeling of hope in life	9	26	29	21	15
2.Fear of disease progression	23	38	17	14	8
3.Self confidence	8	27	36	24	5
4.Peace of mind and feel safe	32	25	13	19	11
5.Profile of your faith in God	22	38	5	10	25
6.Personal appearance	16	21	30	24	9
7.Being useful to others and have meaning in life	23	31	33	13	-

Table (10) reveals that about three quarters of the studied women reported that each of their level of fear of disease progression , feeling with safety, and peace of mind ,their relation with their God, and being useful to others, and have meaning in life was strongly affected by breast cancer.

Table (11): Effect of Breast Cancer on women's rest and spare time

rest and leisure condition	V.Strong	Strong	Average	weak	none
	%	%	%	%	%
1.Activities in your spare time	19	35	23	12	11
2.Vacation	20	35	19	12	14
3.Ability to enjoy with your life	32	21	28	14	5

Table (11) reveals that about three quarters of the studied women reported that each of their ability to do activities in their spare time, getting a vacation , and their ability to enjoy with their life were strongly affected by breast cancer.

Table (12) level of physical problems of women with breast cancer

Items	number	Percentage %
Nothing	22	22
Mild	29	29
Moderate	32	32
Sever	17	17

Regarding to physical effect of breast cancer , table (12) reveals that slightly more than one third (32%) of them had moderate effect of breast cancer and slightly more than one quarter (29%) of them had mild effect of breast cancer. As compared to (17%) of them had severed physical effect of breast cancer.

Table (13) level of psychological problems of women with breast cancer

Items	number	Percentage %
Nothing	9	9
Mild	24	24
Moderate	46	46
Sever	21	21

Regarding to psychological effect of breast cancer , table (13) emphasises that slightly less than half (46%) of studied sample had moderate effect of breast cancer, also slightly less than one quarter (24%) of them had mild effect of breast cancer. As compared to (21%) of them had sever psychological effect of breast cancer

Table (14) level of Sexual problems of women with breast cancer

Items	number	Percentage %
Nothing	11	11
Mild	29	29
Moderate	36	36
Sever	24	24

Regarding to effect of breast cancer on sexuality , table (14) reveals that slightly more than one third (36%) of them had moderate effect of breast cancer and slightly more than one quarter (29%) of them had mild effect of breast cancer. As compared to slightly less than one quarter (24%) of them had severed effect with breast cancer.

Table (15) level of social problems of women with breast cancer

Items	number	Percentage %
Nothing	30	30
Mild	21	21
Moderate	36	36
Sever	13	13

Regarding to social effect of breast cancer , table (15) reveals that slightly more than one third (36%) of them had moderate effect of breast cancer and slightly less than one quarter (21%) of them had mild effect of breast cancer. As compared to (13%) of them had severed social effect of breast cancer.

Table (16) level of spiritual problems of women with breast cancer

Items	number	percentage
Nothing	9	9
Mild	28	28
Moderate	51	51
Sever	12	12

Regarding to spiritual effect of breast cancer, table (16) reveals that most of the studied sample of women with breast cancer (91%) of them reported that, they had moderate effect (51%), mild effect (28%), and sever effect (12%) with breast cancer. Meanwhile only (9%) of them had no effect of breast cancer.

Table (17) level of rest and spare problems of women with breast cancer

Items	number	percentage
Nothing	2	2
Mild	41	41
Moderate	52	52
Sever	5	5

Regarding to rest and spare time effect as a result of breast cancer, table (17) clears that slightly more than one half (52%) of studied sample had moderate effect of breast cancer and slightly more than one third (41%) of them had mild effect of breast cancer on their rest. As well as (5%) of them had sever effect of breast cancer.

Figure (2)

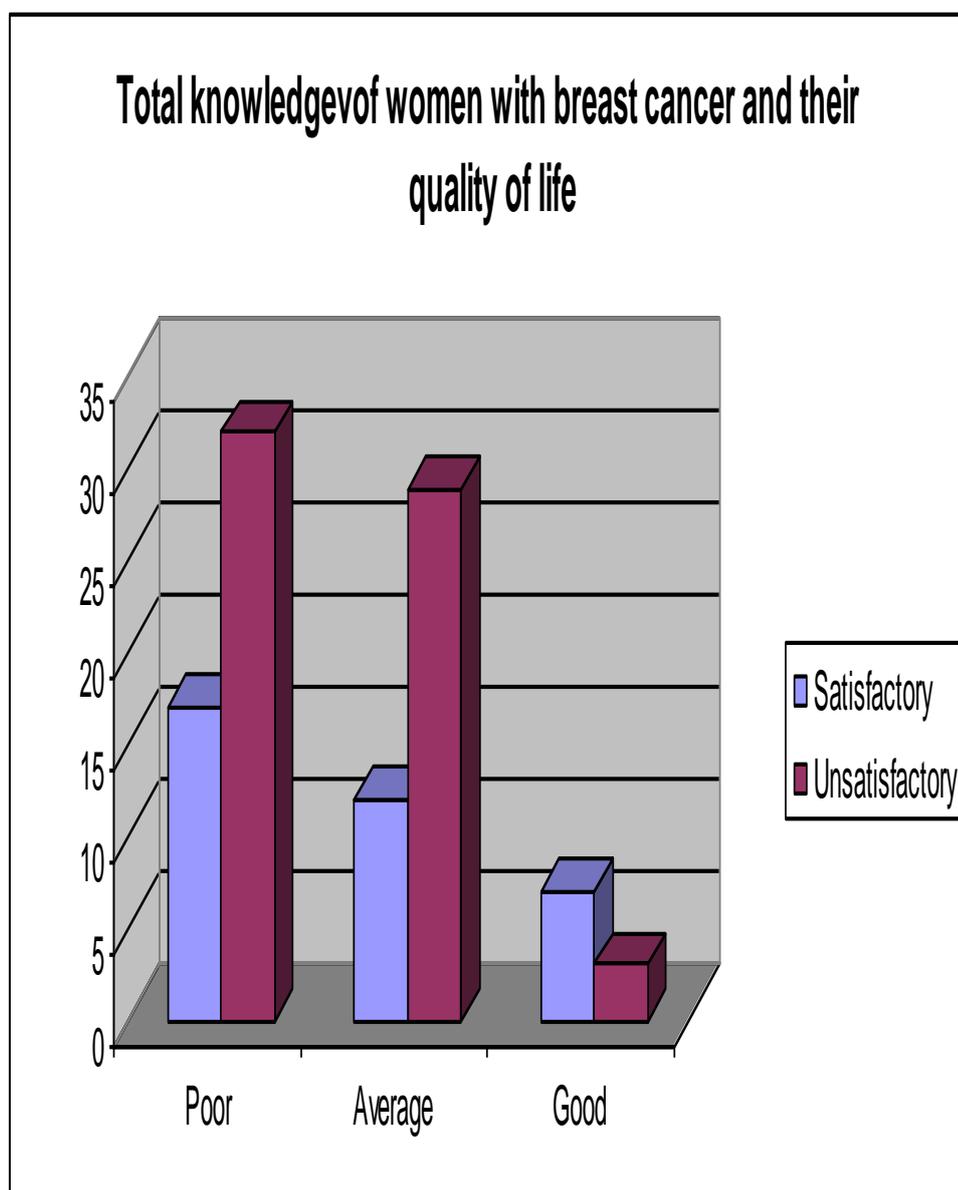Total level of QOL for studied women

Figure (3)

effect of breast cancer on womens work

Figure (4)

Total knowledgevof women with breast cancer and their quality of life

$r = 0.75$ $p < 0.05$

Figure (5)

Relation between chief complain of breast cancer women and their QoL

[Bar chart showing QoL categories (Poor, Average, Good) across chief complaints]

- mass: $x^2=25.7$
- pain: $x^2=3.9$
- discharge: $x^2=6.3$
- all of above: $x^2=21.6$

chief complain
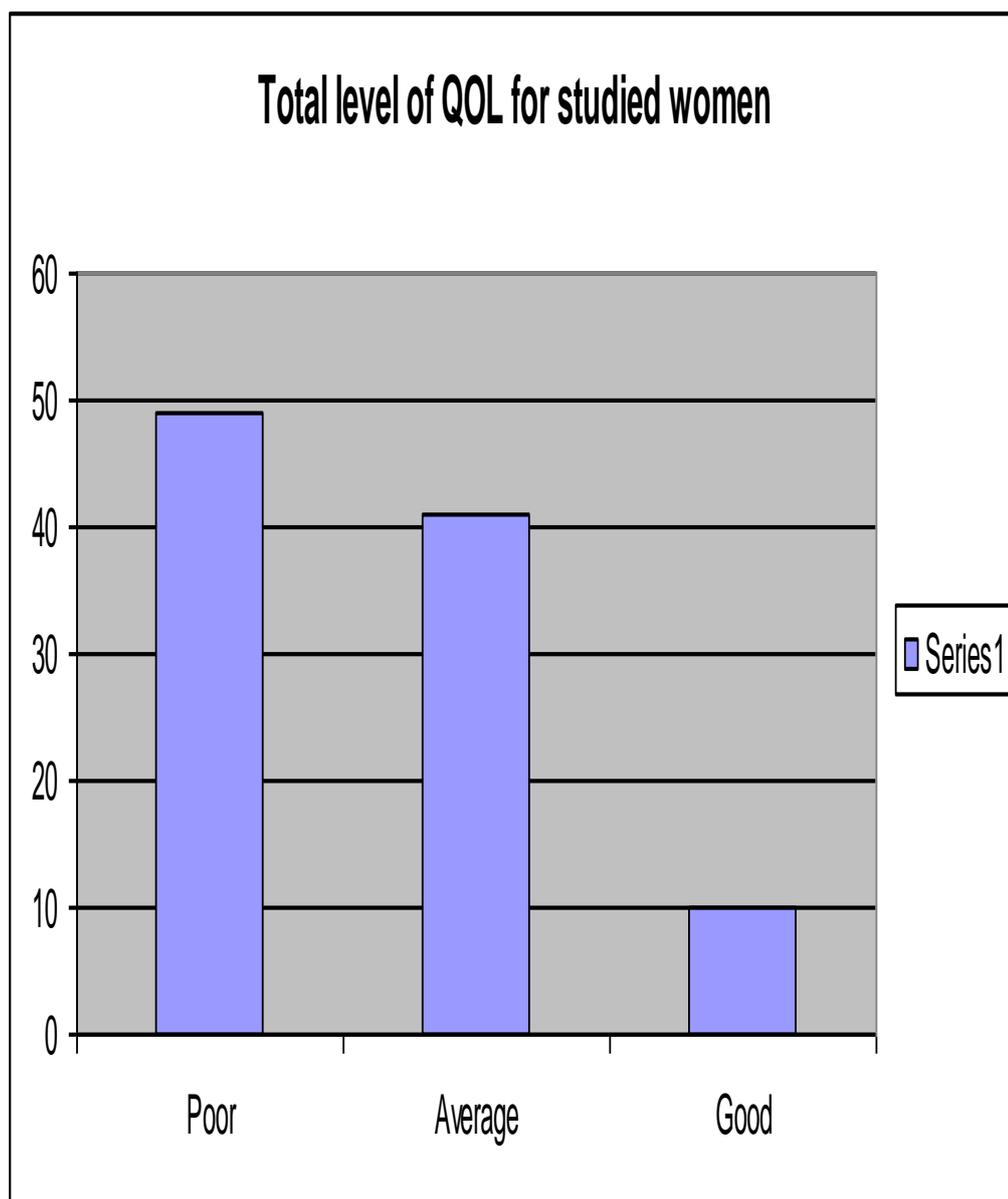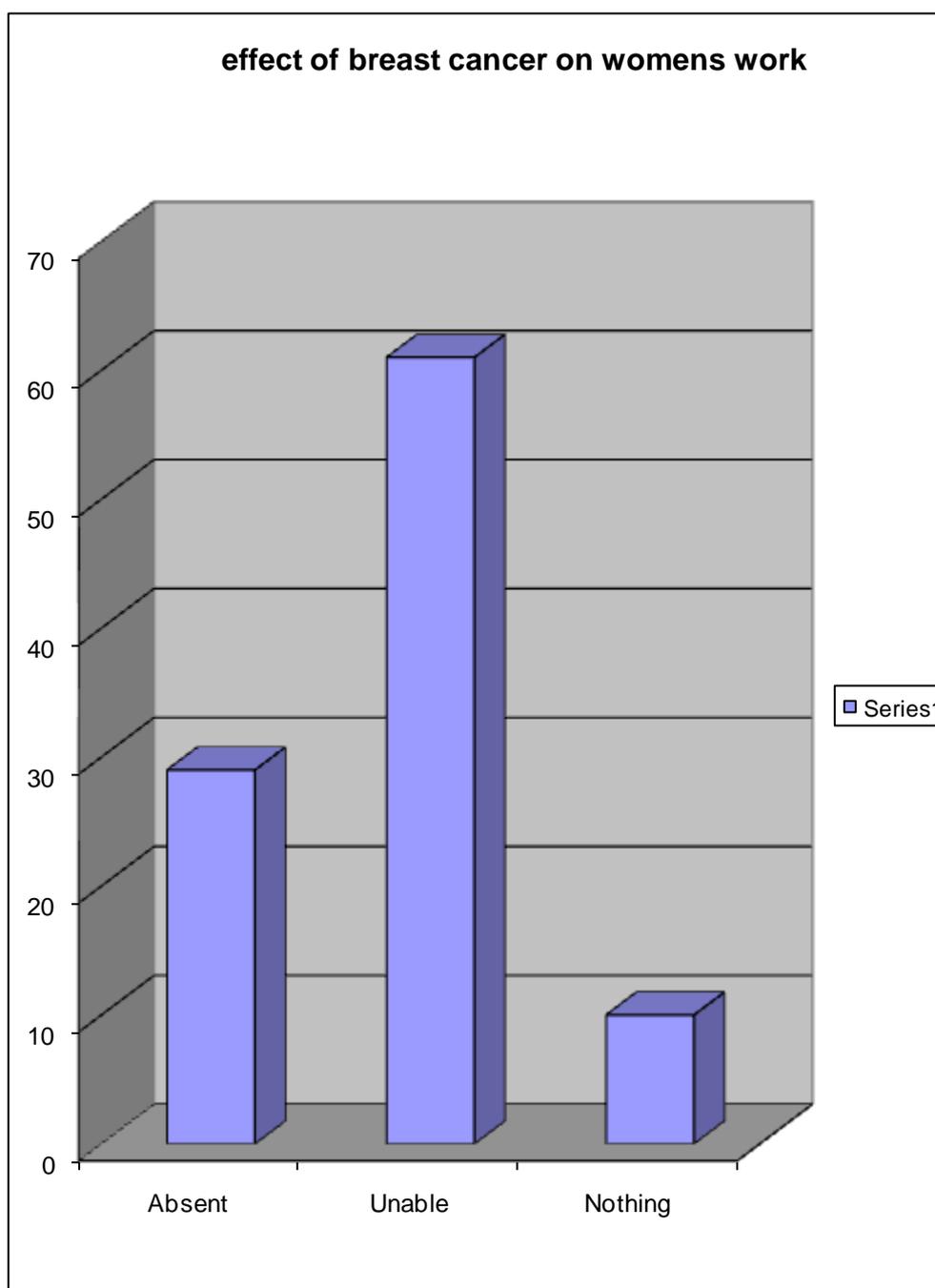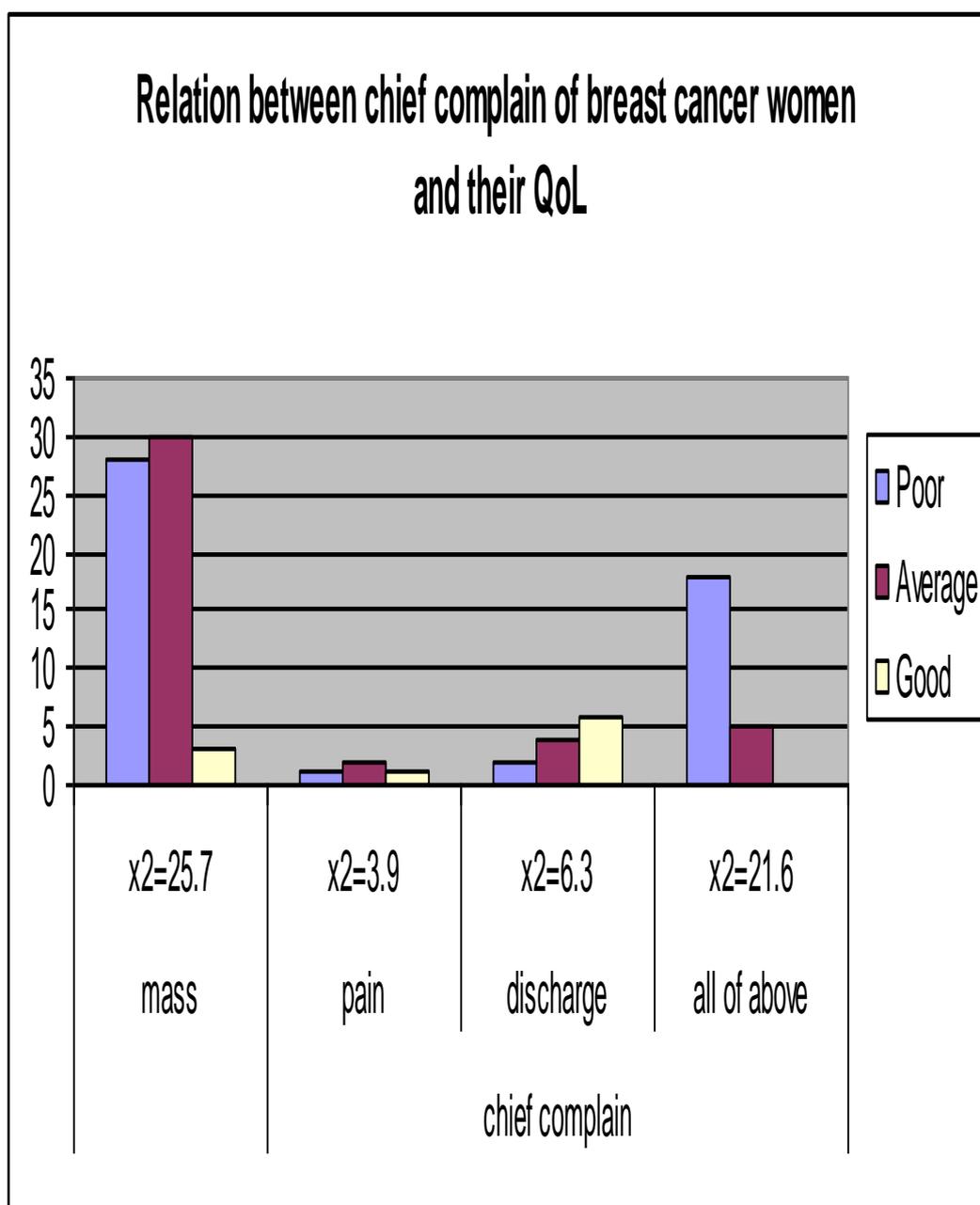
Table (18) Correlation between demographic characteristics of study sample and their QOL

Items	Total QOL				
	Poor N=49	Average N=41	Good N=10	No	r & P
1. Age:					0.61
20-	11	12	5	28	
40-	29	23	4	56	
60-65	9	6	1	16	
2. **Education:**					0.72
Illiterate & low level	31	28	1	60	
Moderate education	13	5	3	21	
High education	5	18	6	19	
3. **Residence:**					0.59
Rural	37	24	4	65	
Urban	12	17	6	35	
4. **Occupation:**					0.43
Working	38	36	5	79	
Not working	11	5	5	21	
5. Income:					0.68
Enough	13	10	7	30	
Not enough	36	31	3	70	
6. **No of children:**					0.62
Nothing	5	3	1	9	
1-3	26	21	4	51	
4- > 6	18	17	5	40	

Table (18), illustrates that the rates of poor quality of life were higher among old aged women, women of low level of education, women from rural area, working women, women of low level of income, and women of high number of children.

Table (19) Correlation between stages of diseases of studied sample and their demographic characteristics

Demographic data	Stages of disease				r & P
	1st N=13	2nd N=51	⪢ - 3 N=36	No	
1. Age:					0.76
20-	7	16	5	28	
40-	4	30	22	56	
60-65	2	5	9	16	
2. Education:					0.58
Illiterate & low level	8	32	20	60	
Moderate education	3	8	10	21	
High education	2	11	6	19	
3. Residence:					0.43
Rural	3	3	15	65	
Urban	10	48	21	35	
4. Occupation:					0.50
Working	9	34	22	79	
Not working	4	17	14	21	
5. Income:					0.82
Enough	11	8	11	30	
Not enough	2	43	25	70	
6. No of children:					0.74
Nothing	6	1	2		
1-3	4	32	15	51	
4- > 6	3	18	19	40	

Regarding stages of disease, Table (19) shows that the rate of women, who have second and third stage of breast cancer disease, were higher in old aged women, women of low level of education, not working women, women from rural area, and women of high number of children.
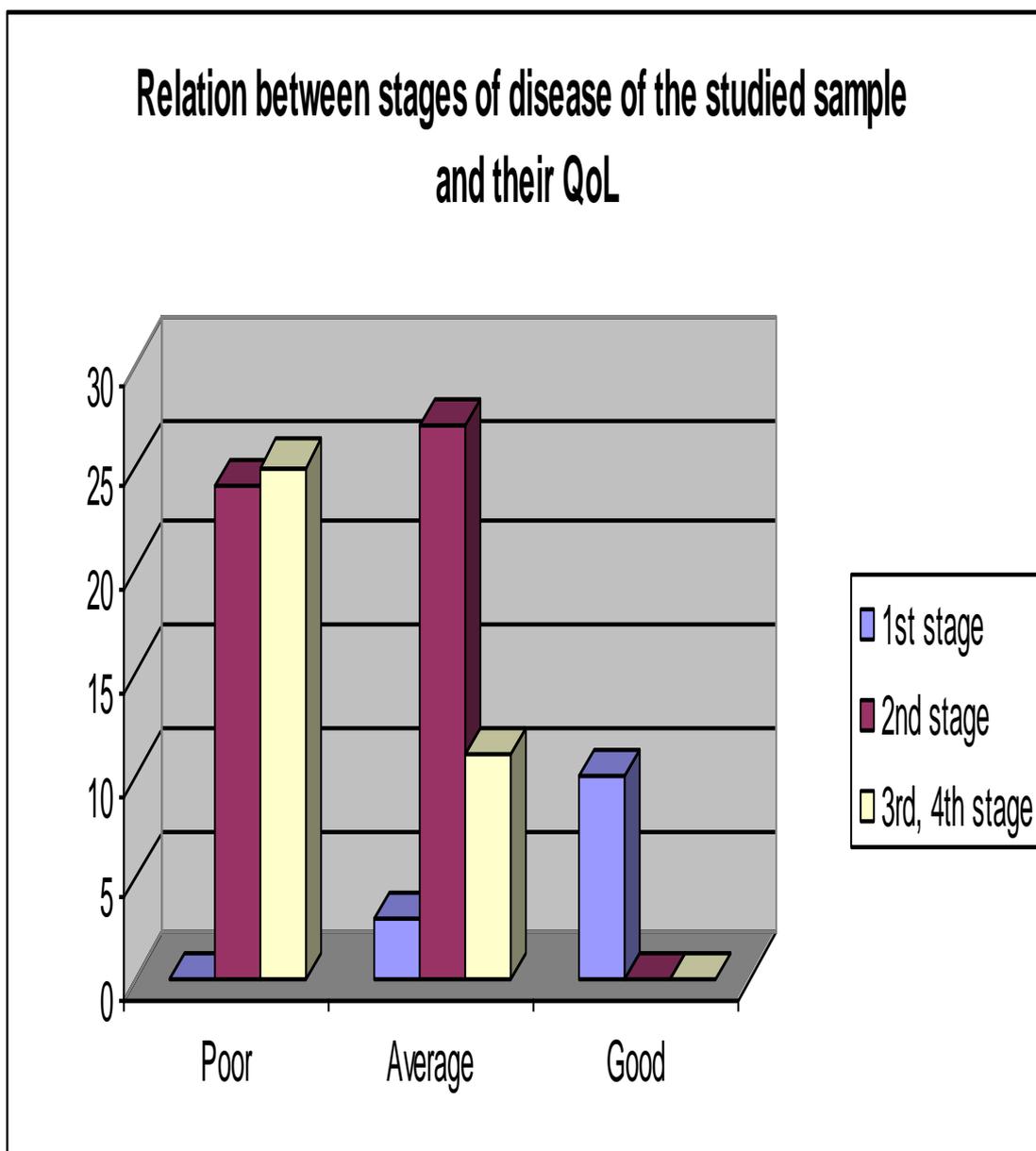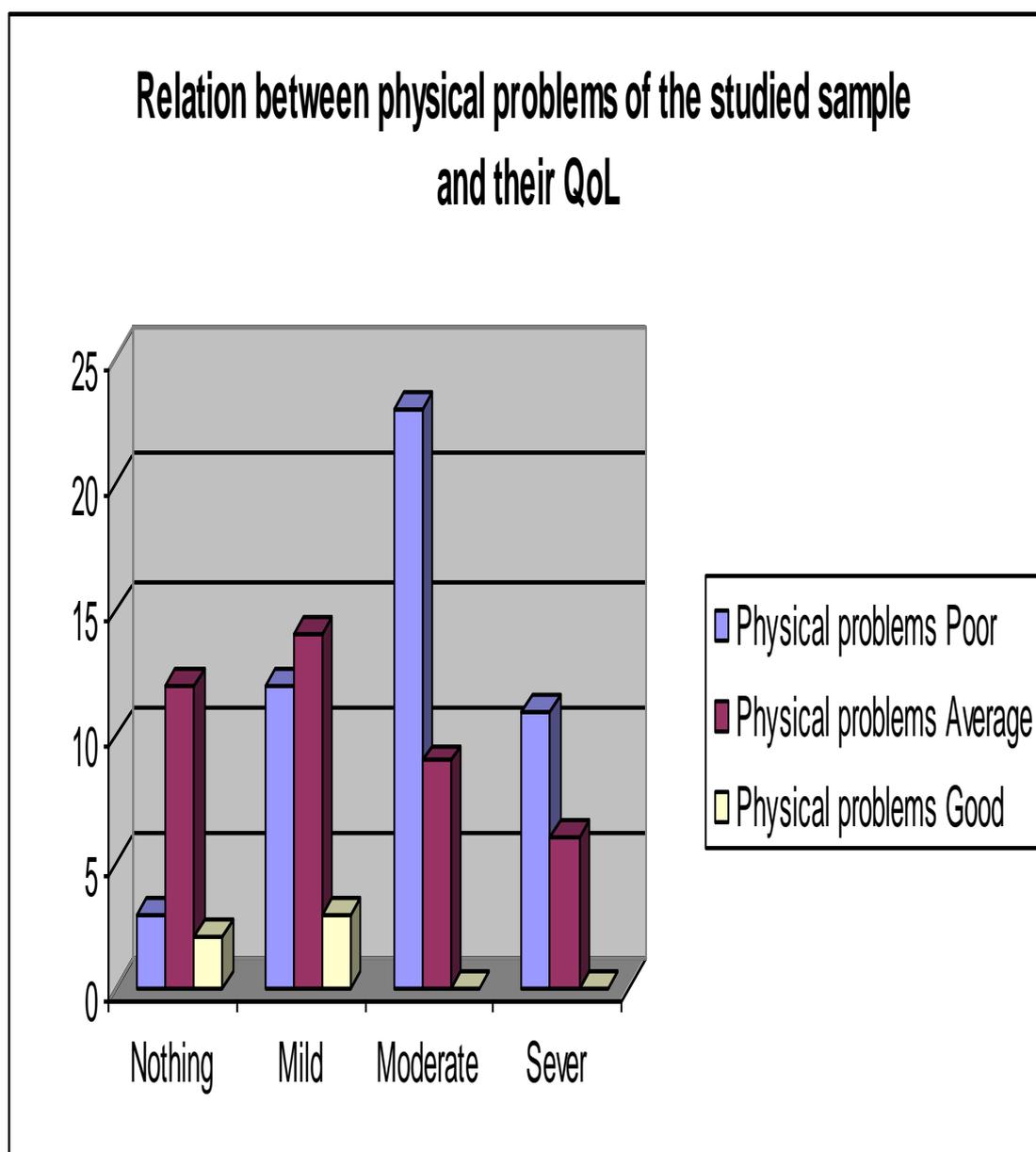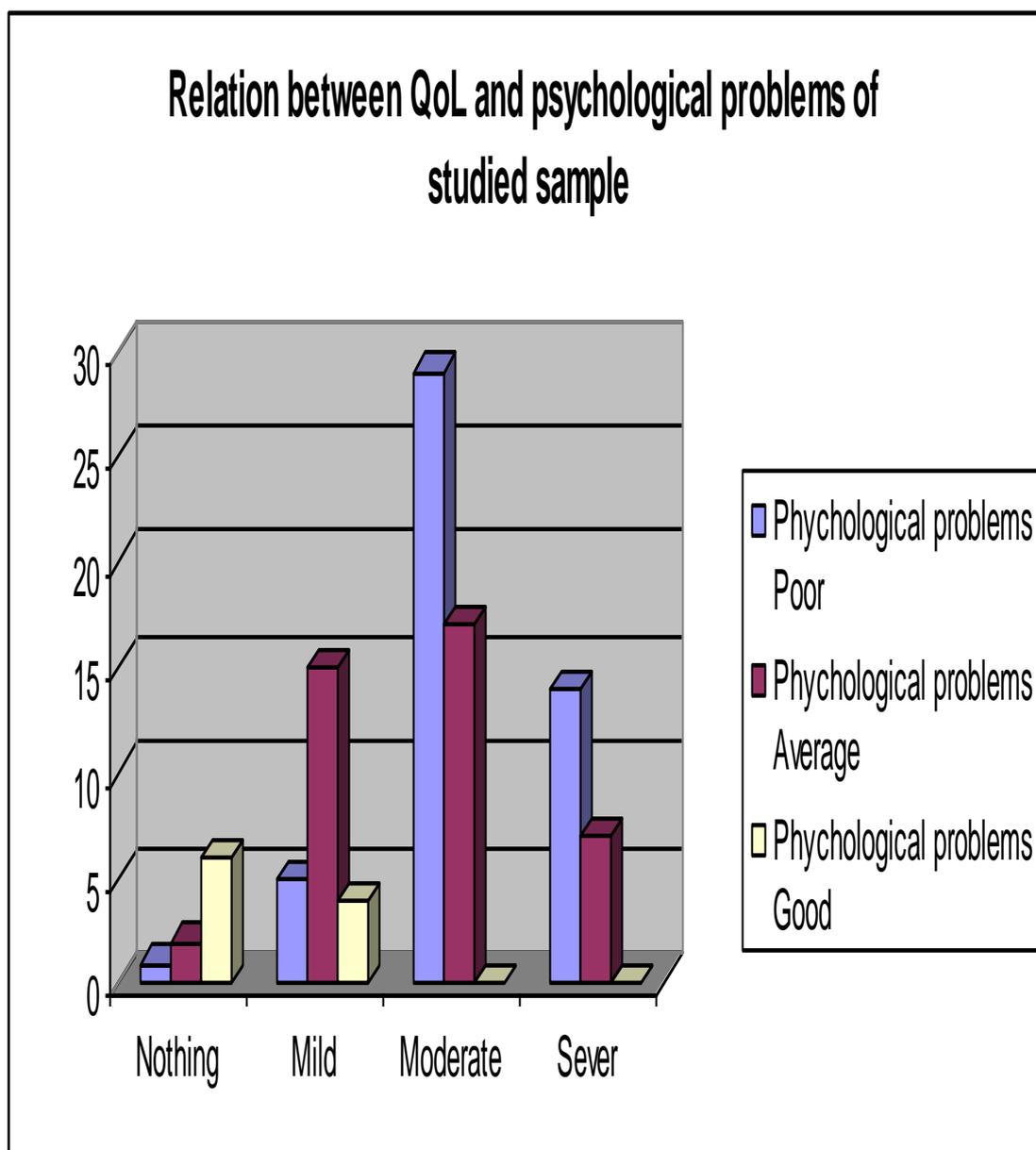
Figure (6)

Relation between stages of disease of the studied sample and their QoL

Figure (7)

Relation between physical problems of the studied sample and their QoL

r =0. 83   p<0.05

Figure (8)

Relation between QoL and psychological problems of studied sample

r =0. 96   p<0.05

Figure (9)

r =0. 95   p<0.05

Figure (10)

Relation between QoL and sexual problems for women witn breast cancer

r =0. 71   p<0.05

Figure (11)

Relation between QOL and sleep problems and rest
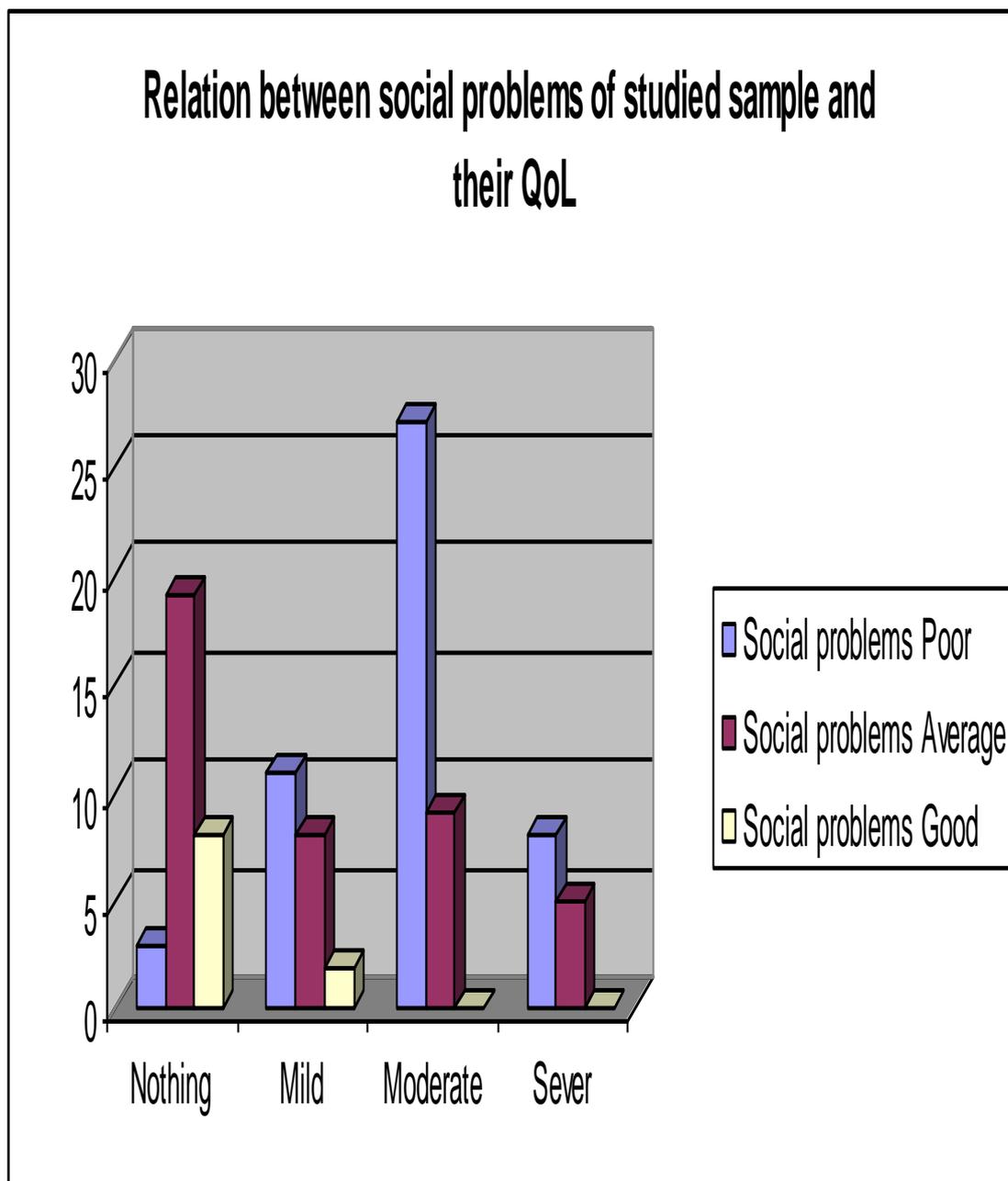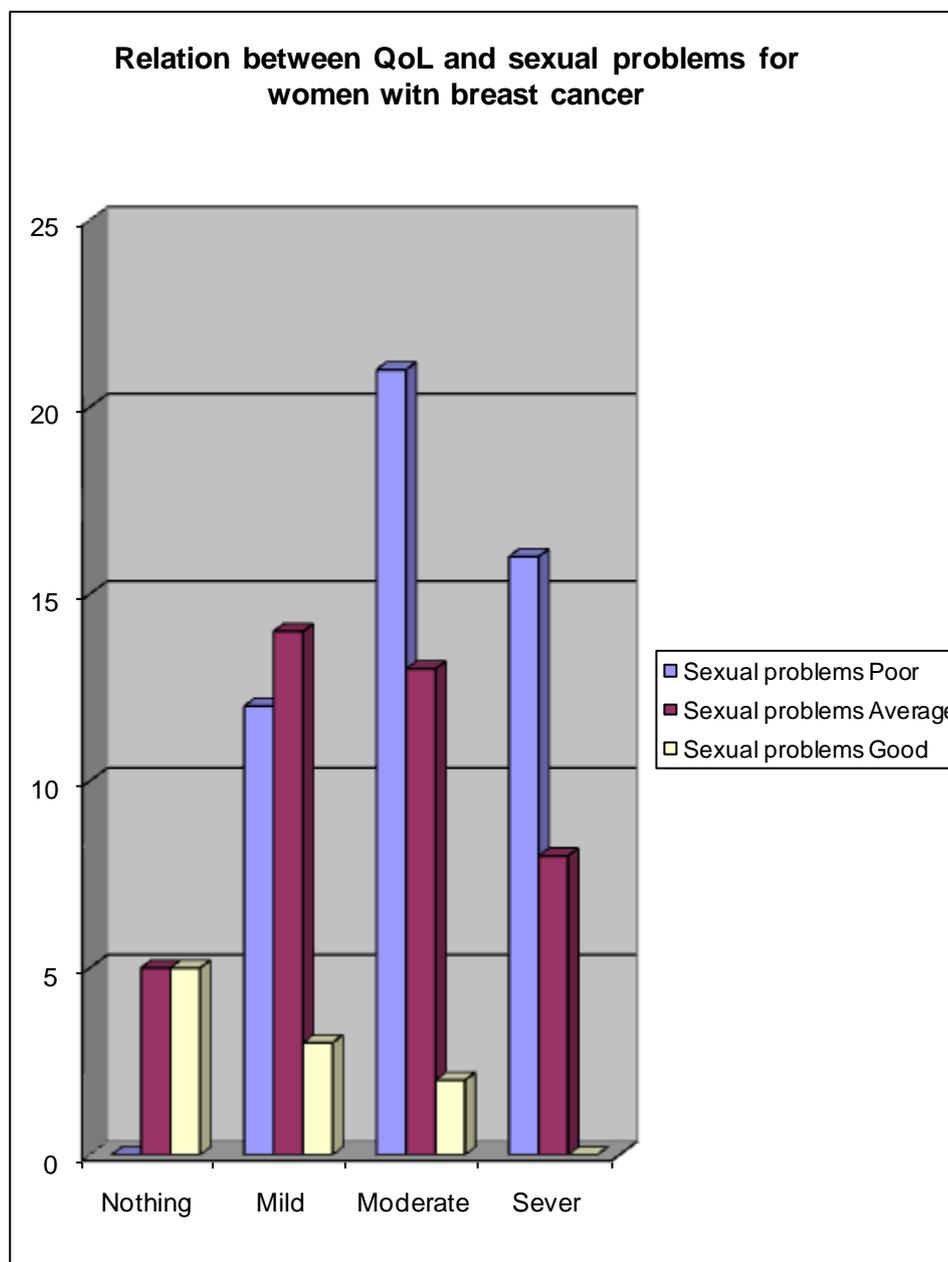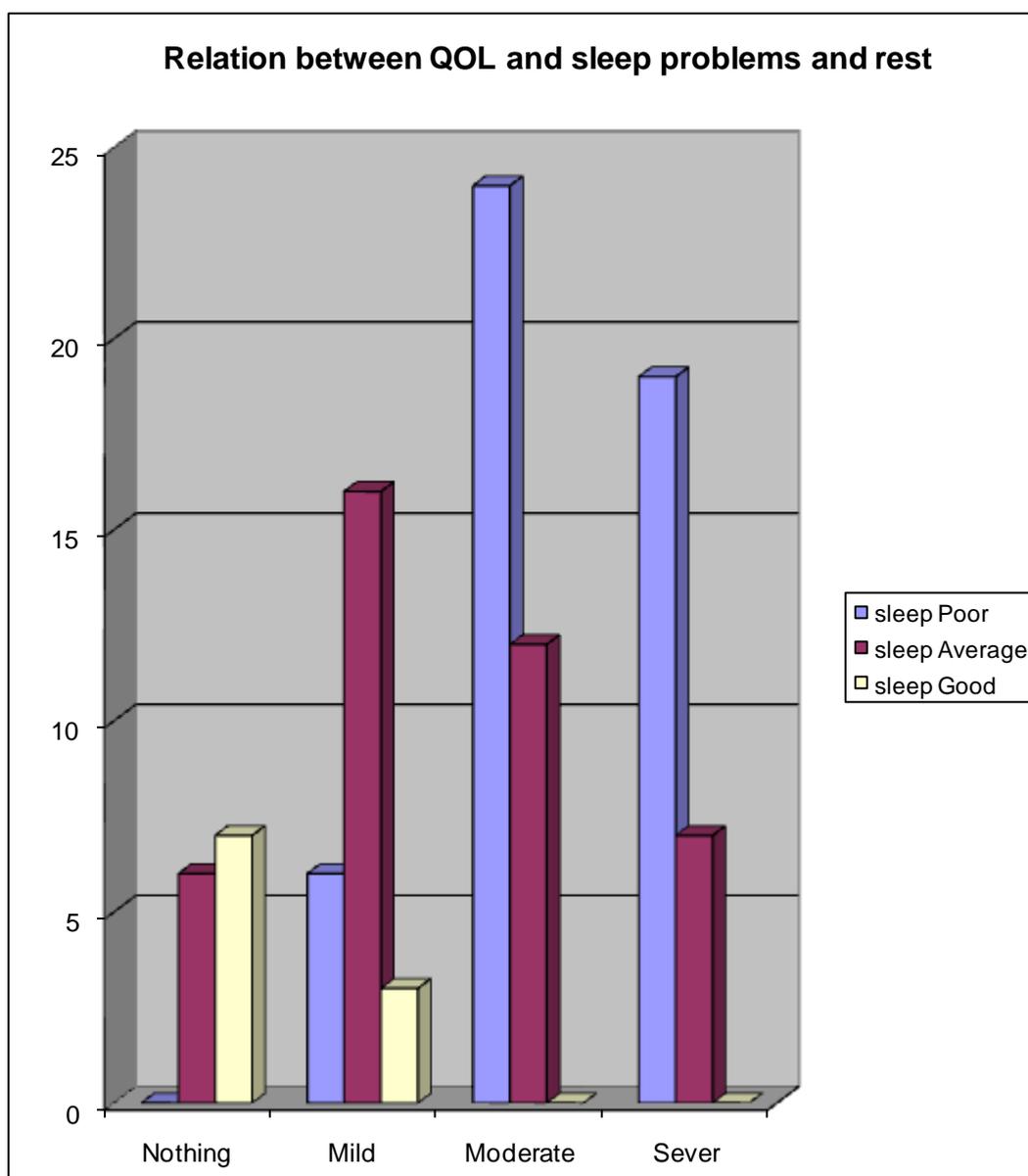
r =0. 84   p<0.05

Figure (12)

total dimensions of QOL for women with breast cancer